

## Economics 679(L01) Health Economics I

|               |                                   |                    |                |
|---------------|-----------------------------------|--------------------|----------------|
| Instructor:   | Prof. Mingshan Lu                 | Lecture Location:  | SS423          |
| Phone:        | 403-2205488                       | Lecture Days/Time: | MW 14:00-15:15 |
| Email:        | lu@ucalgary.ca                    |                    |                |
| Office:       | SS328                             | Winter 2023        |                |
| Office Hours: | MW 18:30-19:30, or By appointment |                    |                |

### Course Description:

Health care industry is a multi-billion dollar industry; it is largely complex and constantly evolving. Health care reform is one of the most critical and challenging issues facing countries around the world; countries including Canada are experimenting with various approaches to make the existing system work more efficiently. These on-going efforts will generate profound impacts on all sectors in the health care industry for many years to come.

This course introduces students to the fundamental trade-offs and principles common to global health care systems. Students will learn how to apply basic economic concepts, theories, and analytical tools to understanding the special features of health care markets as well as the role of government interventions. Specifics of health care financing policy and reforms from the Canadian health care system as well as other systems that are of particular interest will be discussed. This highly interactive course is designed to help student to establish a conceptual framework to evaluate health care system and policy, to be able to understand and participate in evidence-based decision making in health care.

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All students with an interest in health economics, health services research, and health policy are encouraged to enroll; background in health care field or advanced economics is not required.

**Course Outcomes:**

This course is geared to graduate students with research interests in the fields of health economics, health services research, and health care policy. It is specifically designed to help students to apply the concepts and methodologies of health economics in health care. Throughout the term, students will be exposed to various applied health economics issues with high policy relevance. The course is designed to provide guidance for the students to explore, select and develop their own research project, which will lead to a research proposal or research paper delivered at the end of the term.

**Course Outline (tentative; subject to change)**

| CLASS SCHEDULE  |   |   |   |
|---|---|---|---|
| Course Schedule Date  | Topic, Activities & Readings                                  | Instructor  | Assignments/Due Dates & Times                                       |
| January 9 <sup>th</sup>                                     | Introduction  | Dr. M. Lu   |   |
| January 11 <sup>th</sup>                                    | Systematic Literature Reviews: structuring effective searches | D. Lorenzetti   |   |
| January 16 <sup>th</sup>                                    | healthcare data and analytics in Alberta                      | B. Li & J. Jiang, AHS Analytics                         |   |
| January 18 <sup>th</sup>                                    | Introduction: Canadian Health Care System                     | Dr. M. Lu   |   |
| January 23 <sup>th</sup> , 25 <sup>th</sup>                 | Why is Health Care Industry Different                         | Dr. M. Lu   |   |
| January 30 <sup>th</sup> , February 1 <sup>st</sup>         | RAND Health Insurance Experiment                              | Dr. M. Lu   | February 1 <sup>st</sup> 11:59pm: Term Paper Project outline due    |
| February 6 <sup>th</sup> , 8 <sup>th</sup>                  | Efficiency in healthcare                                      | Dr. M. Lu   |   |
| February 13 <sup>th</sup> , 15 <sup>th</sup>                | Does Treatment Work? – Determinants of Health                 | Dr. M. Lu   |   |
| February 20 <sup>th</sup> , 22 <sup>nd</sup>                | Midterm 1 Reading Week  |   | No class  |
| February 27 <sup>th</sup>                                   | Midterm 1   | Dr. M. Lu   | Exam  |
| March 1 <sup>st</sup> , 6 <sup>th</sup>                     | Equity in healthcare  | Dr. M. Lu   | March 6 <sup>th</sup> 11:59pm: Term Paper 1 <sup>st</sup> Draft due |
| March 8 <sup>th</sup> , 13 <sup>th</sup> , 15 <sup>th</sup> | Payment Systems and Economic Incentives                       | Dr. M. Lu   |   |
| March 20 <sup>th</sup> , 23 <sup>rd</sup>                   | Marketing in Health Care                                      | Dr. M. Lu   |   |
| March 27 <sup>th</sup>                                      | Midterm 2   | Dr. M. Lu   | Exam  |
| March 29 <sup>th</sup>                                      | Artificial Intelligence & Machine Learning in Healthcare      | Guest Lecturer from Centre for Health Informatics (CHI) |   |
| April 3 <sup>th</sup> ~ 12 <sup>nd</sup>                    | Class Mini-conference: Term Project Presentations             |   |   |
| April 19 <sup>th</sup>                                      |   |   | April 19 <sup>th</sup> 11:59pm: Final Term Paper Due                |

**Prerequisites/corequisites:**

Economics 201/203, or with consent of the instructor.

**Required Textbook(s):**

None.

**Recommended Textbook(s):**

None. (For each topic covered, journal publications will be provided as reading materials. )

**Books on Reserve:**

Folland, Goodman and Stano. The Economics of Health and Health Care, 8th edition, Prentice Hall Canada.

Lu, M. & J. Egon (eds.) Financing Health Care: New Ideas for a Changing Society, 1st edition, Wiley – VCH, Weinheim.

Culyer, A.J. & J.P. Newhouse (eds) Handbook of Health Economics (Vol. 1A and 1B), Elsevier, 2000.

Evans, Robert Strained Mercy: The Economics of Canadian Health Care, Toronto: Buttersworth, 1984.

Newhouse, J.P. Free for all? Lessons from the Rand Health Insurance Experiment, Harvard University Press, 1993.

Lisa I. Iezzoni, Risk Adjustment for Measuring Health Care Outcomes, 4th Edition, Health Administration Press, 2013.

Joshua D. Angrist, Jörn-Steffen Pischke, Mastering 'Metrics: The Path from Cause to Effect", Princeton University Press, Dec 21 2014.

Drummond M et al. Methods for the economic evaluation of health care programmes. 3rd ed. Oxford. Oxford University Press. 2005

Abhijit Banerjee, Esther Duflo, Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty. Publicaffairs: 2012

**Desire2Learn:**

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

**Grade Determination/Assessment:**

| <b>Assessment Components:</b> The University policy on grading related matters is outlined in the <a href="#">Academic Calendar</a> . |   |                 |   |
|---|---|-----------------|---|
| <b>Assessment Methods</b>   | <b>Description</b>  | <b>Weight %</b> | <b>Due Date and Time</b>  |
| Class participation   | Grade for class participation is based on attendance, interactions/contributions in class discussions, and demonstrated familiarity with course readings. | 15%             |   |
| 2 Midterms  | The midterms are in-class exams designed and intended to be completed in 75 minutes.  | 50% (25% each)  | February 27 <sup>th</sup> , 2023;<br>March 28 <sup>th</sup> , 2023<br>(tentative) |
| Term Project  | Including presentation at class mini-conference, and a term paper   | 35%             | Term paper due 11:59pm April 19 <sup>th</sup> , 2023                              |

The official grading system will be used. See <http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html>.

**Grade Determination and Final Examination Details**

Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

| Grade | Grade Point Value | Description   |
|-------|-------------------|---|
| A+    | 4.00              | Outstanding   |
| A     | 4.00              | Excellent-superior performance, showing-comprehensive understanding of subject matter   |
| A-    | 3.70              | Very good performance   |
| B+    | 3.30              | Good performance  |
| B     | 3.00              | Satisfactory performance  |
| B-    | 2.70              | Minimum pass for students in the Faculty of Graduate Studies  |
| C+    | 2.30              | All grades below "B-" are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade. |

**ATTENDANCE AND PARTICIPATION EXPECTATIONS:**

Students are expected to attend all lectures and participate in the class discussions. Attendance will be taken for each class. Grade for class participation is based on attendance, interactions/contributions in class discussions, and demonstrated familiarity with course readings. There will be class discussions for almost every class (e.g. designing a project to address a specific policy relevant question). Students are expected to engage in these discussions and demonstrate their understanding of the course materials as well as research abilities.

Students must receive a passing grade on the term project (both presentation and written term project) to pass the course.

The quizzes are take-home exams designed and intended to be completed in 90 minutes. The exam(s) will be open book. The exam(s) will be available on D2L. Student will download the exam from D2L, complete the exam, scan it, and submit using Dropbox in D2L. All students will be accommodated to have 100% additional time to complete and upload the exam, at a time of your choosing, within a 24-hour period determined by the instructor.

This course has no final examination. Instead, the course emphasized writing and presentation skills.

All other course components will also be accessed, submitted, and returned through D2L.

### **Absence from a Test/Exam**

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES under any circumstances, nor may the quizzes be written early. Students unable to write the quizzes because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Department, they need to arrange for a deferred exam with the department.

### **Notes:**

Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.

## **IMPORTANT POLICIES AND INFORMATION**

### **Absence From a Mid-term Examination**

Students who are absent from a scheduled term test or quiz for legitimate reasons are responsible for contacting the instructor via email within 48 hours of the missed test to discuss alternative arrangements. A copy of this email may be requested as proof of the attempt to contact the instructor. Any student who fails to do so forfeits the right to a makeup test.

**Deferred Term Work Form:** Deferral of term work past the end of a term requires a form to be filled out by the student and submitted, along with any supporting documentation, to the instructor. The form is available at:

<https://live-ucalgary.ucalgary.ca/sites/default/files/teams/14/deferral-of-term-work-2020.pdf>

Once an extension date has been agreed between instructor and student, the instructor will email the form to the Faculty of Arts Program Information Centre (ascarts@ucalgary.ca) for approval by the Associate Dean.

### **Deferral of a Final Examination**

Deferral of a final examination can be granted for reasons of illness, domestic affliction, and unforeseen circumstances, as well as to those with three (3) final exams scheduled within a 24-hour period. Deferred final exams will not be granted to those who sit the exam, who have made travel arrangements that conflict with their exam, or who have misread the examination timetable. The decision to allow a deferred final exam rests not with the instructor but with Enrolment Services. Instructors should, however, be notified if you will be absent during the examination. The Application

for Deferred Final Exam, deadlines, requirements and submission instructions can be found on the Enrolment Services website at

<https://www.ucalgary.ca/registrar/exams/deferred-exams>.

**Reappraisal of Grades:**

*For Reappraisal of Graded Term Work, see Calendar I.2*

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

*For Reappraisal of Final Grade, see Calendar I.3*

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

**Academic Misconduct:**

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Student committing academic misconduct during the final exam will not receive a passing grade for the course.

For information on the Student Academic Misconduct Policy, Procedure and Academic Integrity, please visit: <https://www.ucalgary.ca/pubs/calendar/current/k-3.html>

**Plagiarism And Other Forms Of Academic Misconduct**

Academic misconduct in any form (e.g. cheating, plagiarism) is a serious academic offence that can lead to disciplinary probation, suspension or expulsion from the University. Students are expected to be familiar with the standards surrounding academic honesty; these can be found in the University of Calgary calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>. Such offences will be taken seriously and reported immediately, as required by Faculty of Arts policy.

**Recording of Lectures:**

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See <https://www.ucalgary.ca/pubs/calendar/current/e-6.html>.

**Academic Accommodations:**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services. SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their instructor. The full policy on Student Accommodations is available at

<https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

**Research Ethics**

Students are advised that any research with human subjects – including any interviewing (even with friends and family), opinion polling, or unobtrusive observation – must have the approval of the Conjoint Faculties Research Ethics Board. In completing course requirements, students must not undertake any human subject research without discussing their plans with the instructor, to determine if ethics approval is required.

**Instructor Intellectual Property**

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

**Freedom of Information and Protection of Privacy (FOIP) Act:**

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see <https://www.ucalgary.ca/legal-services/access-information-privacy>

**Copyright Legislation:**

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at <https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy> Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

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**Evacuation Assembly Points**

In the event of an emergency evacuation from class, students are required to gather in designated assembly points. Please check the list found at <https://www.ucalgary.ca/risk/emergency-management/evac-drills-assembly-points/assembly-points> and note the assembly point nearest to your classroom.

**Important Dates:**

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>.

**Faculty of Arts Program Advising and Student Information Resources**

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Drop in at SS102, call them at 403-220-3580, or email them at [artsads@ucalgary.ca](mailto:artsads@ucalgary.ca). You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate>, which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Tower.

### **Important Contact Information**

Campus Security and Safewalk (24 hours a day/7 days a week/365 days a year)  
Phone: 403-220-5333

Faculty of Arts Undergraduate Students' Union Representatives  
Phone: 403-220-6551  
Email: [arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca), [arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca), [arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca),  
[arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca)  
Students' Union URL: [www.su.ucalgary.ca](http://www.su.ucalgary.ca)

Graduate Students' Association  
Phone: 403-220-5997  
Email: [askgsa@ucalgary.ca](mailto:askgsa@ucalgary.ca)  
URL: [www.ucalgary.ca/gsa](http://www.ucalgary.ca/gsa)

Student Ombudsman  
Phone: 403-220-6420  
Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca)

### **Campus Mental Health Resources**

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the following resources:

*SU Wellness Centre:* <http://www.ucalgary.ca/wellnesscentre/>

*Student Wellness Services:*  
<https://www.ucalgary.ca/wellness-services/services/mental-health-services>

*Campus Mental Health Strategy website:* <https://www.ucalgary.ca/mentalhealth/>.

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2022-11-25