**Course Description:**
This is a graduate course intended to provide a solid foundation in econometric theory for carrying out empirical work in economics. Covers classical estimation and inference procedures, including linear regression, linear instrumental variables, differences-in-differences, and linear panel data techniques. Also covers the problem of causality and identification in empirical economics.

**Course Outcomes:**
By the end of the course students should be able to formulate credible identification, estimation and inferential strategies to be applied to economically interesting causal questions.

**Course Outline:**
This course will closely follow the path set by the following required text:

**Prerequisites/corequisites:**
Admission to the Master of Arts Economics program or permission of the Department.

Please Note: In planning this course, I assume students are familiar with Stata or an equivalent software, which his required for this course. **A programming tutorial will not be provided.**

**Required Textbook(s):**

**Recommended Textbook(s):**
Causal Inference: The Mixtape (Cunningham)
Econometric Analysis of Cross Section and Panel Data (Wooldridge)
Econometric Analysis (Greene)
Microeconometrics (Cameron and Trivedi)

**Books on Reserve:**
None.
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](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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROBLEM SETS (x4)</td>
<td>20%</td>
</tr>
<tr>
<td>MIDTERM EXAM (November 1)</td>
<td>30%</td>
</tr>
<tr>
<td>FINAL EXAMINATION</td>
<td>40%</td>
</tr>
<tr>
<td>PRESENTATION</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Grade Determination and Final Examination Details
Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.00</td>
<td>Outstanding</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
<td>Excellent-superior performance, showing-comprehensive understanding of subject matter</td>
</tr>
<tr>
<td>A-</td>
<td>3.70</td>
<td>Very good performance</td>
</tr>
<tr>
<td>B+</td>
<td>3.30</td>
<td>Good performance</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Satisfactory performance</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
<td>Minimum pass for students in the Faculty of Graduate Studies</td>
</tr>
<tr>
<td>C+</td>
<td>2.30</td>
<td>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.</td>
</tr>
</tbody>
</table>

Letter grades will be determined of the following mapping:
A+: Greater or equal to 90
A: 85-89
A-: 80-84
B+: 70-79
B: 60-69
B-: 50-59
C+: 49 or below.

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

There will be a department scheduled final examination, held in a classroom, lasting 2 hours. Non-programmable calculators WILL be allowed during the writing of tests or final examinations. Tests and exams WILL NOT involve multiple choice questions. The midterm will take place in class, on November 1st, 2023.
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 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, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
Students’ Union URL: www.su.ucalgary.ca

Graduate Students’ Association
Phone: 403-220-5997
Email: askgsa@ucalgary.ca
URL: www.ucalgary.ca/gsa

Student Ombudsman
Phone: 403-220-6420
Email: 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/.