MGT581: Introduction to Econometrics

4 credits

Spring 2022

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Teaching Assistants
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Course website/moodle: This course uses Moodle.

Office hours: Wolf-Hendrik Uhlbach, Thursday from 3pm to 5pm via Zoom.
Benoît Cornet, Friday from 3pm to 5pm via Zoom or ODY 3.15.
For questions related to the problem sets: George Abi Younes.
Please seek email confirmation before meeting

■ **École**
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COURSE OVERVIEW

This course provides and introduction to the key principles in econometrics. It covers the following topics: linear and non-linear estimators; difference between correlation and causality; techniques to establish causal effects; and interpretation of effect size.

DIDACTIC APPROACH AND CLASS ATTENDANCE

The course involves three main learning channels: theory sessions, practical sessions, and problem sets. The Monday lecture will provide elements of theory, while the Friday sessions will provide hands-on experience with the *R* statistical software. Exercise sessions will follow closely the material covered in class. Students will receive regular problem sets to submit to the T.A.s. The deadline for submission is 4 pm on the Thursday.

LEARNING OUTCOMES

By the end of the course, the student must be able to:

- Recognize pitfalls and bias in data collection and econometric models
- Illustrate the concept of endogeneity
- Check the validity of an econometric result
- Quantify an economic relationship
- Design an appropriate regression model
- Interpret coefficients of econometric regressions

MATERIALS

Slides will be uploaded on Moodle one week before the lecture.

The reference textbook is *not compulsory:*

James H. Stock and Mark W. Watson, Introduction to Econometrics, Third Edition (Updated Edition), Pearson. ISBN: 978-0-13348687-2 (http://www.isbnsearch.org/isbn/9780133486872)

FORM OF EXAMINATION & GRADING

- Written exam accounting for 60 per cent of the final grade.
- Individual problem sets accounting for 40 per cent of the final grade.

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COURSE SCHEDULE: A QUICK OVERVIEW OF THE SESSIONS

Session	Date	Topics
1.	February 21	Introduction and review of key principles
	February 25	No exercise session
2.	February 28	Linear regression with one regressor
	March 4	Exercise session 1
3.	March 7	… Hypothesis tests and confidence intervals
	March 11	No exercise session
4.	March 14	Linear regression with multiple regressors
	March 18	Exercise session 2
5.	March 21	… Hypothesis tests and confidence intervals
	March 25	Exercise session 3
6.	March 28	Nonlinear regression functions
	April 1	No exercise session
7.	April 4	Assessing studies based on multiple regression
	April 8	Exercise session 4
8.	April 11	Recap of key concepts
	April 15	Good Friday
	April 18	Easter Monday
	April 22	Easter Holidays
9.	April 25	Regression with panel data
	April 29	Exercise session 5
10.	May 2	Regression with a binary dependent variable
	May 6	Exercise session 6
11.	May 9	Instrumental variables regression
	May 13	Exercise session 7
12.	May 16	Instrumental variables regression (continued)
	May 20	Exercise session 8
13.	May 23	Experiments and quasi-experiments
	May 27	Exercise session 9
14.	May 30	Q&A session about the final exam
	June 3	No exercise session

Important dates for problem sets:
- Problem Set #1: available on March 11, submission on March 24
- Problem Set #2: available on April 8, submission on April 28
- Problem Set #3: available on May 13, submission on May 26

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