

# Econometric Theory I

Instructor: Marit Hinnosaar

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Contact information:

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Office Hours: Tue 15:00-16:00

Class:

Dates and times: Tue and Thu at 18:00

No class on: Thu Oct 5 and Thu Oct 26

Exams:

Midterm 1: Tue Oct 31 at 18:00

Midterm 2 (take-home): deadline Wed Nov 29 at 18:00

Final: Tue Dec 5 at 18:00

Web: Course materials will be located at Google Classroom. Log-in using your Collegio Carlo Alberto email address.

## Course description

This course provides an introduction to essential microeconomic tools, combining theory and empirical examples.

## Grades

Final course grade will be based on a first midterm exam (40 points), second (take-home) mid-term exam (15 points), and a final exam (60 points).

## Problem sets

Lectures will be accompanied by problem sets. The problem sets will not be handed in. You are encouraged to work on the problems sets in groups.

## Textbooks

1. Wooldridge, "Econometric Analysis of Cross Section and Panel Data", MIT Press, 2010.
2. Cameron and Trivedi, "Microeconometrics: Methods and Applications", Cambridge University Press, 2005.

## List of topics

1. Asymptotic properties of Ordinary Least Squares (Wooldridge, ch. 4)
2. Single equation linear models: IV and control functions (Wooldridge, ch. 5-6)
3. Panel data models (Wooldridge, ch. 10)
4. Cluster Sampling (Wooldridge, ch. 20.3)
5. Quantile regressions (Wooldridge, ch. 12.10)
6. Estimating Average Treatment Effects (Wooldridge, ch. 21)
7. Nonparametric and semiparametric methods (Cameron and Trivedi, ch. 9)
8. Bootstrap (Cameron and Trivedi, ch. 11)