

# Econometric Theory I

Instructor: Francesca Parodi

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Contact information:

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Office Hours: by appointment

Class times: TBD

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), 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:**

- Wooldridge, “Econometric Analysis of Cross Section and Panel Data”, MIT Press, 2010.
- Cameron and Trivedi, “Microeconometrics: Methods and Applications”, Cambridge University Press, 2005.

**List of topics:**

- Asymptotic properties of Ordinary Least Squares (Wooldridge, ch. 4)
- Single equation linear models: IV and control functions (Wooldridge, ch. 5-6)
- Panel data models (Wooldridge, ch. 10)
- Maximum Likelihood method (Wooldridge, ch. 13)
- Binary and Multinomial Response models (Wooldridge, ch. 15-16)
- Generalized Method of Moments, Minimum Distance Estimation (Wooldridge, ch. 14)
- Method of Simulated Moments (notes)