



Fakultät für Wirtschaftswissenschaften
Facoltà di Economia
Faculty of Economics and Management

Master in Public Policies and Innovative Governance LM-63
Master in Data Analytics for Economics and Management LM-DATA
Preparatory Course: Introductory Lectures to the course

27600 Policy, Management, and Innovation in the public sector
27506 Economic Policy

MICROECONOMICS AND MATHEMATICS FOR ECONOMISTS; DATA ANALYSIS FOR ECONOMISTS

a.y. 2024/2025

Lecturers: Alessandro Fedele (12 hours), Mirco Tonin (6 hours)

Language: English

The aim of the part taught by Fedele is twofold. (i) Basic microeconomic concepts are introduced (topics labeled *eco* in the detailed description below). (ii) Mathematical tools used by microeconomic theory are refreshed (topics labeled *math*). In the part taught by Tonin, there will be a review of basic concepts needed to understand empirical studies.

Students with no background in Economics are strongly encouraged to attend these introductory lectures.

Textbooks: (i) A good microeconomics textbook (e.g., Schotter: Microeconomics, Pearson; or, Pindyck and Rubinfeld: Microeconomics, Pearson); (ii) a good "liceo-level" textbook of mathematics.

Content

Alessandro Fedele:

- Topic 1: Introduction to (micro)economics (*eco*); linear equations; Cartesian plane; system of linear equations; derivative of a real-valued function of a single real variable; partial derivatives; exponentiation; unconstrained optimization; constrained optimization (*math*).
- Topic 2: Consumer behavior (budget constraint, preferences, utility); optimal consumption bundle; individual demand and market demand (*eco*)
- Topic 3: Demand and supply; market equilibrium and comparative statics (*eco*).

Mirco Tonin:

- Lecture 1: Understanding data
- Lecture 2: Understanding regressions
- Lecture 3: Understanding causality

TIMETABLE: [click here](#)