

Economics for Data-driven Decision Making

Fall Term – 6 ECTS

Mandatory Course

Prerequisites to Enrol

None.

Overview and Objectives

The objective of this course is to bring students into contact with a broad spectrum of traditional and modern topics in economics and build the connection to data analysis through econometric and machine learning tools. Students will be prompted to think of novel ways of combining ideas from all three fields to develop or improve research projects, public policy and business applications.

Prerequisite reading / requirements

None

Course Outline

This course will introduce students to essential economic principles to enable understanding of how economists approach decision making problems in a broad set of applications through the optimization of formal models. A key focus will be on the use of game theory in the design and redesign of market places. We will analyze an ample set of problems ranging from school choice or kidney exchange programs, matching platforms and recommender systems through the lens of economic theoretical and empirical analysis and shall learn to be economic engineers: think of markets as a set of norms that are designed to achieve a certain goal taking into account the specifics of the market, the informational constraints or the incentives faced by agents.

Required Activities

Attendance to class, working on homework in teams, presentations and a final project. Evaluation will be based on homework, presentation and a final project.

Competences

To be announced

Learning Outcomes

To be announced

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Materials

Recommended Books:

O'Neil, K. (2016) "Weapons of Math Destruction", Crown Books.

Ray Fisman and Tim Sullivan. The Inner Lives of Markets: How People Shape Them – And They Shape Us. PublicAffairs, 2016.

Roth, Alvin "Who gets what and Why: The new Economics of Matchmaking and Market Design"

Additional reading shall be provided by professor as the course starts.