Content of the courses

2025–2026

Head of the master's program: Prof. Laurence Jacquet (laurence.jacquet@cyu.fr)

Content of the courses

1st Term: September to December

Microeconomics I: Choice and Decision Theory – 3 credits

Microeconomic theory of individual decision making in the settings of consumption and production decisions. General Equilibrium, introductory examples.

Econometrics I: Fundamentals of Econometric Theory (begins in the 4th week) – 3 credits

Finite Sample Properties of Ordinary Least Squares. Large Sample Properties with Random Sampling. Instrumental Variable Methods. Generalized Method of Moments Maximum Likelihood Methods.

Mathematics for Economics – 3 credits

Review of essential mathematical concepts in economic theory. Topics: calculus, linear algebra, optimization (Lagrange, Kuhn-Tucker), dynamic optimization, topology, convex sets, correspondences, fixed point theorems, and differential equations (if time permits).

Macroeconomics I: Growth and Overlapping Generation Model (begins in the 4th week) – 3 credits

Solow growth model, empirical growth studies, Ramsey model, OLG model, AK model, endogenous technical change.

Applications of Econometrics I (10 hours) – 3 credits

Applications using Python, Stata, R: linear regression, RCTs, cross-sectional and panel regressions.

Professional seminar

This seminar offers students the opportunity to meet and interact with professionals from various fields in economics, policy, and industry. Each session features a guest speaker who presents his/her career path, daily responsibilities, and insights on their sector. The goal is to help students better understand potential career opportunities and build connections with practitioners.

2nd Term: January to March

Macroeconomics II: Fluctuations – 3 credits

Focus on inflation-unemployment tradeoff in DSGE models. Model simulation and evaluation. Optimal stabilization policies.

Microeconomics II: Game Theory and Choice under Uncertainty – 3 credits

Decision under uncertainty, general equilibrium under uncertainty, tools of game theory.

Applications of Econometrics II – 3 credits

Applied methods in software: PSM, DiD, RDD, natural experiments, nonlinear models (Probit/Logit/Poisson), autoregressive and CAPM models. Empirical examples from top journals.

2 Electives among the Specializations Below

Public Policy

- **Public Economics** – 3 credits
  Public goods, redistribution and economic behaviors, tax incidence, distortions, informational imperfections, optimal taxation. Theoretical and empirical methods.
- **Labor Economics** – 3 credits
  Human capital, wage determinants, education, labor supply, employment and unemployment.

Industrial Organization

- **Industrial Organization** – 3 credits
  Strategic firm behavior, market competition, antitrust policy.
- **Empirical Industrial Organization** – 3 credits
  Structural estimation, demand modeling, auction models, asymmetric information, entry models.

Environmental Economics

- **Environmental Economics** – 3 credits
  Economics of environment and biodiversity, development and energy policy.
- **Applications of Environmental Economics** – 3 credits
  Environment and health, climate change impacts and policy, local pollution, environmental inequality and the effectiveness of environmental policy. Methods range from causal inference, distributional analysis, spatial data analysis, spatial equilibrium models and input-output modeling.

International Economics

- **International Trade** – 3 credits
  Ricardian and Heckscher-Ohlin models, trade under imperfect competition, gravity models, firm-level trade.
- **Research Topics in International Trade** – 3 credits
  Topics with focus on heterogeneous firms and micro data.

3rd Term: April to June

Master's Thesis – 26 credits

Original research on an economics topic of choice, under faculty supervision. Early supervisor selection is advised.

Research Seminar I: Professors Seminar – 1 credit

Students write referee reports on research papers. Emphasis on reading, contextualizing, and critically evaluating research.

Research Seminar II: Students Seminar – 3 credits

Student presentations of their thesis work. Focus on oral presentation and peer feedback.