

Master in Economics

Econometrics and Empirical Economics

Program 2025/2026



AIMS AND SCOPE

The Master aims to provide the most up-to-date tools for econometric and empirical analysis, combined with strong skills in the use of various types of data sets to carry out in-depth studies in most areas of economics.

More specifically, in terms of methods, the EEE M2 program provides a solid training in microeconometrics, non-parametric methods, machine learning, advanced methods for time series and panel data models, high dimensional models, Python programming, and database management system. All these courses are given with an 'applied' focus, and students implement the methods in the context of several projects based on data

In addition, this training in econometric methods is supplemented by courses that are more specific to some economic fields, such as empirical industrial organization, financial econometrics, randomized control trials and policy evaluation, health econometrics, efficiency analysis methods, data analytics and spatial econometrics. The program is completed by an empirical project carried out throughout the whole year within a group of students, enabling them to work together on a "long-term" project.

The training concludes with an internship in a company or administration, as a first step towards professional integration (a thesis is also possible).

By the end of this Master's program, students will be able to perform in-depth empirical analyses in a wide range of economic fields.

Courses are taught in English by TSE faculty members with well-established international reputation in econometrics, empirical economics, industrial organization, and finance among others.

Note: students can apply to either to the full program (i.e. two years) or directly to the 2nd year (refer to the Admission section for further information)

STRENGTHS OF THE PROGRAM

- TSE boasts an internationally renowned research group in econometrics and empirical economics.
- Almost all classes in the program are oriented towards empirical analysis.
- Students develop empirical skills to perform economic analysis in many fields.
- The empirical project done during the year in group allows the student to implement all the acquired tools.
- The program benefits from TSE affiliated research centers' strong ties with a network of large French
 and foreign firms (EDF, Orange, La Poste, Microsoft,...), banks (Société Générale, BNP Paribas,...)
 and insurance companies (AXA, SCOR,...) that provides students with a valuable window of job
 opportunities.

COURSES

1st Year - Master in Economics International Track

SEMESTER 1	SEMESTER 2
Macroeconomics * Game Theory * Theory of Incentives * Applied Econometrics * Intermediate Econometrics * R Programming * Professional Development French as a Foreign Language 2 electives: Environmental Economics Economic History Markov Chains and Applications Probability Modeling Evolution of Economic Behaviour Understanding Real World Organizations Experimental Economics Political Economy Project Management Markets and Incentives: a historical-theoretical perspective Market Power & Regulation ENGAGE	Public Economics * Applied Econometrics * Program Evaluation * 4 electives: Advanced Macroeconomics Advanced Microeconomics Industrial Organization ** Development Economics Environmental & Resource Economics ** Time series ** Panel Data ** Corporate Finance ** Market Finance ** Empirical Industrial Organization Topics in Food Economics Behaviorial and Experimental Economics Dynamic Optimization Martingales Theory and Applications Data Bases ENGAGE
Optional courses Introduction to SAS (for newcomers in the first year of master) Algebra refresher Probabilité refresher Static optimization refresher Econometrics refresher	Compulsory International internship or Master Thesis 1 *

^{*}A minimum score of 10 out of 20 is required

- Industrial Organization: M2 EMO
- Environmental & Resource Economics: M2 EEP
- Economic of Human Development: M2 PPD
- Corporate finance et Market Finance: M2 Finance
- Panel Data or Time series: M2 EEE

^{**}Masters 2 Directors highly recommend to attend these options :

^{***} Math refresher courses opened to M1 and M2 students

2nd Year - Master in Econometrics and Empirical Economics

SEMESTER 3	SEMESTER 4
Compulsory courses:	Compulsory courses:
 Econometric Methods for Empirical Economics Empirical Industrial Organization Nonparametric Econometric Methods Machine learning for economics Database Management System Programming in Python 	 Empirical project (over the 2 semesters) 1 among 2: Advanced Panel Data*** Panel Data 1 among 2: Multivariate Time Series**** Time series 1 among 3: Datanomics: regulation of data spreading and data protection Project Management (i) Ethics of Social Studies
Non-Mandatory:	Equivalent of 15 credit among:
 Professional Development * Algebra Refresher ** Probability Refresher ** Dynamic Optimization Refresher ** 	 Data Analytics (3) Financial econometrics (6) Health Econometrics (3) High-dimension models (3) Spatial Econometrics (3) ***** Randomized control trials and policy Evaluation (6) Methods for Empirical Efficiency Analysis (3)
	Internship or Master Thesis

^{*} Students followed the course " Professional Development" in M1 in 2024-2025 will be exempted.

^{**} Upgrade course in Mathematics, open to students in M1 and M2 of TSE.

^{***}Only for students who followed the Panel Data course in 2024-2025, otherwise student must follow the Panel Data course in M1 2025-2026

^{****}Only for students who followed the Time series course in M1 2024-2025, otherwise student must follow the Time series course in M1 2025-2026

⁽i) Students who followed Project Management in M1 will not be able to follow this course in M2

ADMISSIONS

Admission is based on academic excellence. The program is aimed at fluent English speakers.

First year admission:

• Students should hold a BA or BSc in Economics or in Applied Mathematics, or any recognized curriculum considered as consistent with the program and approved by the TSE selection committee.

Second year admission:

- Applicants from the French higher education system must have validated TSE's 1st year of
 Master's in Economics or Applied Economics or another 1st year of Master's in Applied
 Mathematics and/or in Economics in a university or an institution offering an equivalent 4-year
 degree (e.g., engineering school,...).
- For foreign degree holders, the required degrees are either a BA or BSc, M.A., or MSc, within a recognized curriculum regarded as consistent with the program and approved by the TSE selection committee.
- Some brushing-up in Economics or Maths might be advisable in some cases.

APPLICATION DEADLINES

For the 1st year, students have to apply to the Master in Economics. For the 2nd year, students have to apply to the Master in Econometrics and Empirical Economics.

For more details about requirement documents and application process, please see the <u>Admission</u> section.

CONTACT

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