



## **2024-2025** Master Econometrics and Statistics

#### Joint heads

#### Descriptions

Tanguy van Ypersele tanguy.vy@univ-amu.fr Eva Raiber Eva.raiber@univ-amu.fr Type : Master Domaines : Law, Economics, Management

### **Practical Information**

Registration fees : 243 € Faculté d'Économie et de Gestion Credits : 120

### AIMS

The Master's in Econometrics and Statistics offers two distinct tracks in the second year, providing students with the opportunity to specialize either in research or in a professional pathway.

The first year of the program aims to establish a strong foundation in economics, econometrics, statistics, and Data Science. It familiarizes students with essential theoretical and practical tools to analyze contemporary economic issues and make informed decisions in the realms of business and administration. The second year offers two orientations. The research track develops advanced research skills, providing indepth courses in economic, econometric, statistical methods, and Data Science. Students engage in research projects and write a thesis under the supervision of experienced researchers, preparing them for academic careers or research roles in the industry.

The professional track prepares students students for specialized positions in businesses or administrations. Upon completion of this track, our students will have acquired technical skills to manage and analyze large datasets, soft skills for communication, enabling them to pursue professional careers as Data Scientists or Data Analysts. This track emphasizes the practical application of data science techniques in concrete professional contexts. It also includes either an internship or an apprenticeship in a company, allowing students to apply their knowledge in a professional environment.

Graduates from the research track will have gained indepth expertise in research and data analysis, while those from the professional track will possess practical skills to solve economic and statistical problems in a professional context. These two tracks thus offer diverse opportunities for students seeking a career focused on research or specialized professional positions.

### **TARGET AUDIENCE**

This master's addresses students who wish to further develop their knowledge of quantitative economics with a view to the job market (Bac+5) or doctoral studies. The target audience are students who have completed a bachelor's degree in economics or similar, a bachelor's degree in applied mathematics or a bachelor's degree in social sciences with a quantitative orientation and economics courses.

### **ADMISSION REQUIREMENTS**

First-year entry is recommended but it is possible to enter the second year (M2). All students must submit an application file which will be examined by the pedagogical commission of the Faculty of Economics and Management. Apply at the time of admission on the dedicated platform. For more details on the procedure to follow, please consult the faculty's website.

### STRUCTURE AND ORGANISATION

The first year of Master (M1) consists of two semesters. The first semester is devoted to expanding methodological skills and fundamental economic knowledge. The second semester includes applied courses in the various fields of economics, advanced quantitative courses, and optional courses preparing students for the different M2 tracks.

### **TEACHING AND RESEARCH**

The Master in Econometrics Statistics is part of the École Universitaire de recherche (EUR) AMSE, which includes almost almost a hundred researchers from Aix-Marseille Université (AMU), Centre National de la Recherche Scientifique (CNRS), École des Hautes Études en Sciences Sociales (EHESS), Centrale Méditerranée (ECM) and Sciences Po Aix. The teachers are selected according to their expertise within those institutions. The teaching staff is supplemented with practitioners.

### **MASTER'S TRACKS**

Track: Econometrics Data Science (EDS)

### - Track: Research

### LOCATION AND LANGUAGE

The Master 1 classes can be taken in Marseille or Aixen-Provence. Courses in Marseille are taught exclusively in English. In Aix-en-Provence, most courses are taught in French and a minority in English. M2 tracks are taught exclusively in English. Both M2 tracks are thought in Marseille.



### **KNOWLEDGE TO BE ACQUIRED**

Given the rapid evolution of needs in the job market, this degree will train professionals able to adapt to these changes. Such adaptability implies economic phenomena and requires extensive technical knowledge of economics. The first year of the degree will allow the student to acquire fundamental knowledge of theoretical economics and quantitative methods.

### **SKILLS TO ACQUIRE**

The first year aims at building comprehension of complex economic phenomena, enhancing the students' ability to write a dissertation or a report and to defend it orally. These skills may be strengthened by an initiation in project management. The training has a double target: academic and professional. A solid academic foundation is necessary whatever the direction the students take, enabling them to develop the analytical and thinking skills they will need to advance in their careers. This first year constitutes the foundation upon which specialized professional teachings are built in the second year for students wishing to enter the job market after completing the Master's degree, and advances courses in economics econometrics for those willing to enter a doctoral program.

### INTERNSHIPS, APPRENTICESHIPS, AND PROJECTS

An end-of-study internship is compulsory in the Master 2 EDS "classic" track and optional for the Research pathway, lasting between 3 and 6 months. In the Master 2 EDS "apprenticeship" track students alternate between time at university and time in their firms.

### **CAREER OPPORTUNITIES**

As with all recognized educational institutions, the attractiveness of AMSE school is based primarily on the quality of its students' professional development. Our students find jobs in France and abroad.

Examples of jobs held by our graduates: Data Scientist, Data Analyst, Statistician, Data Manager, Business Analyst, Quantitative Analyst, Consultant.

Watch the alumni talks on Youtube :

https://www.youtube.com/c/AMSEChannel/playlists

### **FURTHER STUDIES**

Students, when enrolled in the research track, can apply to a PhD program and write a thesis, at AMSE or other universities.

### PARTNERSHIPS

Our teaching methods interact with the professional world, adding a professional and operational dimension to our courses. The partners with whom we currently collaborate (internships, advisory boards) and/or who contribute to the training are numerous. The Master's advisory board serves as a means to position the program within the local economic environment and beyond. It guides and validates our pedagogical choices and serves as a listening and informational resource for the socio-economic environment.

### **ORIENTATION ASSISTANCE**

At the end of the first semester in M1, an information meeting is organized to inform students of the possibilities for their M2 and/or to advise them individually if necessary. Although continuing with a Master's degree in Econometric and Statistics is the norm, in some cases students can pursue one of the "Economics" or "Finance" Master's track.

Every year, our alumni meet with students during the school's career day and present their AMSE experience and their career paths.

# HELP WITH FURTHER STUDIES AND PROFESSIONAL INTEGRATION

Students have access to a network of partner companies that they meet regularly during courses and events. They also benefit from "cover letter/resume/individual interview" workshops to guide them in their search for an internship. Finally, they are regularly invited to respond to internship offers that are directed to us.

### **STUDIES ABROAD AND DOUBLE DEGREES**

The master's program is bilingual in M1 and in English only in M2. It welcomes international students (nearly 50%), some of whom receive Eiffel scholarships.

The student can spend the M1 abroad following one of our double degree programs with the universities of Konstanz, Tübingen, Venice, Lisbon, Kent. In this case the student spends the entire year abroad.

Erasmus exchanges are possible in the first semester of M1 if planned the previous year, or in the second semester of M1 depending on the number of places available. Students work in an international environment, speaking and writing in English.