

Master Econometrics Statistics Track Econometrics Data Science

Option(s):
→ Magistère

This is a programme in Data Science built on solid statistical and econometric foundations. Students will learn how to code and apply machine learning techniques as well as interpret and communicate the results of their scientific projects. Besides gaining a solid knowledge of state-of-the-art econometric and machine learning methods and their conditions of use, students will be trained to implement them on real data and to present the results, in oral or written form, to various audiences. Alternatively, students can select the apprenticeship track ("*alternance/ apprentissage*") in which they alternate between coursework at university and work in a firm.

General presentation

● Aims

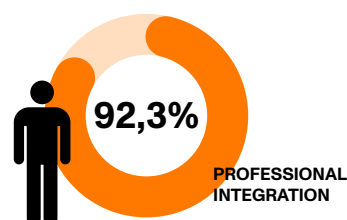
- Ability to manipulate, analyse and interpret data using state-of-the-art machine learning techniques and econometric methods, irrespective of their nature (e.g. quantitative, qualitative, or unstructured data such as text and images) or size.
- Competence in various programming languages (such as Python and R) and data science applications (such as dashboard visualisations), capacity to adapt quickly to any business environment.
- Ability to independently choose the most appropriate machine learning tools and implement them in order to obtain reliable and robust answers that create added value for the company, or to provide public or private administrations with analyses useful in their operations.
- Ability to communicate clearly, orally and in writing, the results of quantitative analyses to a variety of audiences such as non-specialist business managers or professional data scientists.

● For which jobs?

Data analyst AIRBUS HELICOPTERS; Data Scientist STMICROELECTRONICS; Business analyst-Health Economics IMS HEALTH; Data scientist DIGITAL VIRGO; Head of statistical studies POLE EMPLOI; Data scientist KEYRUS; Statistician-Economist SEABIRD; Data scientist consultant CAPGEMINI; Data analyst VOYAGE PRIVÉ; Consultant-advanced analytics BUSINESS & DECISION GROUP; Data manager INSERM; Data scientist EQUANCY; Consultant KPMG; Statistical officer CER FRANCE; Statistician BANQUE DE FRANCE.

Watch the alumni talks on YouTube:

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



Situation of working people in employment 6 months after graduation. This result comes from the professional integration survey conducted among the 2022 graduates of the Econometrics, Big Data and Statistics course, by the Aix-Marseille University Student Life Observatory.

● Admission

Applicants must have taken two validated econometrics courses that cover at least the following: statistics (estimation, tests, confidence intervals) and the econometrics of linear and non-linear models. They must also have at least intermediate-level competence in statistical and econometric software and programming languages (such as R or Python).

Priority access is afforded to M1 students from the Master's in Econometrics-Statistics of the AMSE department at the Faculty of Economics and Management of Aix-Marseille University. However, parallel entry to M2 may be considered for students who have validated 60 credits at M1 Economics level in a programme with a strong quantitative focus.

● Internships and supervised projects

For students in the classic track:

At the end of the year, students perform an internship and write a Master's internship report. The objective of the report is to demonstrate the student's ability to apply the conceptual tools acquired to questions pertaining to the professional world. The student must therefore identify the research question, implement the tools and be able to communicate the results to both a professional and an academic audience. The internship is supervised by an internship director (from the company). The report is defended in front of a jury.

For students in the apprenticeship track:

There is no internship, as students alternate throughout the year between time spent at university and in their firm. Students have to write an end-of-year report and defend it in front of a jury.

Option(s)

→ Magistère Economics, Data Science and Finance

This option provides high level training in quantitative methods and economic analysis, leads to three diplomas in three years (a bachelor's degree, a Master's degree and the Magistère diploma). In the first year of the Magistère the student follows specific courses + some courses of one of these bachelor's degrees from the Faculty of Economics and Management:

- L3 Economics-Finance of the Economics-Management BA degree taught in Marseille,
- L3 Mathematics-Economics of the Mathematics and Computer Science Applied to Human and Social Sciences BA degree taught in Aix.

In the second and the third years of the Magistère, the student follows specific courses + some courses of the Master Economics or the Master Econometrics Statistics or the Master Finance.

A semester of study abroad is an integral part of the program. Students can also spend their second year (M1) abroad as part of the double Master's degrees offered by the school. In-depth English is an important part of the training in the first year for preparing the mobility.

Entry to the Magistère is selective on the basis of the student's academic grades obtained in Licence 2 or French *Classes Préparatoires aux Grandes Écoles (CPGE)*.

→ More info
on our website



→ Admission
on the platforms

- Mon Master
- E-Candidat
- Campus France

→ Language
Programme entirely
taught in English

Heads:
- Pierre MICHEL
pierre.michel@univ-amu.fr
- Badih GHATTAS
badih.ghattas@univ-amu.fr

Information:
- Registration fees to the Master: €243
- Credits: 120
- Registration fees to the Magistère option: fees of the bachelor or the master + €1200 over the three years

amse-aixmarseille.fr/en

