

2024-2025

Master Finance

Parcours : Financial Modelling (MOFI)

Head	Descriptions	Practical information
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AIMS

The programme offers a comprehensive approach to financial and actuarial modelling, equipping students with both empirical and theoretical skills. This enables them to gain a specific understanding of market mechanisms and the tools to model them. The primary objective is to furnish students with a robust set of theoretical and empirical tools, enabling them to thrive in various roles within the financial and actuarial sectors and comprehend future challenges. This track is co-organised with Centrale Méditerranée, and the majority of courses are shared between the two schools.

ADMISSION CONDITIONS

Priority access is afforded to M1 students from the Master's in Finance of the AMSE department of the Faculty of Economics and Management or to second year students from the engineering program of Centrale Méditerranée. However, parallel entry to M2 may be considered for students who have validated 60 credits at M1 Economics level in a course with a strong quantitative focus.

TEACHING AND RESEARCH

This Master's is part of the Ecole Universitaire de Recherche (EUR) AMSE, which includes almost a hundred researchers from AMU, CNRS, EHESS, ECM and Sciences Po Aix.

The teachers are selected according to their research expertise within those institutions, and the teaching staff is supplemented by practitioners.

MASTERS' TRACKS

- Financial Modelling
- Financial Risks and Sustainable Finance
- Corporate Finance and Financial Engineering
- Wealth Management
- Research in Economics and Finance

LEARNING SITES

Faculté d'économie et de gestion Ilot Bernard du Bois site and Ferry site, Centrale Méditerranée.

REGISTRATION

- Initial training
- Continuing education
- Professionalisation contracts (work-study program)

PREREQUISITES

Applicants should have a strong foundation in microeconomics, particularly in contract theory. Additionally, a solid understanding of probabilities, including conditional probabilities, and statistics (estimating and testing) is essential. Familiarity with notions in the economics of uncertainty is recommended.

PROFESSIONAL SKILLS TO BE ACQUIRED

By graduation, students will have acquired the following key professional skills:

- Understanding the functioning of insurance and finance markets.
- Analysing and modelling financial and insurance-related settings to formulate effective strategies.
- Evaluating financial assets before making positioning decisions (buying/selling).
- Evaluating companies or projects for funding or transaction purposes.
- Comparing investment strategies.
- Measuring the performance of financial assets.
- Modelling behaviour in the face of risk.
- Solving complex financial problems.

INTERNSHIPS AND SUPERVISED PROJECTS

At the end of the year, students carry out an internship and write a master's internship report. The goal of the report is to prove their ability to apply the conceptual tools they have acquired to issues from the professional world. The student must therefore identify the question, implement the tools and be able to communicate the results to a professional as well as an academic audience.

The project is supervised by an academic tutor and by an internship director (from the company). The report is defended in front of a jury comprised of the

academic tutor, the internship director and two other people with acknowledged skills (and at least one scholar).

ASSESSMENT OF KNOWLEDGE ACQUISITION

The student's performance on each course is assessed by a written exam and/or by the completion of a project that may be defended during an oral presentation to a jury. To limit the number of personal projects to be carried out by the student, the teachers propose transversal projects when possible.

TARGETED PROFESSIONS

C1105 - Études actuarielles en assurances

C1202 - Analyse de crédits et risques bancaires

C1303 - Gestion de portefeuilles sur les marchés financiers

NSF FIELDS

122B - Modèles économétriques ; Méthodes d'analyse économique

313M - Finances, banques, assurances (non indiquée ou autre)

313N - Etudes économiques et financière

POTENTIAL CAREERS

As with all recognised educational institutions, the attractiveness of AMSE is based primarily on the quality of its students' professional future. Each year our alumni meet with students during the school's Career Day to present their AMSE experience, their career paths and their jobs.

Examples of jobs on graduation:

- Risk Analyst, BNP PARIBAS
- ALM analyst, Boursorama
- Actuarial analyst, AXA
- Insurance-Linked Securities Analyst, Gallagher Re
- Assistant trader, CACEIS
- Junior quantitative trader, Woorton
- Junior financial analyst, TOTAL ENERGIE
- Group Risk Manager, CMA CGM
- Credit risk analyst, Engie Global Market

Watch the testimonies of our graduates Youtube:

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