



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2025/26**  
**MASTER DEGREE**  
**FINANCE AND ECONOMICS (MEF) (Classe LM-16 R)**  
**Enrolled in a.y. 2025/2026**

### **HEADING**

<b>Degree classification - Denomination and code:</b>	LM-16 R
<b>Degree title:</b>	Dottore Magistrale
<b>Curricula currently available:</b>	FINANCIAL ECONOMICS / QUANTITATIVE FINANCE
<b>Length of course:</b>	2
<b>Credits required for admission:</b>	180
<b>Total number of credits required to complete programme:</b>	120
<b>Years of course currently available:</b>	1st
<b>Access procedures:</b>	Open, subject to entry requirements
<b>Course code:</b>	BBG

### **PERSONS/ROLES**

#### **Head of Study Programme**

Prof. Marco Leonardi

#### **Tutors - Faculty**

Prof. Alessandro Barbiero (Internships, Labs, Erasmus)

Prof. Lorenzo Mercuri (Students' inbound orientation)

#### **Degree Course website**

<https://mef.cdl.unimi.it>

#### **Degree Course E-mail**

Email: [mef@unimi.it](mailto:mef@unimi.it)

#### **Disability Referee**

Prof. Paolo Garella

#### **Student Registrar**

via S. Sofia 9/1 - 20122 Milano (MI) Italia <https://www.unimi.it/en/study/student-services/welcome-desk-informastudenti>

### **CHARACTERISTICS OF DEGREE PROGRAMME**

#### **General and specific learning objectives**

Graduates of this master course will receive advanced training in quantitative methodologies and tools suitable to interpret and analyze economic and financial phenomena and will be able to operate directly on financial markets or in international economic institutions. The study program is designed to provide students with a solid background through the development of topics of economic theory, analysis of financial markets and the theory of decision making. It includes study of financial markets from both the point of view of international law, history and economics.

The first year courses, common to both curricula, also provide capabilities in statistics, mathematics and computational techniques for the analysis of financial data and economic time series, also involving the use of latest generation software for Statistical Analysis and Calculus.

The second year of the master program is organized in two curricula.

The first curriculum, named Quantitative Finance, is aimed at preparing financial specialists capable of operating in the areas of pricing of derivatives, portfolio management, risk management and control in the financial sector intended in a broad sense.

The second one, named Financial Economics, is dedicated to the training of professional economists capable of operating at national/international, public/private institutions (including the academia) or at the level of central government in both the financial and economic spheres.

#### **Expected learning outcomes**

In the spirit of harmonization of education within the European Union, the graduates of the master program in Finance and

Economics are expected to attend the following standards according to the so called Dublin Descriptors:

#### A. Knowledge and understanding

Graduates are expected to gain theoretical knowledge and advanced skills on the following areas: economics, mathematics and statistics, corporate and financial law.

For the economic area, the planned teachings cover: monetary and financial economics, microeconomics, macroeconomics and the economics of growth, dynamic investment theory, including under conditions of uncertainty. The theories and analytical tools conveyed by the economic disciplines will provide an understanding of: the processes of economic growth; the functioning of real, money, and financial markets; the mechanisms underlying the decisions of economic and financial operators (including investment decisions), including from a microeconomic perspective.

For the mathematical-statistical area, the teachings include: mathematical and statistical analysis; econometrics; mathematical finance, risk theory, portfolio optimization, and optimal control. The teachings in the quantitative area will enable the learning of analytical tools used in business decisions, management of financial investments and in forecasting macroeconomic scenarios.

For the business and finance area, the planned teachings are on: corporate finance, business management, economics of financial markets and intermediaries. The knowledge and skills acquired in the teachings of the business area will enable graduates to understand: enterprise management policies; internationalization strategies of enterprises; principles of finance business; the functioning of the financial system; and financial risk management.

For the legal area, the teachings focus on: law international finance. The legal teachings will provide skills for understanding the regulations governing markets and institutions finance, business relations and international trade.

Tutorials, which complement all first-year course teachings, will play an important role in the achievement of these outcomes, particularly in learning the methods and techniques of analysis characteristic of the sciences business economics.

Students are also expected to extend and deepen the knowledge thus acquired through participation in seminars conducted by outside experts, by consulting bibliographic materials and through thesis work. Individual learning is assessed mainly through the tests examinations and, for some quantitative teachings, on the basis of tests conducted in computer classrooms. The thesis provides an additional opportunity to test the understanding of the topics covered in the master's degree program.

#### B. Applying knowledge and understanding

Graduates will be able to apply the knowledge and skills acquired to the analysis and management of business tasks posed by the process of economic and financial globalization, to the design and implementation of internationalization strategies of firms, to the assessment of the financial risk, to the identification of the best economic policies to be implemented in the context of open economies (market regulation, competition policies, supervision of financial institutions, etc.); to the mathematical evaluation of investments; to the analysis and forecasting of economic and financial scenarios.

Economic area: with regard to the teaching of economics, skills are learned through the presentation of major economic theories, discussion of major economic problems, and evaluation of the most appropriate policies for the solution of these.

Mathematical-statistical area: the ability to apply quantitative methods of analysis and to set up analytically the decisions economics-business are learned both through the exercises in the relevant teachings and, above all, through the use of these methods in the teachings economics and business administration.

Business and finance area: the ability to apply knowledge and understanding is developed by the teachings of business with reference to business problems, finance evaluation tools and investment management techniques.

Legal area: the ability to apply legal knowledge is naturally fostered by the examination of the regulatory problems posed by the highly globalized commercial and financial markets on which the master's degree program focuses.

The master's degree program also offers the opportunity to participate in internships or traineeships in companies and, alternatively, to attend in-house workshops useful for entry into the world of work.

Individual learning is constantly checked in exercises and assessed mainly by problem-solving oriented written examinations. The ability to apply the knowledge acquired in the bachelor's master's degree finds expression in the dissertation, which also provides an opportunity for verification. The knowledge and skills are achieved and verified in the activities training provided by the Regulations in the areas of Economics, Mathematics and Statistics, Business and Finance, and Law.

#### C. Making judgements

Graduates should acquire the ability to make autonomous and informed judgments by developing critical skills regarding: the effects and effectiveness of the decisions of businesses and economic and financial institutions in which they find

themselves operating, including with reference to the ethical implications of such actions and decisions; to the consequences and effectiveness of economic policies. They should also fully assimilate the principles of professional ethics that guide interpersonal relations in the relevant occupational contexts, and they will also have to acquire the basic principles of the scientific approach to the solution of the economic-business problems they will face in their professional activity. The multidisciplinary approach of the degree program master's degree fosters the development of independent judgment and critical reasoning skills by offering students the opportunity to compare methodological approaches belonging to different disciplines (business-financial, economic, legal and quantitative). The significant presence of both teaching economics and quantitative areas, which provide methodological skills and formal analysis techniques, fosters the learning of the scientific approach to problem solving.

The evaluation of alternative solutions to business management problems in business teachings and the analysis of policy economics in the economics teachings help develop students' critical evaluation skills. An important role is played by thesis work, which requires students to be able to critically combine theoretical reflections and empirical testing. The acquisition of critical skills and autonomy of judgment will be verified in the business teachings through the presentation and discussion of business cases. These skills will also be tested through the provision of possible open questions in the examination papers and, in some cases, through the evaluation of short essays and written papers.

#### D. Communication skills

Graduates will be able to: present and communicate effectively within the company or economic/financial institution in which they work the results of their work (projects, reports, document analysis, etc.); argue their positions and communicate, clearly and effectively in written and oral form; set up cooperative and collaborative relationships within work groups; present proposals and solutions to problems of the relevant work contexts employing mathematical-quantitative tools; access a more specialized audience, e.g., through publication of research results. The ability to communicate effectively in work contexts is primarily acquired through presentation and discussion of business cases. The application of quantitative methods of analysis in business and economics teaching develops students' ability to employ information and empirical evidence to support their proposed solutions in business contexts.

The writing of reports and short essays, provided for by some teachings, and the writing of the thesis degree allow for the enhancement of written communication skills. Participation in tutorials, conducting internships in companies and, alternatively, the participation in in-house workshops enable students to develop interpersonal skills and competencies. The ability to communicate is verified in the tests examination as an element that contributes to the overall judgment and specifically in the case of teachings that provide for its acquisition among the formative objectives. The writing and discussion of the dissertation provide additional elements of assessment.

#### E. Learning skills

Graduates will have the ability to develop and deepen their skills by: consulting specialized scientific publications; consulting consultation of databases and other information on the Web; the analysis of information and data using mathematical-statistical and econometric tools. The course of the master's degree in Finance and Economics provides, in addition, methodological skills that foster the capacity for further learning, both to independently undertake a career path aimed at the exercise of managerial functions or high responsibility in industry and the finance, or to develop the autonomy of functional research to undertake professional activities in research organizations and study offices or to pursue studies in second-level university master's or doctoral programs.

The finance and economics topics on which the business and economics teachings of the master's degree program focus involve regular, frequent consultation of specialized scholarly publications, databases and other information on the Web. The business teachings involve the active participation of students with classroom presentations and business case discussions that require preparatory work designed to stimulate individual learning ability. In addition, students also have the opportunity to attend specific laboratories for learning the methods of economic research in both theoretical and applied fields as optional learning activities. In addition, the capacity for further learning is fostered by the presence of teachings that provide methodological skills and techniques of formal analysis. Finally, the preparation of the dissertation provides students with an additional opportunity to develop learning skills through the independent preparation of an advanced and original research paper.

### **Professional profile and employment opportunities**

The master course in Finance and Economics aims at forming the following professional profiles:

Profile: Consultant and financial adviser.

Functions: the professionals included in this category make suggestions for investment and give technical advice to managers on whom they depend functionally; assist the management of financial investments through the economic and financial analysis of market data; propose predictive models of economics, financial times series and provide guidance for the calibration of theoretical models using market data.

Skills: baggage of theoretical knowledge and operational tools aimed at evaluating financial Investments, as well as financial and credit risks.

Career opportunities: They operate in the office of financial management of banks, investment firms, investment funds, commercial and investment banks, financial intermediaries, for research and financial statement purposes. They also work as

private consultants.

Profile: Operator and analyst of financial markets.

Functions: the figures included in this category act directly on behalf of their company in the financial markets or as brokerage agents, also assist the company in the interaction with the regulatory authorities in the markets thanks to a thorough knowledge of the rules that govern them.

Skills: baggage of theoretical knowledge and legal advice for the management of financial investments, the execution and management of contracts; ability to operate on traditional and digital markets.

Career opportunities: They operate in the office of financial management of banks, investment firms, investment funds, commercial and investment banks, financial intermediaries, for research and financial statement purposes.

Profile: Academic researcher, or researcher in research-departments within economic and financial institutions, both national and international.

Functions: the occupations included in this category exercise active research-functions of high responsibility in the fields of finance and economics within institutions and firms (both private and public, national and international).

Skills: baggage of theoretical knowledge in the economic-legal-financial fields aimed at doing active research (both theoretical and applied) in economic institutions and private companies, or else in banking and financial institutions operating in national and international contexts.

Career opportunities: They operate in universities, research-centers, research-departments of public/private firms, research departments of banks and similar institutions, or research-departments of international and governmental institutions.

### **Initial knowledge required**

To attend the Master program in Economics and Finance it is necessary to demonstrate to possess strong knowledge of mathematics, economics and statistics at the undergraduate level.

Admission to the Master programme in Finance and Economics requires:

#### 1. Curricular requirements

A) Students with an Italian degree (ex. DM 270/04 and DM 509/99) of the following classes:

L-18 Scienze dell'economia e della gestione aziendale

L-33 Scienze economiche

L-35 Scienze matematiche

L-41 Statistica

can apply.

B) Candidates can also enroll in the programme from undergraduate classes other than those listed above after positive evaluation of the Collegio Didattico or its delegates (an Admission Committee or the President of the Collegio Didattico) if they substantively satisfy the access requirements as shown below.

Candidates lacking one or more of the following minimum entry requirements will not be assessed by the Admission Committee:

a) at least 6 ECTS in the area of mathematics (MAT/01 - MAT/05; MAT/07 - MAT/09; SECS-S/06).

b) at least 6 ECTS in the statistical area (MAT/06; SECS-S/01 - SECS-S/05; SECS-P/05).

c) at least 12 ECTS in the economic area (SECS-P/01 - SECS-P/03; SECS-P/06).

The requirements must be met by the date of effective submission of the application for admission.

#### 2. Proficiency in English

Proficiency in English at a B2 level or higher per the Common European Framework of Reference for Languages (CEFR) is required for admission.

The B2-level requirement will be ascertained by the University Language Centre (SLAM) upon admission as follows:

- Language certificate of B2 or higher level issued no more than three years before the date of admission application. You will find the list of language certificates recognized by the University at: <https://www.unimi.it/en/node/39322>. The certificate must be uploaded when submitting the online application;

- English level achieved during a University of Milan degree programme and certified by the University Language Centre (SLAM) no more than four years before the date of admission application, including levels based on language certificates submitted by the applicant during their Bachelor's degree at the University of Milan. In this case the process is automatic, the applicant does not have to attach any certificates to the application;

- Entry test administered by the University Language Centre (SLAM) according to the calendar published on the website: (<https://www.unimi.it/en/node/39267/>)

All those who fail to submit a valid certificate or do not meet the required proficiency level will be instructed during the admission procedure to take the Entry test.

Applicants who do not take or pass the Entry test will be required to obtain a language proficiency certificate recognized by the University (see <https://www.unimi.it/en/node/39322>) and deliver it to the SLAM via the InformaStudenti service by the deadline fixed for the master's programme (<https://www.unimi.it/en/node/39267/>).

Applicants who do not meet the requirement by said deadline will not be admitted to the master's degree programme and may not sit any further tests.

### 3. Personal competencies and skills: assessment criteria

Minimum curricular requirements are necessary yet not sufficient conditions for admission. Candidates will be also evaluated on the basis of personal competencies and skills by an Admission Board appointed by the Faculty Board (Collegio Didattico).

Assessment of personal competencies and skills will be ascertained in two subsequent stages. First, candidates will take a written online admission test, held in English language. Detailed description of the test content, dates and organization will be provided on the website of the master program "Application" section. Candidates who do not sit or reach the minimum level required by the Admission Board in the admission test will not be further evaluated and cannot sit further tests.

Candidates holding an Italian bachelor degree with a final score of 105 or higher out of 110 are exempt from taking the written admission test.

Non EU visa applicants must necessarily take the compulsory online admission test by the first available test session immediately following the deadline for visa seekers' applications at the very latest, under penalty of exclusion.

For candidates who reach the minimum level in the admission test and meet the compulsory curricular requirements, the Admission Board will further evaluate their personal competencies and skills based on academic merit and choice coherence. Academic merit relates to the quality of the previous degree as well as the average grade obtained in the bachelor program. Grades obtained in Bachelor mathematics, statistics and economics courses could also be evaluated to assess candidates' academic merit. Choice coherence relates to coherence between the academic and professional curriculum of the candidates and the learning objectives of the Finance and Economics degree programme.

To allow the Admission Board to assess academic merit and choice coherence, each applicant must submit at time of application:

- a detailed curriculum vitae (it refers to study and work experience and any relevant achievements);
- a detailed study plan of the bachelor program, with the list of exams taken and relative grade, as well as average grade obtained and final degree.

Failing to provide the compulsory documentation will result in the exclusion from the selection procedure.

The Admission Board reserves the possibility to request the applicant an oral interview for admission, held in English language and exclusively done via electronic devices (eg.: via skype or other platforms). The interview is aimed at further verifying the skills as mentioned above.

Applicants must obtain the bachelor degree by 31st December 2025.

#### **Compulsory attendance**

No obligation, strongly recommended.

#### **Internship criteria**

Students willing to take part in an internship lasting at least 100 hours will gain 3 ECTS. More information available here: <https://mef.cdl.unimi.it/en/study/stage-and-internship>

#### **Degree programme final exams**

Having earned at least 102 credits for the learning activities contemplated by his/her study plan, a student may be admitted to undertake the final exam leading to the award of the master's degree. The final exam consists in the submission and public defense, in front of a committee, of a master's dissertation. The master's dissertation is an original piece of work, written by the candidate under the guidance of a supervisor and a co-supervisor. A total of 18 credits are reserved to the design, preparation and writing up of the master's dissertation. The formal assignment of these credits can only take place at the moment when the internship is completed, the dissertation is defended, and the final exam is passed.

## **EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM**

The University of Milan supports international mobility by providing its students with the opportunity to spend study and internship periods abroad. It is a unique chance to enrich your educational path in a new exciting environment.

The agreements entered into by the University with over 300 universities from the 27 EU member countries under the European Erasmus+ programme allow regularly enrolled students to carry out part of their studies at one of the partner universities or to undertake internships at companies, training and research centres and other organisations.

Similar international mobility opportunities are provided outside Europe, through agreements with a number of prestigious institutions.

The University of Milan is a member of the 4EU+ European University Alliance that brings together eight public multidisciplinary universities: University of Milan, Charles University of Prague, Heidelberg University, Paris-Panthéon-Assas University, Sorbonne University of Paris, University of Copenhagen, University of Geneva, and University of Warsaw. The 4EU+ Alliance offers integrated educational pathways and programmes to promote the international mobility of students (physical, blended and virtual).

### **Study and internships abroad**

One of the most effective policies adopted by the European Union in the last few years has been the internationalization of higher education. The various Erasmus programs that have been implemented since the nineties have greatly increased the mobility of European students.

Being a programme with an internationally-oriented educational core strategy, MEF promotes a wide internationalization of its students, and therefore strongly encourages them to spend part of their studies abroad in Erasmus Programmes.

Erasmus provides opportunities to study, train, gain work experience and skills. Students can go abroad from 3 up to 12 months (including a complementary traineeship period, if planned), and may receive additional grants for studying or training. At the end of their foreign stay, students get full recognition of completed activities in terms of credits for their degree. Student mobility is carried out in the framework of prior inter-institutional agreements between the sending and receiving institutions.

Students can also join the traineeship programme, by going abroad from 2 up to 12 months, starting their traineeship from the first year of study. For a traineeship which is an integral part of the curriculum, the sending institution must give full academic recognition for the period spent abroad. For a traineeship that is not part of the curriculum of the student, the sending institution shall provide recognition at least by recording this period in the Diploma Supplement or, in the case of recent graduates, by providing a traineeship certificate. Traineeship may also be established with private and public companies, educational or research centers other than the hosting institution, especially in the field of finance.

MEF academic staff has strong relations with some important European universities, in particular in Germany, France, Poland and Belgium, but also outside the EU, and is actively involved in research and education networks, so that students' activity abroad (including the development of the final dissertation) can be successfully supervised. Moreover, as already said, students attending the Curriculum in Financial Economics (formerly Quantitative Economics) can apply to the double-degree program with the "Master en sciences économiques, orientation generale, a finalite approfondie – ECON2MA - (120 ECTS)", a master-program jointly organized by the Belgian Universities of UCL (Université catholique de Louvain) and Namur.

### **How to participate in Erasmus mobility programs**

How to participate in Erasmus+ mobility programmes

The students of the University of Milan can participate in mobility programmes, through a public selection procedure.

Ad hoc commissions will evaluate:

- Academic career
- the candidate's proposed study programme abroad
- his/her foreign language proficiency
- the reasons behind his/her application

Call for applications and informative meetings

The public selection for Erasmus+ mobility for study generally begins around February each year with the publication of a call for applications specifying destinations and requirements. Regarding the Erasmus+ Mobility for Traineeship, the University of Milan usually publishes two calls a year enabling students to choose a destination defined by an inter-institutional agreement or to find a traineeship position on their own.

The University organises informative meetings to illustrate mobility opportunities and rules for participation.

Erasmus+ scholarship

The European Union grants the winners of the Erasmus+ programme selection a scholarship to contribute to their mobility costs, which may be supplemented by the University funding for disadvantaged students.

Language courses

Students who pass the selections for mobility programmes can benefit from intensive foreign language courses offered each year by the University Language Centre (SLAM).

<https://www.unimi.it/en/node/8/>

Learn more at <https://www.unimi.it/en/node/274/>

For assistance, please contact:

International Mobility Office  
 Via Santa Sofia 9 (second floor)  
 Tel. 02 503 13501-12589-13495-13502  
 Contacts: InformaStudenti;  
 Student Desk booking through InformaStudenti

<b>1st COURSE YEAR Core/compulsory courses/activities common to all curricula</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Advanced Microeconomics and Macroeconomics	12	SECS-P/01
Data Mining and Computational Statistics	9	SECS-S/01
Econometrics	6	SECS-P/05
Financial Investments - Module I: Portfolio Theory; Module II: Portfolio Management	12	(6) SECS-P/09, (6) SECS-P/11
International Economic Law	6	IUS/13
Mathematical Methods for Finance	9	SECS-S/06
Statistical Methods for Finance	6	SECS-S/01
	Total compulsory credits	60
<b>2nd COURSE YEAR (available as of academic year 2026/27) Core/compulsory courses/activities common to all curricula</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Financial Economics	6	(3) SECS-P/02, (3) SECS-P/01
Financial Markets and Financial Crises: A Historical Approach	6	SECS-P/12
	Total compulsory credits	12
<b>Further elective courses common to all curricula</b>		
<b>Students must earn 9 credits for elective activities.</b>		
<b>Second year students may choose, among other activities, the elective "Dynamic Macroeconomics" course.</b>		
<b>Students must earn 3 credits by selecting an Internship/Stage, Laboratories or other elective activities (please check: <a href="https://mef.cdl.unimi.it/en/study/internship">https://mef.cdl.unimi.it/en/study/internship</a> and <a href="https://mef.cdl.unimi.it/en/courses/laboratories">https://mef.cdl.unimi.it/en/courses/laboratories</a>).</b>		
<b>Foreign students with insufficient knowledge of the Italian language can obtain 3 ECTS for "Additional Language Skills: Italian" (please check: <a href="https://mef.cdl.unimi.it/en/courses/italian-language-foreigners-tests-and-courses">https://mef.cdl.unimi.it/en/courses/italian-language-foreigners-tests-and-courses</a>).</b>		
Additional Language Skills: Italian (3 ECTS) <i>Optional, for foreign students holding a foreign qualification</i>	3	ND
<b>End of course requirements common to all curricula</b>		
Final Exam	18	NA
	Total compulsory credits	18

### ACTIVE CURRICULA LIST

FINANCIAL ECONOMICS Course years currently available: 1st  
 QUANTITATIVE FINANCE Course years currently available: 1st

#### CURRICULUM: [BBG-A] FINANCIAL ECONOMICS

<b>2nd COURSE YEAR (available as of academic year 2026/27) Core/compulsory courses/activities Curriculum-specific features FINANCIAL ECONOMICS</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Corporate Finance and Valuation	6	SECS-P/11
Macro and Econometrics for Finance - Module I: Macrofinance; Module II: Financial Econometrics	12	(6) SECS-P/05, (6) SECS-P/01
	Total compulsory credits	18

#### CURRICULUM: [BBG-B] QUANTITATIVE FINANCE

<b>2nd COURSE YEAR (available as of academic year 2026/27) Core/compulsory courses/activities Curriculum-specific features QUANTITATIVE FINANCE</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Numerical Methods for Finance and Portfolio Optimization	12	(6) SECS-S/01, (6) SECS-S/06
Risk Management	6	SECS-S/06

***COURSE PROGRESSION REQUIREMENTS***

None