

b

# University of Messina

## MSc Banking and Finance



---

# Welcome



Dear Applicant,

It is with great pleasure that we welcome you to the University of Messina and to our MSc in Banking and Finance. This programme has been designed to provide students and professionals with the necessary skills and tools to pursue a career in the financial services industry.

Our academic staff has a large experience in establishing successful postgraduate course both in Italy and abroad. Most of the teachers of the MSc banking and Finance currently teach in prestigious universities such as the Imperial College and the Queen Mary University of London. (UK)

Many graduates of our existing MSc programmes are currently working in the financial services industry in Italy and elsewhere. Our main aim is to provide students with a good balance of theoretical and practical knowledge.

This brochure covers what you need to know about the MSc in Banking and Finance. We look forward to working with you, and hope to see you on board in October.

Prof. Marina Dolfin  
Director of MSc Banking and Finance

---

# Contents

|   |           |
|---|-----------|
| <u>UNIME</u>                                  | <u>01</u> |
| <u>The programme</u>                          | <u>02</u> |
| <u>The modules</u>                            | <u>05</u> |
| <u>Dissertation and Internship</u>            | <u>07</u> |
| <u>Accommodation and on-line registration</u> | <u>08</u> |

The information given in this brochure is correct at the time of going to press.  
The University of Messina reserves the right to modify or cancel any statement in it and accepts no responsibility for the consequences of any such changes.

# University of Messina

Founded in 1548, it is a University in continuous growth.

In its 12 Departments, UNIME offers courses in the field of life sciences, sciences and technologies, human and social sciences. Many undergraduate and postgraduate courses are available. Enrolled students are about 24,000 and for several years now the University has launched an intense program to promote international exchanges.

UNIME is one of the main reference points for the city of Messina, the 13th city in Italy for dimension, known as the "gate of Sicily".

Stretched on the sea, the city and its area (with international heritage sites such as Taormina), offer many attractions, so that Messina is today one of the country's leading cruise ship ports.



## Service facilities

UNIME students have the opportunity to take city buses and trams at a very special price. Moreover, they can use transport services, which take them to the University campus, for free.

UNIME boasts a full set of modern and fully equipped sport center runs by CUS-UNIME. Sport facilities are offered promoting the spreading of amateur sports. Sports facilities available at the UNIME are among the most advanced in Italy. Students can practice and take courses on all main indoor and outdoor sports. For more information visit [www.sudunime.it](http://www.sudunime.it)

For VISA and Permit of Stay students will be assisted by the International Relations Unit [foreignstudents@unime.it](mailto:foreignstudents@unime.it)

---

# The Programme

## Programme overview

The MSc in Banking and Finance brings the most recent advancements in both the theoretical and empirical literature and is specifically designed to provide the necessary skills to understand the functioning of the banking and financial systems in the light of the continuous development of the international financial industry. It offers the necessary knowledge to undertake a career in the banking and finance sectors in the role of financial analysts, traders, portfolio and asset managers, commercial banking managers and financial advisors. Moreover, it offers a solid background for those students that wish to continue their post-graduate studies in Italy and abroad. Students learn how to approach financial problems, to test different financial theories, to use softwares (mainly Stata and Matlab), to carry out research and to deal with large datasets.

The programme consists of four taught modules per semester, followed by a 10,000 word dissertation and an internship. More detailed module information follows in this brochure.

## Research strength

The University of Messina combines a very good reputation with a friendly and informal atmosphere. Full details can be found on

<https://www.unime.it>

## Fees

The Master in Banking and Finance is a 1-year Professional Master and costs €2500, payable in 5 installments. There are no scholarships but at the end of the Master the best 10 students get a €500 award.

## Applied learning

The University of Messina has developed and nurtured collaborations with a number of public and private institutions, providing of opportunities for student placements and research co-operation.

## Postgraduate resources

Students have access to excellent computing facilities, offering an ideal environment in which to practise applied analysis. Standard software packages for data analysis, simulation, and word processing are available, including Stata as well as advanced resources:

Openstack for Cloud infrastructure;

Stack4Things for IoT;

Suite Arduino and STM Nucleo for Embedded Systems;

WebSPN for Performance Evaluation;  
Ethereum for BlockChain smart contracts;  
Matlab R2018a with Financial and Financial Derivatives toolboxes and Mathematica for numerical simulations;

Google Optimization Tools for Optimization models;

TensorFlow with Software Library for Machine Learning with tested and optimized modules;  
Apache Hadoop, Spark, NiFi and correlated for Batch and stream processing.

We also provide full subscription access to many well-recognized editors of scientific journals like IEEE, ACM, Springer and Elsevier with the related databases.

## Teaching style

Modules are usually taught in a three hour block format. The first two hours deliver the core theoretical and technical concepts; these are then applied in the remaining hour.

## Dissertation

Over the summer term, you will write a 5,000 – 7,000 words dissertation under the supervision of a member of the board.

## Assessment

The grade for each module is assessed through coursework, which counts for 25 to 40 per cent of the final marks, along with a written exam. The 10,000 word Dissertation written over the summer counts as equivalent to four taught modules.

## Duration

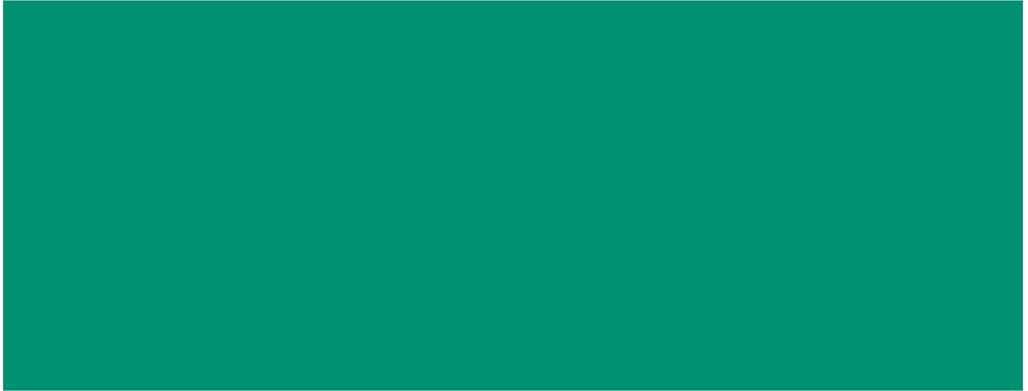
You will be studying over a 12 month period, beginning in October. The courses end in May and the next months are devoted to the thesis dissertation and the internship.

After completing the course, you will have the possibility to access the second year of the M.Sc. course Economics for Banking and Finance of the Department of Economics.



---

# The Programme (cont)



## Programme

| Advanced Mathematics for Economics and Finance | Applied Financial Econometrics | 5,000 – 7,000 word dissertation |
|--|--------------------------------|---------------------------------|
| Econometrics for Finance                       | Banking Regulation             | Internship                      |
| Corporate Finance                              | Macrofinance                   |                                 |
| Investment Management                          | Asset & Risk Management        |                                 |

---

# The modules

## Advanced Mathematics for Economics and Finance

In this module the students firstly have the possibility to refresh the mathematical grounding of mathematics for economics and finance. Then, they are trained on optimization methods applied to the management of financial portfolios and the evaluation of financial derivatives. The module is computationally oriented and students are trained on the use of Matlab for portfolio management, the choice of optimal portfolio, and option pricing.

## Econometrics for Finance

In this module the students have the possibility to refresh the statistical groundings for economics and finance. Then, the main statistical techniques applied in Finance are introduced and tested. The focus is on the implementation and testing of the hypothesis related to recent financial theories. The most used statistical estimators (OLS, time series, panel data, logit/probit) are studied.

## Corporate Finance

The course aims to develop an understanding of how firms raise external finance and design their capital structure. In the first lectures we learn how to value assets via the NPV. Then, we assume that the firm's cash flows are exogenous with respect to financial decisions. In this framework we study the Modigliani Miller theorems stating the conditions under which capital structure is irrelevant and we derive the optimal debt/equity mix. The rest of the course addresses the issue of how a firm's financial and governance structure affects its value once information problems between firms' insiders and investors are taken into account. We focus on the incentives of the firm's insiders and study how capital structure impacts the agency relationship with outside investors; we then turn to *outsiders'* incentives, recognizing that investors play an important monitoring role in the firms they fund.



## Investment Management

The aim of this course is to provide a rigorous training in the modern theory of investment and capital markets and a good understanding of its central concepts. More specifically, its purpose is to show how firms, individuals and more generally speaking financial markets take decisions about optimal investment. Students will mainly study Investments: the optimal decision making process of individuals or firms in choosing optimal portfolios of securities.

# The modules (cont)

## Applied Financial Econometrics

The aim of this course is to provide rigorous training in the application of econometric methodology to finance problems *via* a thorough understanding of its central concepts and presentation of examples. More specifically, its purpose is to show how estimate and test hypothesis using alternative frameworks such as Time Series (both stationary and non-stationary), IV, Panel Data and Limited Dependent Variables models. We will use real research examples to study the above different approaches. The course is intended to provide students with a clear understanding about how a research project should be written. Topics will focus on: investment, portfolio construction, bank competition, international finance and corporate finance.

## Banking Regulation

The course aims at illustrating the discipline of banks and other financial intermediaries, with regard to both public law (financial supervision, crisis management, protection of savings) and private law (financial activities, rules of conduct, corporate governance, etc.). On completing this course, students are expected to know the principles of banking and financial law and to understand the main legal issues concerning the subject matter.

## Macroeconomics

the goal of this course is to provide students an in-depth analysis of dynamics in financial markets, *via* an integrated and formal framework.

On completing this course, students are expected to be able to create optimized portfolios of assets, utilizing acquired knowledge about the concepts of preferences, utility functions and risk aversion; handle the factor risks (such as Fama & French, Momentum) within diversified portfolios; implement models *8i.e.* garch9 that forecast asset volatility, Give some benchmark and exploit the active management approach, build-up appropriate asset strategies in order to generate better performance.

## Asset and risk management

The aim of this course is to acquaint the students with a range of modern techniques which are an essential part of empirical research for asset modelling and risk management. The course will focus on the range of empirical analyses made possible by each new methodology: OLS models for asset returns, time series analysis, ARCH and GARCH volatility models.

# Dissertation and Internship

## Dissertation

Students will prepare their final dissertation under the supervision of a senior member of the academic staff. They can choose their own topic or they can select one of the topic indicated by the Managing Committee of the MSC.

Topics cover several aspects in macrofinance, international finance, asset risk and corporate management such as:

- Monetary Policy and Stock Market Volatility;
- Test of the Purchasing Power Parity Theory;
- Efficient Market Hypothesis;
- Asset Volatility;
- Pairs Trading;
- Investment Management;
- Corporate Finance

## Internship

Different financial firms and banks have hosted in the past our students to carry out their internship. In this period, they have the opportunity to apply the acquired knowledge to real cases.

Internship (100 hours, 4 CFU) is delivered in firms, banks, financial and insurance institutions. During the previous editions the following institutions and firms offered internship: CREDEM, CREACASA, BCC Antonello da Messina, Antonello Servizi, MPS Capital Service, BCC di Cittanova, EURONICS, Sara Assicurazioni, Groupama, Innovabic, University Statistical Center.



---

# Accommodation and on-line registration

## Accommodation

The University offers a limited amount of rooms in its residences (the cost is approximately 180 € per month). Contact the International Cooperation and Foreign Students Unit to check for the availability. The request is not guaranteed.

However, the accommodation office can also help you to find private accommodation nearby. To request private housing send an email to:

presidente.esnme@gmail.com and accommodation1.esnme@gmail.com and look at the site <http://www.esn-messina.it/accomodation>

## Entry requirements

Students should have been awarded at least a three-years undergraduate degree in any subject.

## On-line registration

Follow the procedure for the on-line registration explained in detail in the attached document.

## Further Information

The Department welcomes informal enquiries about any aspect of its graduate programmes. For further information on the M.Sc. Banking and Finance, please contact the Director of the Programme

Marina Dolfin  
Department of Engineering,  
University of Messina  
Contrada di Dio S.Agata, 98166 Messina  
email: [mdolfin@unime.it](mailto:mdolfin@unime.it)  
Tel +39 (0)90 397 7570  
[www.marinadolfin.it](http://www.marinadolfin.it)

or send an email to the Admin Office ([masterebf@unime.it](mailto:masterebf@unime.it)).

