

Master in Advanced Finance

Course Description*



The **Master in Advanced Finance** will cover key financial areas that aim to replicate the same areas and functions in capital markets and investment banking. These areas, which are letter-coded, are:

Areas	Subjects
Corporate Finance (CFI)	Financial issues that have a direct impact on business organisations including leverage, dividend policy, financing or equity valuation, as well as the implications of mergers and acquisitions for the investment banking industry.
Investments (INV)	The investment management process, from both a buying and selling perspective, exploring in depth the tools of portfolio management & investment selection criteria.
Derivatives (DRV)	The foundations of risk control in the different underlying asset classes: fixed income, equities, credits, commodities and foreign exchange (FX).
Financial Accounting Analysis (FAA)	Accounting analysis skills which any financier should master to excel in his/her function. These courses will be biased towards international accounting, creative accounting detection and financial analysis.
Private Equity and Financial Entrepreneurship (PEF)	IE has traditionally enjoyed a reputation as a school for entrepreneurs. In the context of the Masters in Finance, students will see for themselves how private equity and finance serve as excellent tools to become an entrepreneur through acquiring an existing business.
Applied Knowledge for the Financial Manager (APP)	Different key concepts that serve as basic tools for the successful financier, including negotiation, presentation skills or building of financial models using excel.
Economics for Markets (ECO)	Practical macro information that is key for financial markets, including how macro data should be read in order to have an informed opinion of where to invest, and recent macro developments that will shape the world in this century, such as the rise of China or the impact of geopolitics.

The courses for each area will follow a progressive approach, starting from the basics and building up in terms of complexity and sophistication to reach the most advanced courses taught during the third period.

Period 1 (Jan-Apr)

All classes are mandatory

Foundations of Financial Theory

A first semester course designed to present an in depth review of the basic financial concepts, such as arbitrage, market efficiency, risk and preferences, that will set the foundations required to progress on some core areas of a Master in Finance, such as Capitals Markets, Portfolio Management and Corporate Finance. The course is structured in three parts, starting with the microeconomic foundations of finance and capital markets to follow on the theory of choice. It completes with the formulation of the basic equilibrium principles that apply to capital markets, portfolio theory and the practice of finance. Students are expected to capture the theoretical tools and to develop the concepts that will be subsequently used to develop much of what will be taught in the rest of the courses, departing from common methodologies and techniques.

Employability in Finance

The objective of this course is to make you aware of the importance of managing and leading your professional career with a proactive approach. This course offers a wonderful opportunity to develop the management skills and competences required to improve your “employability” as well as your “market value”, given that this is the best time to take control and responsibility of your personal and professional development. The Employability in Finance Course is conducted by members of the Career Management Centre (CMC) with the collaboration of external partners such as career counselling consultants, recruitment professionals and HR managers and headhunters across a wide range of companies within the Finance sector in Spain and abroad. Also your class’s Career Counsellor will work with students throughout the year and will assist students individually on their career planning and strategy.

Financial Maths Programming (APP)

Financial math programming introduces numerical methodologies and computer programming as a means to solve complex financial problems. At the end of this course students will be proficient in Visual Basic (Excel) and MatLab software. All sessions will take place in a computer laboratory. Specific areas like random number generation, MonteCarlo simulation, matrices, correlation calculations, efficient portfolio theory and derivatives programming will be covered.

Financial Accounting and Analysis (FAA)

This course will explore the main items within corporations’ financial statements and how financial information is communicated to external parties. It will look at financial accounting from an international accounting perspective. Additionally, the course will examine consolidation policies and accounting for international corporations.

Introduction to Capital Markets (INV)

This course will examine the foundations of the investment banking industry and the capital markets where it operates. The new participant will be introduced to the world of finance by covering a broad range of topics such as the structure & divisions of investment banks, the main role each division performs and their links with the different capital markets. This course furnishes students with the basic knowledge and skills they need to participate in interview processes at investment banks. Students will also attend practical sessions aimed at further preparation for interview processes at investment banks.

Investment Game - Period I

The purpose of this course is to provide students with an analytical background and practical experience in the designing and managing of investment portfolios. During the course the student will have to build equity, bonds and currency portfolios simulating real life experiences and using live market data. The students will have to make presentations justifying the rationale behind their portfolios and their security selection. The grading of the course will be based on both the return of the portfolios and the quality of the analytical reasoning underlying their investments.

Derivatives and Risk Management (DRV)

This course will analyze the foundations of derivatives, their valuation, and how they are used to manage risk and for investment decisions. The student will learn the management of financial risk as well as the different techniques available to measure said risk. The course will also cover the evaluation of financial risks both in financial and non financial institutions and the role of risk management within the overall corporate strategy.

Corporate Finance (CFI)

This course explores the foundations of financial theory through of the analysis of the financial situation of a business and drivers of the cost of capital, the evaluation of capital investment decisions, and the determination of the optimal capital structure. The student will also cover advanced corporate finance topics like dividend and buy back policy, corporate restructuring, and issuance of securities, agency problems, asymmetric information, or executive compensation policies.

Financial Modeling (APP)

The financial modeling course will deal with the effective use of the spreadsheet as a basic tool for financial analysis, data modeling, construction of financial models and specific tools oriented to financial analysis. The course will equip students with a solid understanding of the modeling process.

Quantitative Finance I (APP)

This course will provide students with a working methodology and a solid knowledge base for the use of statistical and econometrical tools in finance. Through case analyses and problem solving in class, students will gradually feel comfortable with the most common statistical and econometric techniques used in finances.

Strategic Macroeconomic for Investors (ECO)

The economic environment provides many of the critical parameters for companies and investors in an increasingly integrated world. Economic expansion or recession will change all business forecasts; market structure will affect profitability; fluctuating exchange rates will have an impact on costs, sales, risk perceptions and debt levels; the state of the national budget or interest-rate decisions can color a company's future; and the overall state of the economy and its future prospects are the key elements in overseas investment, production or sales decisions and strategies.

This course will provide students with a framework to understand how macroeconomic variables and government actions affect business activity and investment decisions.

Fixed Income Fundamentals (INV)

This course is a practical approach of how bonds are traded in the financial markets and the key determinants of their performance and valuation.

Period 2 (Apr-Jun)

Mandatory Classes

Valuation and Equity Research (INV)

The equity research course will explain the foundations of the sell side process within the equities world by focusing on how analysts look at listed companies, build their valuation models and issue investment recommendations interacting with the buy side. This course will include practical approaches to the most common valuation methods employed by equity analysts, the production of financial forecast models, the drafting of research notes and how these influence investors' attitudes.

Portfolio Management (INV)

The key concepts of portfolio management theory will be studied during this second period, including topics like the efficient portfolio, correlation between asset classes, and risk measuring techniques applicable to the investment process, such as the information ratio. The course will cover the main implications of asset management in main asset classes:

equities, bonds and alternative investments.

Advanced Corporate Finance (CFI)

This course will explore the advanced foundations of financial theory by analyzing the financial situation of a business, evaluating capital investment decisions, examining capital cost drivers and determining the optimal capital structure. The course covers other topics in the field of advanced corporate finance, such as dividend and buy back policy, corporate restructuring, and issue of securities, agency problems, asymmetric information, or executive compensation policies.

*Electives***

Master in Advanced Finance students are given the opportunity to specialize in a particular sector by choosing relevant topics for that sector including:

Finance Portfolio and Entrepreneurship	Financing Start-ups, Venture Capital, Private Equity, Entrepreneurship through Acquisitions
Foundation in New Financial Architectures	Financial Stability Institutions, Central Banks and Monetary Policy, Geopolitics
Cutting-Edge Financial Issues	Islamic Finance, Behavioral Finance, Distressed Investing, Asset Liability Matching, Financial Markets Regulation, Value Investing, Equity Strategy, Equity Research
Foundation in Emerging Trends	Investing in Emerging Markets, Commodities
Enhanced Approach to Risk Management	Risk Governance, Measurement and Evaluation of Risk, Corporate Derivatives, Credit Analysis, Financial Statement Analysis
Sustainability and Financial Inclusion	Socially Responsible Investments, Investing in Climate Change, Corporate Governance, Financial Reporting
Capital Markets	Equity Capital Markets, Debt Capital Markets, Full-range Derivatives (Exotic Options, Hybrid Products, Structured Products)

Investing in Emerging Markets (ECO)

It is simply not possible to understand global financial markets without understanding the dynamics of emerging markets: their weight in global economy growth, trade, population, impact on the production and consumption of basic resources, relevance in terms of foreign reserves, etc. All these factors should place them firmly on the radar of any investor. How could you invest in BHP Billiton or Volkswagen without knowing how important China is for these companies? Or how could an investor invest in Telefónica without at least analyzing its Latin American operations? Did anybody notice that China has 6 large cap corporations in the Global Top 25, in second position behind the USA (with 12)? And that PetroChina is the second largest company in terms of market cap globally? Or that the two largest banks in the world are Chinese? These are just a few of the facts that illustrate how emerging markets are, in a way, leading the world. During these sessions, we will talk about the main EM regions, with a special focus on BRICs, the different EM profiles (consumer based countries, commodity producers,

mixed profiles), the tools we can use to invest (from ETF to ADR), how easy it is to invest and edge (using derivatives) in these countries, currencies, main risks and barriers, key companies, investment trends (“bankarization”), and the increasing weight of consumers, housing, energy infrastructure, etc. Concepts such as carry trade, decoupling, correlation or relationship risk/reward will also be reviewed.

Auditing

This course will allow participants, who will be in charge of the audit at the client-end, to acquire a comprehensive understanding of the process of auditing, prepare for the auditors’ visit to run an efficient audit, avoid certain problems at year-end and/or financial reporting periods during the auditors’ visit and will deal with the negotiation of audit fees. In addition, it will cover the subjectivity of derivatives accounting, the main inputs impacting the valuation of these structures and the accounting rules governing them under US GAAP and IFRS.

Derivatives Accounting

This course will allow participants, who will be in charge of the audit at the client-end, to acquire a comprehensive understanding of the process of auditing, prepare for the auditors’ visit to run an efficient audit, avoid certain problems at year-end and/or financial reporting periods during the auditors’ visit and will deal with the negotiation of audit fees. In addition, it will cover the subjectivity of derivatives accounting, the main inputs impacting the valuation of these structures and the accounting rules governing them under US GAAP and IFRS.

Foundations of Banking (TBC)

Equity Derivatives and Volatility (DRV)

This course will concentrate on equity derivatives markets, along with the range of product and strategies available for corporations and investors to trade through derivatives. It will also explore the concept of volatility and how it impacts equity markets, as well as ways to hedge volatility risk or trade volatility.

Financing Entrepreneurial New Ventures

The objective of this course is to expose you to the many dimensions of venture creation and to provide the tools needed to launch a new venture as a stand-alone business or as a unit of a larger corporation. In this course will explore the numerous issues that accompany the design and implementation of a new business idea, paying particular attention to both content (the components of the idea) and process (the steps undertaken to transform the idea into a viable business).

Macroeconomics and Asset Allocation (ECO)

This course takes a look at the real challenges faced by chief investment officers when allocating savings in global portfolios. This course will not deal with the art of stock selection or specific bond selection. It will examine the big global flows based on top down investment. The course will consider the main asset classes available to trade ideas, and how these classes react to macroeconomic data. Additionally, the course will brief students on the valuation tools that strategists use to allocate funds on a global basis.

Commodities Markets (INV)

This is where participants learn about the main types of the increasingly important commodities. The course will also explore the main options used to trade commodities or to hedge commodities risk.

Arbitrage Strategies (INV)

The banking and insurance course is designed to provide a sound grounding on the fundamentals of the commercial banking business, its management and the analysis of financial decision making in relation to specific operations and their impact in the overall financial condition the institution. The course balances the micro (the bank lending function) and macro (capital management and regulation) dimensions of managing a commercial bank and will emphasize the international dimension of banking in the context of ongoing financial globalization.

Islamic Finance (INV)

Islamic finance is becoming an increasingly important field of investment as Gulf investors have become pivotal actors in the world's capital markets. Islamic law (Sharia) only permits very specific products. A deep understanding of the mechanisms used to issue Sharia compliant products will be a big asset for any future financier.

Hedge Funds (INV)

This course will explore the increasingly important hedge fund industry, what is and what is not a hedge fund, the industry basics, its financing sources, the main strategies employed by hedge funds, remuneration structures, the search of alpha and the risks associated with investing in hedge funds.

Mergers & Acquisitions (CFI)

This course will put into practice the knowledge acquired in the different corporate finance and valuation courses and will explore how deal making is structured from the point of view of the companies and from that of corporate financiers.

Creating Value through Corporate Change (CFI)

This course covers the value creation that large corporations can achieve by deep restructuring, and how these opportunities should be identified by the financial markets.

Private Equity (CFI)

This course will explore the role of private equity institutions in today's markets. It will cover how the private equity industry is structured, its financing, its methodology and its approach to investing and divesting. It will also pay specific attention on how leveraged buyouts, the preferred entry routes of the private equity industry, are structured.

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Creative Accounting and Valuation

This course will deal with the main accounting games that companies practice, by offering "accounting minefields" where these can be identified, and providing main defense mechanisms to neutralize them. The student will learn how companies hide debt off balance sheet, how to alter the reported sales, reduce the level of costs or influencing the consolidation perimeter. The main defense mechanisms to identify and correct these abuses will also be explored. This course will give participants a comprehensive understanding of the process of financial accounting to serve as a basis for truly understanding financial statements and accounting numbers.

Behavioral Finance (INV)

Psychology plays a pivotal role in the pricing of assets. On average, during rainy days the stock market underperforms in comparison with sunny days. How human psychology affects these variables will be covered in this course, which will run through the most up to date literature on these issues.

Private Banking and Managing Private Wealth (INV)

Wealth management has become an increasingly important and sophisticated industry, as many financial firms compete to capture and manage the wealth of rich people. The appearance of open architectures has made the private banking industry a dynamic and growing segment of the financial world, where customer acquisition and retention are directly linked to the quality, suitability and sophistication of financial products offered. This course will analyze evolution of the process.

Real Estate Investment (CFI)

This course will analyze the different financial angles associated with extracting value from the real estate sector. Food retailers such as Tesco have recently started to manage their real estate portfolio in a much more aggressive way, opening up tools of cheap finance and value

creation. This course will also explore the mechanisms used to select a real estate investment and monitor its performance.

Equity Capital Markets (TBC)

Project Finance (CFI)

This course will analyze the project finance operations process from the perspective of the provider of capital and that of the user of capital. The course will also cover the mechanism through which risks and rewards are allocated in the projects, their valuation and the different financing structures and their performance.

Social Responsible Investment (APP)

This course will cover the current relationship between finance and sustainable development. From microcredits to the ethical funds, finance offers the asset management industry a wide range of tools to collaborate with the vision of sustainable development, one of the most effective being investment funds with a policy of social responsible investment (SRI), in areas such as water, clean energy or fair trade.

Corporate Derivatives (TBC)

Venture Capital (TBC)

Investing in Climate Change (TBC)

Credit Analysis (TBC)

Hybrid Products (TBC)

Period 3 (Sep-Dec)

Mandatory Classes

Advanced Corporate Finance (CFI)

This course will explore the advanced foundations of financial theory by analyzing the financial situation of a business, evaluating capital investment decisions, examining capital cost drivers and determining the optimal capital structure. The course covers other topics in the field of advanced corporate finance, such as dividend and buy back policy, corporate restructuring, and issue of securities, agency problems, asymmetric information, or executive compensation policies.

Fixed Income Derivatives: flow & structured products (INV)

This course is a practical analysis of how bonds are traded in financial markets and the key determining factors of their performance and valuation. The course will also cover key aspects of hybrid markets.

Quantitative Finance II (APP)

This course will provide students with a working methodology and a solid knowledge base for the use of statistical and econometrical tools in finance. Through case analyses and problem solving in class, students will gradually feel comfortable with the most common statistical and econometrics techniques used in finances.

Negotiation (APP)

Negotiation will explore the theoretical and practical foundations of a successful negotiation process in order to develop the student's capacity and ability to negotiate. It is designed so that students see the "art of negotiation" as a key tool they can use in both their personal and professional lives. The course will follow a practical approach with relevant cases. The course also covers the relevance of communication in the negotiation process.

Presentation Skills in Financial Markets (APP)

The presentation skills course will develop the student's personal communication style and provide them with a toolbox that will allow them to see this key leadership skill both from the

communicator's point of view and that of their audience. The course will cover different situations, including group presentations.

Employability in Finance

Please see course description of Period I.

Multinational Finance, FX Markets & Derivatives (CFI)

The focus of this course is on the unique problems encountered by the international treasurer or chief financial officer of multinational corporations. It is the international sequel of a corporate finance course and as such it revisits the same funding/financing and investment questions within a multi-currency setting. A special attention is given to risk management.

Microfinance (APP)

This course will cover the current relationship between finance and sustainable development. From microcredits to the ethical funds, finance offers the asset management industry a wide range of tools to collaborate with the vision of sustainable development, one of the most effective being investment funds with a policy of social responsible investment (SRI), in areas such as water, clean energy or fair trade.

Historical Episodes in the Financial Markets (INV)

Any equity research analysts working during the dot com bubble had never experienced a prolonged equity crash. As most market professionals tend to be young, it is commonly said that "markets have a young memory". This is a big liability as important historical episodes are not well remembered despite their useful lessons. This course will analyze the main financial crises that have occurred in the markets and will try to explore the main lessons applicable to the future.

Investment Game - Period II & III

Please see course description of Investment Game Period I.

Final Exam

The final exam it is not only a progress measurement tool but an important stage in the drive towards personal development, one of the most important aims of the program, because students are required to synthesize and consolidate what they have learnt in order to prepare and present their recommendations. The exam is to evaluate the personal benefits that this latest work project has brought them in terms of action-oriented synthesis, revision and assimilation of what students have done through the year. For this reason we offer students a number of options as to how they prefer to structure their final exam. The options are:

- Academic Case (normally a financial problem, with some valuation issues)
- Equity Research and IPO Valuation Project
- Academic Research (A case on finance (finance, accounting or macroeconomics) OR a case on Microfinance under the supervision of the microfinance expert)

*Electives***

Measurement and Evaluation of Risk (INV)

Disclosure of value at risk figures has become increasingly popular, as regulators and investors focus their attentions on the risk level that corporations, and specifically financial institutions, are undertaking to achieve a certain level of returns. This course will analyze the history of value at risk (Basel & Cooke Standards, Basel II), its calculations and its main applications and shortcoming in the markets.

Institutions of International Financial Stability

This course will review the changes in the structure of our financial systems and how the far simpler structures of the past have dissolved and have been reformulated in a much fuzzier and complicated fashion. This course will be also analyzing a multilayered financial system from a multidisciplinary perspective: the historical and political pressures that are shaping current

institutions, the underlying economic factors that help to determine how and why, the various systems and institutions function and the legal processes that establish the rules of the game in the financial system. The complexities of the present international financial system mean that a multidisciplinary approach is essential.

Risk Governance (TBC)

Distress Investing and Insolvencies (TBC)

Technical Analysis (TBC)

Equity Strategy (TBC)

Asset Liability Matching (TBC)

Central Banks and Monetary Policy (TBC)

Structured Products (TBC)

Debt Capital Markets (TBC)

****The structure/courses may be altered depending on the faculty, market dynamics and company demands.***

*****An elective class is only available if a minimum of 8 students wish to participate.***