

MODULES AND SUBJECTS

MÁSTER UNIVERSITARIO EN GESTIÓN EMPRESARIAL  
UNIVERSITY MASTER IN MANAGEMENT

<b>MODULE NAME:</b>	<b>CORPORATE FINANCE (FINANCE AND ACCOUNTING)</b>				
<b>SEMESTER</b>	<b>2</b>	<b>TYPE</b>	<b>SPECIALISM</b>	<b>ECTS</b>	<b>7</b>
<b>FACULTY</b>	Dr. Joan R. Tarradellas Dr. Lidija Lovreta Dr. Jordi Vives				

SKILL PROFILE

BASIC SKILLS		TRANSVERSAL SKILLS		GENERAL SKILLS		SPECIFIC SKILLS	
CB 6	X	CT 1	X	CG 1		CE 1	
CB 7	X	CT 2	X	CG 2	X	CE 2	X
CB 8		CT 3	X	CG 3	X	CE 3	
CB 9	X	CT 4	X	CG 4	X	CE 4	
CB 10	X	CT 5	X	CG 5	X	CE 5	X
		CT 6	X	CG 6	X	CE 6	X
		CT 7	X	CG 7	X	CE 7	
				CG 8		CE 8	
				CG 9	X	CE 9	
				CG 10	X	CE 10	X
						CE 11	X
						CE 12	

## OBJECTIVES

---

This course is divided into three clearly distinct parts, dealing with different aspects of finance and corporate finance.

Financial Mathematics and Risk Management will provide a theoretical and practical overview of the basic mathematical concepts used in finance and business. The important topics to be covered include: time value of money, probability distributions, matrices, and return and variance calculations. This will also provide a comprehensive description and analysis of modern risk management, including the regulatory aspects, organizational issues, potential problem areas, and tools to control and manage the many different kinds of risks that affect all companies but especially financial institutions. The emphasis will be given to market risk, credit risk, operational risk and liquidity risk.

Mergers and Acquisitions will look at how to value public and private companies through a case study approach. It covers the different methodologies developed in previous sections and focuses on the Discounted Cash Flow (DCF) method as participants build a DCF analysis for an actual acquisition, using each component of the DCF model: projected free cash flows, Weighted Average Cost of Capital (WACC) and terminal value. The course also covers Multiple valuation, net asset valuation and real-options, which are used to improve the base case valuation.

Finally Ethics and Professional Standards will explore the ethical dilemmas faced by finance professionals, taking a practical view on ethics by considering the responsibilities of individuals within the firm. Going beyond legal compliance, this section will look at codes of conduct and standards of professional conduct (e.g. CFA) to consider their importance to professional careers and the long-term longevity of the finance industry.

## LEARNING OBJECTIVES

---

- Chooses appropriate capital budgeting techniques and correctly apply methods in problem solving and case analysis by identification of relevant cash flows, costs, and salvage values.
- To accurately compute cost of capital and perform weighted average costing computations, given relevant data.
- To determine/discover and explain the appropriate/optimum capital structure of the firm given refinancing requirements and company/market data.
- To understand and apply corporate valuation techniques in identifying estimated market values and intrinsic values of the firm when provided with appropriate data and information.
- To choose from among several long-term financing alternatives and justify choices for mergers, acquisitions, and other opportunities, using appropriate analytical techniques and methods.
- Identifies and analyzes the different types of risks to which financial and non-financial institutions may be exposed.
- Understands how concepts of probability and statistics are applied in risk management.
- Understand the techniques commonly applied in measuring and managing market risk and credit risk.
- Applies appropriate risk measurement techniques to heterogeneous portfolios.

- Understand the difference between market risk and credit risk measurement.
- Give a broad overview of the credit risk measurement techniques.
- Understand the importance of operational risk and how it is measured.
- Understand the difference between economic and regulatory capital.
- Knows the fundamental financial terminology and notation (effective rates, yields, returns, volatility).
- Understand how mathematical principles relate to financial industry.
- Applies appropriate mathematical techniques to solve financial problems.
- Understands basic concepts of valuation.
- Understand the properties of random variables used in finance (prices, returns, interest rates).
- Understand matrix algebra necessary for modeling all types of portfolios.
- Understands the different mechanisms at play when we are confronted with value-loaded decisions
- Knows and understands the standards of professional conduct required of investment professionals and practice making tough choices.
- Is able to fulfill professional duties with reasonable and ethical decision-making processes.
- Is able to identify dilemmas and respond more comprehensively to them.

## CONTENTS

---

### TIME VALUE OF MONEY

- Simple and compound interest
- Discounting and compounding
- Effective interest rates rates
- Annuities and perpetuities
- Applications to project appraisal
- Applications to valuation of bonds and stocks

### PROBABILITY AND STATISTICS

- Laws of probability
- Density and distribution functions
- Application to pricing options
- Moments of a probability distribution: application to financial data
- Most important probability distributions for financial applications

### TIME SERIES ANALYSIS OF RETURNS

- Prices, returns and volatility
- Percentage and log returns
- Distributions of stock prices and returns
- Covariance and correlation

### MATRIX ALGEBRA: SECURITIES AS VECTORS AND MATRICES

- Matrix multiplication: application to linear portfolios
- Construction of stock indices (equally weighted, price weighted, value weighted)

## VALUATION: PRINCIPLES AND PRACTICE.

- Discounted Cash Flow Valuation.
- Cost of Capital and Risk Measurement. Cost of Equity. Cost of Capital. Cost of Debt. Weighted Average Cost of Capital
- Multiples. Estimating transactions and traded companies to assess value
- Real Options. Definition. Identifying types of real options. Commonly made errors.
- Valuing Flexibility. Determining key parameters. Valuation of real options.
- LBO's
  - Triangle Valuation in M&A situations
  - Feasibility of an MBO.
  - Hidden Valuation Variables in a Merger
  - Complex M&A Structures
  - Forward Merger
  - Mezzanine Debt

## RISK MANAGEMENT

- Risk management process
- Types of risk
- Introduction to market risk: sensitivities, VaR and ES
- Market risk
- VaR in practice
- Credit risk
- Economic and regulatory capital
- Basel Accords
- Operational risk
- Liquidity risk
- Black Swan

## ETHICS AND STANDARDS

- The importance of ethics in the finance industry
- Principles for Responsible Investment (PRIs)
- Introducing Environmental, Social and Governance criteria (ESG)
- Review of CFA Professional Standards
- Confronting complex ethical dilemmas
- Strategies to give voice to our values
- Introducing Behavioral Ethics

## METHODOLOGY

---

The course content will be presented through discussions of theoretical concepts that will be followed by various practical examples and exercises as well as the discussion of case studies.

## EVALUATION

---

The final evaluation will be calculated as follows:

1. Class participation: quality, consistency and feedback. (30% min\* - 40% max).

2. Specific evaluation tests: exams. (40% min - 50% max)
3. Carrying out work or projects (10% min –30% max)

In the event of a new health emergency that involves confinement, the activities and evaluation weights will not be altered. In case they cannot be done in person, they will be transferred to a virtual environment. Due to the difficulties in correctly evaluating participation in online environments, EADA may reduce the weighting of this component of the evaluation due to the current pandemic circumstances.