# uc3m Universidad Carlos III de Madrid

# Financial Economics

Academic Year: (2023 / 2024) Review date: 24-04-2023

Department assigned to the subject: Business Administration Department

Coordinating teacher: SERRANO JIMENEZ, PEDRO JOSE

Type: Compulsory ECTS Credits: 6.0

Year: 2 Semester: 2

#### **OBJECTIVES**

At the end of the course students should be able to:

- Compute present and future values of cash-flow streams to compute the net present values of different real and financial investments.
- Have a basic knowledge of the functioning of financial markets and of the way in which investment decisions are made
- Understand the risk-return tradeoff. Understand how diversification affects risk.
- Have a clear understanding of the difference between systematic and diversifiable risk and know how to measure each.
- Understand how interest rates are set and the principles of valuation of fixed income securities.
- Know the basic types of derivatives and understand why and how they are used in risk management.

### **DESCRIPTION OF CONTENTS: PROGRAMME**

# Financial Economics

- -1. Introduction to Financial Markets
- -2. Financial Mathematics
- -3. Investment Appraisal
- -4. Risk and Return
- -5. Portfolio Theory
- -6. The Capital Asset Pricing Model (CAPM)
- -7. Fixed Income Securities
- -8. Derivatives Products

# Reference text books:

- Bodie Zvi, Kane Alex, Marcus Alan (2005), Essentials of Investments, McGraw Hill (Sixth Edition).
- Brealey R., S. C. Myers and F. Allen (2006), Principles of Corporate Finance, 8th edition, McGraw Hill.

### Other useful books:

- Bodie, Z., Kane, A. and Marcus, A. J. (1999), Investments, McGraw Hill (Fouth Edition).
- Grinblatt, M. and S. Titman (2003), Financial Markets and Corporate Strategy, McGraw Hill.

# LEARNING ACTIVITIES AND METHODOLOGY

Teaching methodology will be as follows:

- (1) Each topic or sub topic is presented by the professor in a theory session. After the theory session the students have to study the materials, do complementary readings and work on the relevant problem sets. These problem sets and questions from the students are solved in the next practice session. The problem sets have to be solved at home prior to the practice session.
- (2) The course material for each topic (slides that will be used in theory sessions and problem sets to be solved in practice sessions) is provided in advance through the intranet in Aula Global 2.
- (3) At the beginning of the course there will be two practice sessions that will introduce the students to the use of excel in finance. These sessions will take place in the computer labs and the teacher will guide the students through several computer exercises.

(4) Each teacher has scheduled weekly office hours that the students can use to obtain extra help.

#### ASSESSMENT SYSTEM

Grades will be awarded on the basis of the following pieces of work:

- -Three different evaluation exercises (40%): two written exercises and a partial exam. Out of these grades, the best two will be selected.
- -Final exam (60%). It will be compulsory for all the students and will value the knowledge acquired by the student.
- -Resit. If a student does not pass the course after the final exam, he will have the right to choose between two grades: one with a weight of 60% (the remaning 40% will be accounted for by the work done during the course) and one with a weight of 100% of the final grade.

In order to pass the course you will need at least a 4 (out of 10) in the final exam (and in the resit if you take that exam). If your obtain a grade lower than 4, your final grade (also in the resit) will be 100% the exam grade.

% end-of-term-examination: 60 % of continuous assessment (assignments, laboratory, practicals...): 40

#### **BASIC BIBLIOGRAPHY**

- Bodie Zvi, Kane Alex, Marcus Alan Investments, 10th edition. , McGRAW-HILL 2005...
- Brealey, Richard; Myers Stewart y Allen Principles of Corporate Finance, 11th ed., McGraw-Hill 2014.