

## Asset valuation and selection

Academic Year: ( 2023 / 2024 )

Review date: 07-02-2024

Department assigned to the subject: Business Administration Department

Coordinating teacher: PEÑA SANCHEZ DE RIVERA, JUAN IGNACIO

Type: Electives ECTS Credits : 6.0

Year : Semester :

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Mathematics (Linear Algebra and Calculus), Statistics, Econometrics I and II, Microeconomics III, Financial Economics, Corporate Finance, Financial Systems.

Before attending the practice sessions, students must complete the MATLAB Onramp (<https://MATLABacademy.mathworks.com/>) course. Please email the MATLAB Onramp Course Completion Certificate to [ypenya@eco.uc3m.es](mailto:ypenya@eco.uc3m.es) prior to the first practice session.

## OBJECTIVES

This course presents the main tools for designing and evaluating investment strategies. First, we review the main asset classes and investment instruments. After describing the main asset classes, investment instruments, and portfolio performance measures, we focus on the critical aspects of sustainable financial investing. Next, we review the elements of investment strategies, and the course ends with some suggestions for personal portfolio choice. All the material and the readings are in English. Practice sessions by groups are based on MATLAB Live Scripts. The students must present a final individual project developed using MATLAB.

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## DESCRIPTION OF CONTENTS: PROGRAMME

## PROGRAM:

## Chapter 1. Introduction

What is this course about?

Is this course for you?

MATLAB

A.I. Policy

Grading

Financial asset classes

Investment Instruments

Standardized Asset Description

Appendix: Books and Movies

## Chapter 2. Asset Classes, Investments Instruments, and Portfolio Performance

Asset Classes

Historical Performance

Risk Factors

Investment Instruments  
CFD  
Investment funds  
ETF  
Assessing Portfolio Performance

### Chapter 3. The Elements of the Investment Strategy

Passive Investment  
Active Investment  
Asset Allocation : Strategic, Tactical, Global  
Security Selection  
Market Timing

### Chapter 4. Sustainable Finance

Why is sustainability important?  
Traditional and sustainable finance  
Integrated Value Creation  
Climate Risk and Asset Pricing  
ESG factors  
ESG Investment Strategies  
Green Financial products  
Carbon markets

### Chapter 5. Personal portfolio choice

Preliminaries  
Risk aversion and prudence  
Instruments  
Insurance  
Asset classes  
Life-cycle portfolio choice

## LEARNING ACTIVITIES AND METHODOLOGY

Methodology:

- (1) Theory.
- (2) Cases
- (3) Computer simulations.
- (4) Exercises
- (5) Class discussion.

## ASSESSMENT SYSTEM

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

GRADING:

- ¿ Groups (maximum four persons)
- ¿ Group Practice session (1-10) PDF reports : 10 x 4 = 40 points
- ¿ Individual Project: 60 points.

## BASIC BIBLIOGRAPHY

- COCHRANE, J.H. Asset Pricing, Princeton University Press. , 2005

- - DIMSON, E., P. MARSH, and M. STAUNTON Triumph of the Optimists: 101 Years of Global Investment Returns, Princeton University Press, 2002
- - SHEFRIN, H. Beyond Greed and Fear: Understanding Behavioral Finance, Oxford University Press. , 2002
- A. IImanen Expected returns, Wiley, 2011
- CAMPBELL, J. y VICEIRA, Strategic Asset Allocation, Oxford University Press, . 2002.

#### ADDITIONAL BIBLIOGRAPHY

- H. Minsky Stabilizing an unstable economy, McGraw Hill, 2008
- Monnery, N. Safe as Houses?. A Historical Analysis of Property Prices. ., London Publishing., 2011