

Audencia Business School  
**S4FIN502-572-582\_2015 – PORTFOLIO MANAGEMENT**  
(*GESTION DE PORTEFEUILLE*)

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**Course description**

This course deals with the theory and the application of portfolio management techniques. The aim is to survey the major theories, tools and results in portfolio management. As the course emphasizes not only the theory, but also its practical application, by the end of this course, students are expected to have a good understanding of the asset management market, the financial instruments, and the market practitioners' terminology. In addition, they should be able to develop a fair knowledge and understanding of key issues in asset allocation and portfolio composition and management and to implement adequate portfolio management strategies.

Although modern finance is a highly mathematical field, this course we will use mathematics only to enhance students' understanding.

**Prerequisites**

Students attending this course should be familiar with the high school mathematics and the very basic concepts of probability, statistics, and finance. A basic knowledge of MS Excel (or equivalent) would be helpful.

**Course materials**

Most (but not all) material is on slides. The following book is highly recommended:

- Z. Bodie; A. Kane; A.J. Marcus, *Investments*. McGraw-Hill International (from 6<sup>th</sup> to 10<sup>th</sup> edition)

This is among the most popular investment textbooks for graduate students and many of its features make it consistent with and relevant for CFA curriculum. End-of-chapter exercises contain problems from past CFA exams. Some copies are on reserve in the library.

Another useful book is the following:

- E.J. Elton; S.J. Brown; W.N. Goetzmann; M.J. Gruber, *Modern Portfolio Theory and Investment Analysis*, John Wiley & Sons, Inc. (from 7<sup>th</sup> to 8<sup>th</sup> edition)

This book is more advanced and less practical; however its 7<sup>th</sup> edition is available at *ScholarVox* through Audencia's Mediathèque (at <http://www.mediatheque.audencia.com/>).

The course will be supplemented with handouts and papers covering topics not adequately discussed in the slides or in the textbooks. Students are also encouraged to undertake their own search for additional relevant literature and follow up relevant references contained in the literature identified.

## **Tentative schedule**

Below is the expected schedule for the course. As it is a tentative outline, it may be changed as we progress through the schedule. Deviations from this schedule will be announced in class and a detailed schedule (with proper references to the course material) will be posted on Blackboard during the course with recurring updating.

<b>Session</b>	<b>Agenda</b>	<b>Material<sup>(a)</sup></b>
1	Introduction (I) - The asset management industry and the basics of portfolio management	Chapters 2 & 4
2	Introduction (II) – The basics of portfolio management: a review of the quantitative tools	Chapter 24 & Appendix A
3	The mean-variance framework for the representation of securities and investors' preferences	Chapters 5-6
4	Portfolio selection: the theory	Chapter 6, 7 & 8
5	Portfolio selection: MS Excel application	Chapter 8
6	Single-Index Model and Multi-Index Model	Chapter 10
7	Fama-French model and Arbitrage Pricing Theory	Chapter 11 & 13
8	Practical issues in portfolio management: performance evaluation and asset management fees	Chapter 24
9	Practical issues in portfolio management: performance attribution and style analysis	Chapter 24
10	The frontier of portfolio diversification	Chapter 25

<sup>(a)</sup> Material refers to the 6<sup>th</sup> edition (2005) of Bodie, Z., A. Kane, A.J. Marcus, *Investments*, McGraw-Hill International

## **Class participation**

The course will be highly interactive. Students will be asked to engage and debate will be an important component of each class. Although students will not be graded for their classroom participation, everyone will benefit from engaging in classroom discussion and analyzing critically each topic. Simply put, the stronger the participation level, the more one will get out of this course.

When assignments are scheduled, students are expected to be prepared for class and to have read the assigned material and completed the assigned exercises.

## **Grading**

The final grade is the weighted average of the grade obtained in the Final exam (weight: 70%) and the grade of a Coursework (weight: 30%).

One or two additional points will be awarded to students who get the best results on the In-class quizzes that will be assigned during the course.

*Final exam* – There is a (single) final general written exam. The exam will be in-class, closed book and closed notes and based on the material covered during the entire course (*Materials allowed in the examination room: only the documents supplied – which include a list of formulas for the exam – and basic material – basic calculator, ruler, paper, pencil, etc.*).

It might consist of both multiple choice and open questions. In-class examples and practice problems from the course website should serve as good exam preparation tools. A mock-up exam paper will be also available and discussed by the end of the course.

*Coursework* – The project is designed to apply the portfolio selection and evaluation techniques learnt in class on real life securities. The assignment, the rules, and the deadline of the coursework are described in a separate document available on Blackboard since the beginning of the course. Students are strongly recommended to assess the workload required by this coursework well in advance and to start working on it as soon as possible in order to complete it more effectively.

*In-class quizzes* – Some of the sessions will start with a multiple choice questions test aiming at evaluating the topics covered during the previous session. These quizzes, not compulsory, can only contribute to increase your final grade (by max 2 points).

## **Contacting the instructor**

Usually, the best time to get a quick answer to a course related question is to catch me immediately before or after class, or during a break. If that doesn't work for you, or if you have a question that you feel will take more time to discuss, we can arrange an appointment. Email is generally the best way to contact me and I will try to check my email often, even when not in the office.