

## ASSET PRICING

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| <b>Course code</b>                         | GRAE021  |
| <b>Compulsory in the programmes</b>        | Financial Economics  |
| <b>Level of studies</b>                    | Graduate   |
| <b>Number of credits</b>                   | 6 ECTS (36 contact hours + 2 consultation hours, 124 individual work hours)                      |
| <b>Course coordinator (title and name)</b> | Assoc. Prof. Dr. Silviu Ursu<br><a href="mailto:silurs@faculty.ism.it">silurs@faculty.ism.it</a> |
| <b>Prerequisites</b>                       | None   |
| <b>Language of instruction</b>             | English  |

### THE AIM OF THE COURSE:

This introductory course aims to provide you with an understanding of the theoretical and, *mainly*, practical aspects of the asset management and the pricing of assets in financial markets. We will take an **applied perspective** on various relevant topics, such as risk-return trade-off, diversification, interest rates, efficient markets, portfolio management, valuation and pricing of securities, options and other derivatives, and FinTech applications to investment management and asset pricing. Topics are selected in accordance to the requirements of Chartered Financial Analyst (CFA) and Professional Risk Manager (PRM) world-leading certification for finance and risk management, so to offer the adequate preparation for CFA and PRM exams and for relevant positions in the finance industry, such as research analyst, investment analyst, or portfolio manager.

### MAPPING OF COURSE LEVEL LEARNING OUTCOMES (OBJECTIVES) WITH DEGREE LEVEL LEARNING OBJECTIVES (See Annex), ASSESMENT AND TEACHING METHODS

| Course level learning outcomes (objectives)   | Degree level learning objectives (Number of LO) | Assessment methods        | Teaching methods   |
|---|---|---------------------------|--------------------|
| CLO1. Describe in considerable depth the players, assets, terminology and conventions in financial markets  | LO1.1.  | Final exam                | Lectures, seminars |
| CLO2. Explain in considerable detail various portfolio theories as well as the risk-return tradeoff, efficient market hypothesis and behavioral finance | LO1.1., LO1.2.<br>LO3.1., LO3.2.                | Final exam,<br>Group work | Lectures, seminars |
| CLO3. Describe in considerable depth and use CAPM and multi-factor asset pricing models   | LO1.1., LO1.2.<br>LO3.1., LO3.2.                | Final exam,<br>Group work | Lectures, seminars |
| CLO4. Understand the pricing and valuation of stocks, bonds, options and other derivatives  | LO1.1., LO1.2.<br>LO3.1., LO3.2.                | Final exam,<br>Group work | Lectures, seminars |
| CLO5. Analyze and reflect critically on the FinTech applications to empirical asset pricing   | LO1.1., LO1.2.<br>LO3.1., LO3.2.                | Final exam,<br>Group work | Lectures, seminars |

### ACADEMIC HONESTY AND INTEGRITY

The ISM University of Management and Economics Code of Ethics, including cheating and plagiarism are fully applicable and will be strictly enforced in the course. Academic dishonesty, and cheating can and will lead to a report to the ISM Committee of Ethics. With regard to remote learning, ISM remind students that they are expected to adhere and maintain the same academic honesty and integrity that they would in a classroom setting.



**COURSE OUTLINE**

| Topic  | In-class hours         | Readings                |
|--|------------------------|-------------------------|
| 1. Introduction to Financial Services Industry and Asset Pricing | 4                      | [1], [2], [3], Handouts |
| 2. Risk-Return Tradeoff and Modern Portfolio Theory              | 8                      | [1], [2], [3], Handouts |
| 3. Capital Asset Pricing Model and Multi-Factor Models           | 8                      | [1], [2], [3], Handouts |
| 4. Efficient Security Markets                                    | 4                      | [1], [2], [3], Handouts |
| 5. Pricing and Valuation of Financial Instruments                | 8                      | [1], [2], [3], Handouts |
| 6. Empirical Asset Pricing and FinTech                           | 4                      | [4], Handouts           |
|  | <b>Total: 36 hours</b> |                         |
| CONSULTATIONS  | 2                      |                         |
| FINAL EXAM   | 2                      |                         |

**FINAL GRADE COMPOSITION**

| Type of assignment           | %          |
|------------------------------|------------|
| <i>Group Components</i>      | <b>30</b>  |
| Written Group Report         | 15         |
| Presentation of Group Report | 15         |
| <i>Individual Components</i> | <b>70</b>  |
| Final Examination            | 70         |
| <b>Total:</b>                | <b>100</b> |

**DESCRIPTION AND GRADING CRITERIA OF EACH ASSIGNMENT**

**GROUP WORK**

There will be one formal assignment during the course that counts towards 30% of the final grade and must be completed in a group of up to 4 people. Each group will have to prepare a written report (up to 4 pages) on a specific topic and deliver a 20-minute presentation (according to a schedule agreed at the beginning of the course), followed by questions and discussion.

**EXAMINATIONS**

There will be one written final examination that counts towards 70% of the final grade and covers all topics discussed during the course. It consists of multiple-choice questions and open questions (both theory and quantitative) and is closed book (students are allowed to bring calculators).

**RETAKE POLICY**

Students are allowed to retake the exam in order to pass. The retake exam covers all course material and its weight is 70%. Group work cannot be rewritten / retaken but its evaluation (if positive) is not annulled.

**ADDITIONAL REMARKS**

Regular attendance and positive contributions to class are encouraged and rewarded. Consistent positive contributions will help you if you are on a grade border at the end of the course.

**READINGS AND COURSE MATERIALS**

All necessary readings, including research papers, articles and lecture notes will be distributed in class or via eLearning.

Recommended readings/textbooks:

- [1] *In Pursuit of the Perfect Portfolio: The Stories, Voices, and Key Insights of the Pioneers Who Shaped the Way We Invest.* 2021. Andrew W. Lo and Stephen R. Foerster. Princeton University Press: <https://inpursuitofthepperfectportfolio.com/>
- [2] CFA Institute Resources for Investment Professionals – available at <https://www.cfainstitute.org/en/research/foundation>
- [3] CFA Institute Investment Series by Wiley – available at <https://www.wiley.com/learn/cfashowcase/#portfolio>
- [4] CFA Program Reading 43 on *Fintech in Investment Management* (<https://www.cfainstitute.org/-/media/documents/support/programs/cfa/cfa-program-level-iii-fintech-in-investment-management.ashx?la=en&hash=7E8E4B151F5FA24E1B21D3A17A3F1BE9E8F3960E>)

(Last updated: 2024 08 19)



DEGREE LEVEL LEARNING OBJECTIVES

Learning objectives for **Master of Social Science**

Programme:

Financial Economics

| Learning Goals                                | Learning Objectives   |
|---|---|
| Students will be critical thinkers            | LO1.1. Students will be able to identify underlying assumptions, limitations of previous research; evaluate managerial solution alternatives. |
|   | LO1.2. Students will become <b>independent learners</b> and develop their own comprehension of scientific theories, models, and concepts.     |
| Students will be socially responsible leaders | LO2.1. Students will be able to evaluate past and current practices in their discipline from an <b>ethical perspective</b> .                  |
| Students will be effective communicators      | LO3.1. Students will develop and deliver a <b>coherent oral presentation</b> .  |
|   | LO3.2. Students will develop and deliver a <b>coherent written research paper</b> .   |