

COURSE SYLLABUS

Course Information	
CREDITS (ECTS)	2
DEGREE	Master in Finance / Master Universitario en Finanzas por la Universidad Pontificia de Comillas
Professor	Enzo Mondello, CFA, CAIA, FRM.
Course	CAIA Level 1 Course
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GOALS & CONTENT

GOALS OF THE COURSE

Learning outcomes

The course is designed specifically to provide students with the necessary basics about alternative investments, enabling them to start with the CAIA® program. The course begins with the fundamentals of bonds, stocks, and options relevant to alternative investments. After the finance-related basics, Topic 3 Real Assets of the CAIA® curriculum is covered, discussing commodities and real estate assets and debt. After that, Topic 4 Private Securities will be addressed. The focus is on private equity assets and private equity funds. The course ends with a discussion of convertible bond arbitrage, which is included in Topic 5 Hedge Funds of the CAIA® curriculum.

At the completion of the course, the student will be capacitated to:

- Understand and apply the finance-related fundamentals of alternative investments
- Define various alternative investment types, including real assets, hedge funds, private equity, and structured products.
- Explain the defining characteristics of alternative investments.
- Discuss the differences between traditional investments and alternative investments.
- Define the goals of alternative investing.
- Comprehend the concept of informational market efficiency and recognize the factors that influence informational efficiency in alternative asset markets.
- Calculate bond prices and yields and understand the term structure of interest rates.
- Define arbitrage-free financial models and calculate forward rates.
- Define single-factor default-free bond models and interpret and calculate duration.
- Define single factor equity pricing model and apply the ex-ante and ex-post CAPM.
- Understand the replication approach to calculate forward prices and determine forward prices.
- Understand the difference between forwards and futures and the marking-to-market of futures.
- Understand options and option strategies, identify the risk factors of options, discuss the pricing of options, and explain the option sensitivities.
- Understand real assets such as commodities and real estate assets and debt
- Recognize how to invest in commodities using futures, stocks of commodity firms, exchange-traded funds, and commodity-linked notes.
- Calculate the price of commodity futures, explain backwardation and contango, and discuss the roll yield.
- Discuss commodity exposure in a portfolio and diversification.
- Explain commodity indices.
- Define categories of real estate.



- Describe and calculate payments of residential mortgages and explain their default risk.
- Describe characteristics and the default risk of commercial mortgages.
- Explain mortgage-backed securities (MBS).
- Explain real estate investment trusts (REITs).

- Understand private equity assets and private equity funds
- Describe private equity securities and define mezzanine debt, distressed debt, and leveraged loans.
- Describe pre-IPO private equity investing.
- Explain venture capital.
- Explain buyouts and leveraged buyouts.
- Define private equity funds and discuss the private equity fund intermediation and risk.
- Discuss the relationship between the general partner and the limited partners in a private equity fund.
- Calculate the private equity fund fees.
- Explain the risks and returns of a venture capital fund.
- Explain leveraged buyout (LBO) funds.

- Understand convertible bond arbitrage
- Define a relative value strategy.
- Explain the classic convertible bond arbitrage strategy.
- Define a convertible bond and calculate the price of a convertible bond.
- Define busted, hybrid, and equity-like convertible bonds.
- Define, describe, and apply the concept of delta, gamma, and theta and how they relate to the convertible arbitrage position.
- Explain delta hedging and calculate the number of short shares for a delta hedge.
- Explain return drivers and risks of convertible bond arbitrage.

CONTENT

- 1. Introduction to Alternative Investments**
 - 1.1 What is an Alternative Investment?**
 - 1.2 Foundations of Financial Economics**
 - 1.3 Derivatives and Risk-Neutral Valuation**
- 2. Real Assets**
 - 2.1 Commodities**
 - 2.2 Real Estate and Debt**
- 3. Private Securities**
 - 3.1 Private Equity Assets**
 - 3.2 Private Equity Funds**
- 4. Relative Value Hedge Funds**
 - 4.1 Convertible Bond Arbitrage**

TEACHING METHODOLOGY

General Methodological Aspects of the Course

This class follows the learning objectives of the CAIA® curriculum. Student learning will be assessed by class participation and a final examination. Note that examination success depends on your responsibility to read assigned materials and to attend the classes. Please take the time to familiarize yourself with this material as well as the course schedule. All learning activities will be closely monitored by your instructor to ensure progress to goal fulfillment, as well as to ensure an acceptable level of student satisfaction and engagement in with learning, and in meeting set deadlines.

Cooperative work by students who, in groups, receive an assignment, case, or scenario that requires sharing information and resources among members to achieve a common goal. Based



on the case method, studied by each student and discussed by each group before the individual interventions in each general session.

The case method stimulates inductive learning. From the analysis of concrete examples, different analytical tools are built, and general rules are induced for application to all types of companies and sectors. Therefore, prior study of the cases and active participation in the discussions of the general sessions are essential.

Expository lessons.

Presentations should be evaluated and critiqued by the rest of the classmates or by the teacher to delve deeper into the topic.

Group work dedicated to carrying out a project with a company. The company will present a challenge for the students. The challenge is the project's objective and represents a real problem for the company. The project's theme is directly related to the subject's syllabus. Students work in teams under the professor's guidance to solve the challenge and propose their solution to the company's executives.

Individual study.

Individual reading of various texts (cases, books, magazines, articles, press, internet publications, reports on practical experiences, etc.) related to the subjects of study.

Cooperative work by students who, in groups, receive an assignment that requires sharing information and resources among members to achieve a common goal.

ASSESSMENT & EVALUATION CRITERIA

Assessment	Weight (%)
Final Exam	80%
Assignments, projects and cases	0%
Participation	20%

Grades

Class Participation - 20% of final grade. Participation will be scored primarily on contribution to in-class discussion on the various exercises used throughout the class. Attendance will be taken at the start of each class; students who either miss a large number of classes or are habitually late to class will see a reduction in their participation scores.

Final Exam - 80% of final grade. The final examination is composed of multiple-choice questions and essay questions. The exam assesses comprehension of the concepts, tools, and practices



essential for understanding alternative investments. The final examination specifically requires students to apply past learning in addressing the examination questions. The course evaluation criteria are governed by the following regulations:

1. All students must comply with 100% attendance on the days scheduled for this course. Any absence must be justified. If not justified, it will incur a penalty that will vary depending on the number of days of unjustified absence.
2. The final grade corresponds to the sum of the evaluation activities, evaluation criteria, and weights described in the Evaluation and Grading Criteria section. All elements of the course evaluation must be passed.
3. Individual and group assignments must be submitted within the time and manner prescribed by the course instructor.
4. The final grade obtained in the final exam of the CAIA Level 1 preparation course will account for 10% of the final grade for the course "Portfolio Management," which will be integrated into its Evaluation Activity "Assessment of individual or group work done by the students, some of which will be presented in class."

Evaluation criteria for second-year enrollment:

A student enrolled in the course for the second year must comply with the individual and group tasks set by the course instructor. The same evaluation criteria expressed in the Evaluation and Grading Criteria section will be maintained.

For circumstances not covered in this Course Guide, the Regulations of Advantere School of Management and the general regulations of Comillas will apply.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic Bibliography

Books & Articles:

- Donal R. Chambers, Mark J. P. Anson, Keith H. Black, Hossein B. Kazemi: CAIA Curriculum Level I, Volumes I, II, and III, Wiley (2023)
- CAIA Level I Study Guide: Learning Objectives and Keywords to Facilitate your Exam Study (2023)