# Corporate finance (options, futures and derivatives)

## Prof. Lorenzo Caprio

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The Corporate Finance (asset pricing and corporate financing) course covers options, forward contracts, futures contracts, and swaps. By the end of this course you will have a good knowledge of how these contracts work, how they are used, and how they are priced. The contents are a necessary part of the basic background of students interested in careers in Finance and Accounting.

By attending the course students:

1. acquire basic knowledge and understanding of basic concepts in the subject, that can be employed to trade in derivatives markets;
2. become able to apply this knowledge in order to define hedging strategies with derivatives;
3. become able to gather and interpret data useful for decision-making in employing derivatives;
4. become able to use the proper technical language in order to clearly communicate the knowledge acquired;
5. develop the learning skills in that are necessary in order to proceed in a more advanced understanding of the subject of derivatives instruments and markets.

***COURSE CONTENT***

Introduction.

Mechanics of futures markets

Hedging Strategies Using Futures.

Interest Rates.

Determination of Forward and Futures Prices.

Interest Rate Futures.

Swaps.

Securitization and the Crisis.

Properties of Options.

Binomial Trees.

The Black-Scholes-Merton Model.

Futures Options.

Interest Rate Derivatives: the Standard Market Model.

***READING LIST[[1]](#footnote-1)***

J. Hull, *Options, Futures and Other Derivatives.*

Plus further materials that will be made available by the teacher.

***TEACHING METHOD***

Face-to-face lectures.

In case the pandemics (Covid-19) emergency prevents the presence in class, the course shall be delivered in distance-learning mode, according to the directions that will be imparted in due time.

***ASSESSMENT METHOD AND CRITERIA***

*Attending* *students*

Midterm exam (50%) plus final exam (50%). Both exams are written.

*Non-attending* *students*

Final written exam (100%).

The exams will include (a) simulations of computations necessary to perform operations with derivatives instruments, and (b) tests of the understanding of the basic concepts of the subject. Evaluation will take into account the degree shown by the student in (a) aptitude to perform computations in order to reach the correct results and (b) ability to demonstrate understanding of both the theoretical and practical underpinnings ot the topics.

***NOTES AND PREREQUISITES***

*Prerequisites*: students are required to be familiar with the topics studied in introductory courses of Corporate finance (see for example the program of the course Corporate Finance of Prof. Gianluca Pallini, *Laurea Triennale* in Economics and Management, Facoltà di Economia, Università Cattolica).

Further information will be made available on the teacher's webpage *http://docenti.unicatt.it/ita/lorenzo\_caprio/.*

1. I testi indicati nella bibliografia sono acquistabili presso le librerie di Ateneo; è possibile acquistarli anche presso altri rivenditori. [↑](#footnote-ref-1)