# Financial markets and institutions

## Prof. Giuliano Iannotta

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

The aim of the course is to provide participants with a general understanding of financial securities, with a specific attention to the use of statistical tools. The topics covered are the following: i) characteristics of the main financial securities (stock, bonds and derivatives); ii) modern portfolio theory; iii) option pricing; vi) value at risk; v) credit risk management.

At the end of the course, students will be able to understand the mechanics of financial securities and the fundamentals of finance. Also, students will be able to identify the potential applications of statistical tools whithin financial markets.

***COURSE CONTENT***

– Overview of financial securities: bonds, stocks and derivatives.

– Modern portfolio theory: mean-variance approach, efficient frontier, CAPM.

– Options: properties of stock options, trading strategies, binomial trees, the Black-Scholes-Merton model, numerical procedures.

– Value at Risk (VaR): VaR methods (parametric, historical, Monte Carlo).

– Credit risk management: credit scoring models, capital market models, rating systems, portfolio models.

***READING LIST***

Cases and teaching notes provided by the lecturer

***TEACHING METHOD***

Lectures and guest speakers.

***ASSESSMENT METHOD AND CRITERIA***

A combination of: i) four assignments (overall 20%) and ii) a final written exam (80%). No mid-term exam.

***OFFICE HOURS***

Department: Segesta, via Necchi 5, Room C7; appointments by email