



**ASSET PRICING**  
**RITA LAURA D'ECCLISIA**

**Aim of the Course:**

This course teaches financial theory and the quantitative tools necessary for understanding how asset prices are determined, and how to invest in financial assets. The focus is on pricing, trading and the uses of specific asset classes (stocks, bonds, and derivatives). The course emphasizes the interaction between investment decisions, financial intermediaries, and the broader macroeconomic environment. The course is quantitative and challenging. It takes a rigorous and critical view of the process of investing. The aim is to provide the students with a lasting conceptual framework in which to view and analyze investment decisions. The course will relate the material to current financial news, the recent financial crisis and problems relevant to the practitioner.

**Topics**

- 1) Risk drivers: description, identification and measurement
- 2) Major securities and instruments
- 3) The fundamental theorem of Asset Pricing
- 4) Pricing at the horizon for plain vanilla instruments
- 5) Pricing exotics
- 6) The Capital asset Pricing Theorem and the Efficient Market Hypothesis
- 7) Portfolio selection and the efficient frontier with  $n$  securities
- 8) Risk measures: introductions and main axioms
- 9) Introduction to risk management

**Manuals**

J. C. Hull- "Futures, Options and other Derivatives" 10° edizione Pearson-Prentice Hall, 2017  
S. Shreve, Stochastic Calculus for Finance. Springer 2000  
J. Cochrane, Asset Pricing, Princeton. 2010  
Meucci A. Risk and Asset Allocation. Springer