UNIVERSITY OF LONDON

Course information 2020-21
FN2190 Asset Pricing and Financial Markets

General information

COURSE LEVEL: 5

CREDIT: 30

NOTIONAL STUDY TIME: 300 hours

Summary

This course is aimed at students who wish to understand how financial markets work and how securities are priced. Using present value techniques, it gives a theoretical treatment of bond and stock valuation including portfolio theory and a development of the Capital Asset Pricing Model. The concept of financial market efficiency is introduced, and evidence for efficiency evaluated. Finally, there is a presentation of derivative pricing using absence of arbitrage arguments.

Conditions

Prerequisite: If taken as part of a BSc degree, the following course(s) must be passed before this course may be attempted.

- EC1002 Introduction to economics **AND**
- **Either** MT105a Mathematics 1 **OR** MT105b Mathematics 2 **OR** MT1174 Calculus **OR** MT1186 Mathematical methods.

Exclusions: You may not register for this course in the same year as:

- AC3059 Financial management

Aims and objectives

The aims of this course are to:

- Provide students with a thorough grounding in asset pricing
- Develop students' skills in applying pricing methods to realistic scenarios.
- Provide a critical overview of the research on financial market efficiency.
- Allow students to develop an understanding of how securities markets operate.

Learning outcomes

At the end of the course and having completed the essential reading and activities students should be able to:

- Describe the important differences between stock, bond and derivative securities.
- Explain how to price assets using both present value and absence of arbitrage methods.

Please consult the current EMFSS Programme Regulations for further information on the availability of a course, where it can be placed on your programme's structure, and other important details

- Apply present value techniques to price stocks and bonds
- Employ mathematical tools to compute risk and return for portfolios of securities.
- Evaluate portfolio choice problems.
- Present, explain and apply the Capital Asset Pricing model for computing expected stock returns.
- Critically evaluate the evidence for informational efficiency of stock markets
- Price derivative securities using absence of arbitrage.

Essential reading

For full details, please refer to the reading list.

Brealey, R, Myers, S. and F. Allen Principles of Corporate Finance. (McGraw Hill, 2019) thirteenth edition [ISBN 978-1260565553]

Assessment

This course is assessed by a three-hour unseen written examination.

Syllabus

Present value calculations; discounting, compounding and the Net Present Value rule; quoted versus effective interest rates; annuities and perpetuities; Fisher separation.

Bond valuation: valuing coupon, and zero coupon, bonds via present value methods; the term structure of interest rates and bond valuation; yield to maturity; interest rate risk and Macaulay duration; spot and forward interest rates; modelling the term structure of interest rates.

Stock valuation: dividend discount models; the Gordon Growth model; earnings, payout ratios and stock prices; company valuation and the Present Value of Growth Opportunities.

Portfolio Theory and the Capital Asset Pricing model: investor preferences; the mathematics of security portfolios; investor portfolio selection; market equilibrium and the CAPM; empirical evaluation of the CAPM and competing models.

Efficient security markets: defining informational efficiency; why should markets be efficient?; problems with testing efficiency; evidence on the efficiency of stock markets; puzzles and anomalies.

Derivative pricing: the definition of a derivative contract; how to price derivatives using absence of arbitrage; forwards and futures contracts; pricing forwards on stocks, currencies and commodities; option contracts; practical uses of options contracts; bounds on option premia; option pricing via binomial models and Black-Scholes.