

# Course Outline

## Fixed Income Securities and Derivatives - EC5340

Course Leader: Steve Satchell

Autumn Term – 20 credits

Version 1.0

### AIMS

This course provides an overview of a very significant area of the contemporary financial world. The first part gives coverage of the important elements of the default free fixed income securities market and the second part covers the derivatives market. The course focuses on the analytical tools used in portfolio management and risk management. For bond portfolios these tools include yield curve construction, duration, convexity and formal term structure models. For derivatives, the emphasis will be on valuation, trading mechanisms and management of credit risk

### LEARNING OUTCOMES

By the end of this course, students should:

- be conversant with the types and features of fixed income securities available;
- demonstrate confidence in pricing bonds and applying the analytic tools;
- demonstrate familiarity with the family of basic derivatives available in the market;
- be able to critically evaluate the suitability of specific derivatives in hedging risk given a particular situation;
- demonstrate confidence in pricing derivatives and construct hedges.

### COURSE DELIVERY

One 2-hour lecture and one 1-hour seminar every week over a 10 week period.

### ASSESSMENT

Formative assessment:

- Weekly problem sets and classes provide feedback. There will be one collaborative take home assignment which will receive a grade and standardized feedback, although it will not have a formal weight. However it must be completed.

Summative assessment:

- One 2-hour exam taken in the summer term which contributes 75% of the final mark
- One 2,000 word take-home project contributing 25% of the final mark.

Coursework deadlines and dates of tests will be confirmed in the Departmental Student Handbook and on the Economics Department Website.

## **READING**

The main textbooks for the course are:

P. Veronesi, *Fixed Income Securities: Valuation, Risk, and Risk Management*, Wiley, 2010.

J. C. Hull, *Options, Futures, and Other Derivative Securities*, 7th Ed, Pearson, 2010.

## **WEEKLY TIMETABLE**

Overview of Fixed Income Securities

Bond Valuation

Interpreting Bond Yields

Term Structure of Interest Rates

Forward Contracts

Futures

Introduction to Options and Bond Options

Options Strategies and Valuation

Hedging with Options

Interest Rate Swaps