PG Course Outline

EC5340: Fixed Income Securities and Derivatives

2017/18

Spring: Fixed Securities and Derivatives (20 credits)
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Office hours: Wednesdays 10:00-11:00 and Thursdays 14:00 – 15:00)

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 that 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 hour mid-term test during term 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

1. Overview of Fixed Income Securities
2. Bond Valuation
3. Interpreting Bond Yields
4. Term Structure of Interest Rates
5. Forward Contracts
6. Futures
7. Introduction to Options and Bond Options
8. Risk Management
9. Options Strategies and Valuation
10. Credit and Credit Derivatives

CFA Study Help

Fixed Income Basic Concepts (section 15)

- Most of the Reading 52 Fixed Income Securities
- Reading 53 Fixed Income Markets
- Reading 54 Introduction to Fixed-Income Valuation
- Reading 55 Introduction to Asset-Backed Securities

Fixed Income Analysis of Risk (section 16)

- Reading 56 Understanding Fixed-income Risk and Return
- Most of the Reading 57 Fundamental of Credit Analysis

Derivatives (section 17)

- Reading 58 Derivatives Markets and Instruments
- Reading 59 Basic of Derivatives Pricing and Valuation
- Most of the Reading 60 Risk Management Applications of Option Strategies

Alternative Investments (section 18)

- Some elements of the Reading 61 Overview of Equity Security