UNIVERSITY OF LONDON | INTERNATIONAL PROGRAMMES

Course information 2013–14
FN3023 Investment management

This course is designed to introduce students to the investment environment in the role of a private or professional investor.

Prerequisite

If taken as part of a BSc degree courses which must be passed before this course can be attempted: FN1024 Principles of banking and finance.

Other rules

In addition, if taken as part of a BSc degree, FN3092 Corporate finance must be taken *with or before* FN3023 Investment management.

Aims and objectives

This course is designed to introduce students to the investment environment in the role of a private or professional investor. This course does not cover pricing, which is a major part of the Corporate Finance course. Instead, it emphasises the use of pricing theory in investment management. It aims to:

- provide an overview of institutional details linked to financial markets and the trading process
- provide an overview of historical trends and innovations in financial instruments and trading processes
- provide an overview of various financial instruments
- provide insight into the use of finance theory in investment management
- provide a guide to the measurement and analysis of risk of financial investments
- provide a guide to the measurement of performance of fund management
- address key issues in risk management.

Assessment

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

Learning outcomes

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

- ☑ list given types of financial instruments and explain how they work in detail
- ☑ contrast key characteristics of given financial instruments
- ☑ briefly recall important historical trends in the innovation of markets, trading and financial instruments
- ☑ name key facts related to the historical return and risk of bond and equity markets
- ☑ relate key facts of the managed fund industry
- ☑ define market microstructure and evaluate its importance to investors
- ☑ explain the fundamental drivers of diversification as an investment strategy for investors
- ☑ aptly define immunisation strategies and highlight their main applications in detail
- ☑ discuss measures of portfolio risk-adjusted performance in detail and critically analyse the key challenges in employing them
- ☑ competently identify established risk management techniques used by individual investors and corporations

Essential reading

For full details please refer to the reading list.

Bodie, Z., A. Kane and A.J. Marcus *Investments*. (Boston, Mass.; London: McGraw-Hill Irwin)

Students should consult the *Programme Regulations for degrees and diplomas in Economics, Management, Finance and the Social Sciences* that are reviewed annually. The Prerequisites, Exclusions, and Syllabus are subject to confirmation in the *Regulations.* Notice is also given in the *Regulations* of any courses which are being phased out and students are advised to check course availability.

Syllabus

This is a description of the material to be examined, as published in the *Regulations*. On registration, students will receive a detailed subject guide which provides a framework for covering the topics in the syllabus and directions to the essential reading.

The syllabus comprises the following topics:

Financial markets and instruments: money and bond markets; equity markets; derivative markets; managed funds; margin trading; regulation of markets.

History of financial markets: historical and recent financial innovation; historical equity and bond market returns; equity premium puzzle.

Fund management and investment: historical mutual fund performance; market efficiency and behavioural finance; return based trading strategies; hedge funds.

Market microstructure: types of markets; bid-ask bounce – the Roll model; Glosten-Milgrom model; Kyle model; discrete version of the Kyle model; limit order markets; statistical arbitrage (algorithmic trading, program trading); why market microstructure matters.

Diversification: expected portfolio return and variance; definition of risk premium; asset allocation – two assets: mean-variance preferences; optimal asset allocation with a risk free asset; CARA utility and normal returns; portfolio frontier; expected return relationships; estimation issues; diversification – the single index model; Treynor-Black model; factor models; statistics of asset allocation.

Portfolio immunisation: bond math; term structure; duration; numerical examples; immunisation of bond portfolios; convexity and immunisation; immunisation of equity portfolios.

Risk and performance management: types of risk; risk decomposition; hedge ratios; Value-at-Risk; Sharpe ratio; Treynor's ratio; more portfolio performance measures; Sharpe vs Treynor; portfolios with changing risk; market timing; non-linear payoffs; extreme risk.

Risk management: risk management for investors; risk management for corporations; risk management for banks; delta hedging; put option protection; put protection vs VaR; portfolio insurance with calls; hedging credit risk; hedging volatility; risk capital allocation.