



## Course information 2020-21

# FN3023 Investment management

### General information

**COURSE LEVEL:** 6

**CREDIT:** 30

**NOTIONAL STUDY TIME:** 300 hours

### Summary

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

### Conditions

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

- FN1024 Principles of banking and finance.

**Co-requisites:** Students can only take *FN3023 Investment management* at the same time as, or after, the following courses, not before:

- FN2190 Asset Pricing and financial markets **OR** FN3092 Corporate finance **OR** AC3059 Financial 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.

### Learning outcomes

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

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

- 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, 2017) eleventh edition [ISBN 978-1260083392] or

Fabozzi, F. J. and H. M. Markowitz (eds) The Theory and Practice of Investment Management. (Hoboken, NJ: John Wiley & Sons, 2011) second edition [ISBN 978-0470929902]

## Assessment

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

## Syllabus

**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.

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

**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.

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