



Course information 2023-24

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 attempted before you can register on this course:

- 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 and fifteen-minute closed-book 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