



## Course information 2017–18

### FN3092 Corporate finance

This course is aimed at students who are interested in understanding asset pricing and corporate finance. It provides a theoretical framework used to address issues in project appraisal and financing, the pricing of risk, securities valuation, market efficiency, capital structure, and mergers and acquisitions. It provides students with the tools required for further studies in financial intermediation and investments.

#### Prerequisite

If taken as part of a BSc degree, courses which must be passed before this course may be attempted:

*EC1002 Introduction to economics* and either  
*MT105a Mathematics 1* or  
*MT105b Mathematics 2* or  
*MT1174 Calculus*

#### Exclusion

This course may not be taken with *AC3059 Financial management*.

#### Aims and objectives

This course provides a theoretical framework used to address issues in project appraisal and financing, the pricing of risk, securities valuation, market efficiency, capital structure, and mergers and acquisitions. It provides students with the tools required for further studies in financial intermediation and investments.

#### Essential reading

For full details please refer to the reading list.  
Grinblatt, M. and S. Titman *Financial Markets and Corporate Strategy*. (Irwin McGraw-Hill)

#### Assessment

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

#### Learning outcomes

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

- ✓ explain how to value projects, and use the key capital budgeting techniques (NPV and IRR)
- ✓ understand the mathematics of portfolios and how risk affects the value of the asset in equilibrium under the fundamentals asset pricing paradigms (CAPM and APT)
- ✓ know how to use recent extensions of the CAPM, such as the Fama and French three factor model, to calculate expected returns on risky securities
- ✓ explain the characteristics of derivative assets (forwards, futures and options), and how to use the main pricing techniques (binomial methods in derivatives pricing and the Black–Scholes analysis)
- ✓ discuss the theoretical framework of informational efficiency in financial markets and evaluate the related empirical evidence
- ✓ understand the trade-off firms face between tax advantages of debt and various costs of debt
- ✓ understand and explain the capital structure theory, and how information asymmetries affect it
- ✓ understand and explain the relevance, facts and role of the dividend policy
- ✓ understand how corporate governance can contribute to firm value
- ✓ discuss why merger and acquisition activities exist, and calculate the related gains and losses.

## Syllabus

This is a description of the material to be examined. 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

**Project evaluation:** Hirschleifer analysis and Fisher separation; the NPV rule and IRR rules of investment appraisal; comparison of NPV and IRR; 'wrong' investment appraisal rules: payback and accounting rate of return.

**Risk and return – the CAPM and APT:** the mathematics of portfolios; mean-variance analysis; two-fund separation and the CAPM; Roll's critique of the CAPM; factor models; the arbitrage pricing theory; recent extensions of the factor framework.

**Derivative assets – characteristics and pricing:** definitions: forwards and futures; replication, arbitrage and pricing; a general approach to derivative pricing using binomial methods; options: characteristics and types; bounding and linking option prices; the Black–Scholes analysis.

**Efficient markets – theory and empirical evidence:** underpinning and definitions of market efficiency; weak-form tests: return predictability; the joint hypothesis problem; semi-strong form tests: the event study methodology and examples; strong form tests: tests for private information; long-horizon return predictability.

**Capital structure: the Modigliani–Miller theorem:** capital structure irrelevancy; taxation, bankruptcy costs and capital structure; weighted average cost of capital; Modigliani-Miller 2<sup>nd</sup> proposition; the Miller equilibrium; asymmetric information: 1) the under-investment problem, asymmetric information; 2) the risk-shifting problem, asymmetric information; 3) free cash-flow arguments; 4) the pecking order theory; 5) debt overhang.

**Dividend theory:** the Modigliani–Miller and dividend irrelevancy; Lintner's fact about dividend policy; dividends, taxes and clienteles; asymmetric information and signalling through dividend policy.

**Corporate governance:** separation of ownership and control; management incentives; management shareholdings and firm value; corporate governance.

**Mergers and acquisitions:** motivations for merger activity; calculating the gains and losses from merger/takeover; the free-rider problem and takeover activity.

Students should consult the appropriate *EMFSS Programme Regulations*, which are reviewed on an annual basis. The *Regulations* provide information on the availability of a course, where it can be placed on your programme's structure, and details of co-requisites and prerequisites.