

# IB266-15 Fundamentals of Finance

23/24

**Department**

Warwick Business School

**Level**

Undergraduate Level 2

**Module leader**

Rory Mullen

**Credit value**

15

**Module duration**

10 weeks

**Assessment**

Multiple

**Study location**

University of Warwick main campus, Coventry

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## Description

### Introductory description

This is an elective module for WBS and joint degree students only.

- Introduce students to the workings of the equity, bond and derivatives markets.
- Equip students with the skills and understanding to use quantitative tools for pricing stocks, bonds and derivatives.
- Develop in students a critical understanding of the trade-off between risk and return, and of techniques for exploiting that trade-off to maximum effect.
- Make students aware of key empirical tests of the Efficient Markets Hypothesis, and the implications of those empirical findings.
- Provide students with structured opportunities to practise using the key tools and techniques of Financial Markets theory.
- Prepare students for advanced undergraduate and postgraduate studies in Finance.

### Module aims

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## Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Investment under Certainty: Inter-temporal consumption, Fisher Separation.

Investor Preferences: Risk aversion, Expected utility.

Optimal Portfolio Selection: Diversification, Risk vs. Return, Capital Market Line.

Capital Asset Pricing Model: Beta, CAPM, Securities Market Line.

Bonds and Interest Rates: Spot rates, forward rates, bond pricing, term structure of interest rates, Pure Expectations and Liquidity Preference Hypotheses.

Financial Derivatives: Arbitrage-free futures pricing, binomial and Black-Scholes option pricing.

Market Efficiency: Efficient Markets Hypothesis, calendar anomalies, speculative bubbles, empirical tests.

## Learning outcomes

By the end of the module, students should be able to:

- Describe how equity and bond markets function, and their importance to both individual investors and institutions.
- Explain how these markets price stocks and bonds.
- Explain how risk can be diversified by forming portfolios of assets, and how to construct the optimum portfolio.
- Critically assess theoretical relationships between risk and return.
- Distinguish between spot and forward rates of interest. Formulate different hypotheses for the term structure of interest rates.
- List the different forms of market efficiency, and interpret the results of key tests of the Efficient Markets Hypothesis
- Describe how derivatives markets function.
- Explain how derivatives markets price securities.
- Explain key theoretical models and reflect critically on the limitations of those models and the assumptions that underpin them.
- Interpret empirical evidence
- Solve structured numerical problems and analyse case-study information.
- Communicate complex ideas effectively, both verbally and in writing

## Indicative reading list

Required text:

Hillier D, Ross SA, Westerfield RW, Jaffe J & Jordan BD Corporate Finance (3rd edition), McGraw-Hill 2016

Other texts:

Bodie Z, Kane A & Marcus AJ Investments (10th edition), McGraw-Hill 2014

Hull, J. C. (2015). Options, futures, and other derivatives (9th). Pearson Education

## Subject specific skills

Use discounted cash-flow techniques to value financial securities.

Write informed critiques of key issues in asset valuation.

Analyse short case-studies and construct arguments to support a particular solution.

Calculate spot and forward rates of interest from observed market prices of calibration bonds, and use these rates to price other bonds and identify arbitrage opportunities.

Calculate the forward price of a traded asset using the noarbitrage principle.

Price option contracts using the binomial model or the Black-Scholes model.

## Transferable skills

Solve structured numerical problems.

Write informed critiques of key issues in valuing risky assets.

Analyse case studies and construct arguments to support a particular solution.

Construct spreadsheets to:

(a) determine the risk-return characteristics of portfolios of risky assets.

(b) price stocks, bonds and options.

Calculate the forward price of a traded asset using the noarbitrage principle.

Price option contracts using the binomial model or BlackScholes model.

Calculate spot and forward rates of interest, and use these to price bonds

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## Study

### Study time

Type	Required
Lectures	10 sessions of 1 hour (13%)
Seminars	9 sessions of 1 hour (12%)
Online learning (independent)	10 sessions of 1 hour (13%)
Private study	49 hours (63%)
Total	78 hours

### Private study description

No private study requirements defined for this module.

## Costs

No further costs have been identified for this module.

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## Assessment

You do not need to pass all assessment components to pass the module.

### Assessment group D3

	<b>Weighting</b>	<b>Study time</b>
Participation	10%	7 hours
In-person Examination	90%	65 hours

- Answers provided on Question Paper. No Answerbook required
- Students may use a calculator

### Assessment group R2

	<b>Weighting</b>	<b>Study time</b>
In-person Examination - Resit	100%	

### Feedback on assessment

In-class and on my.wbs

[Past exam papers for IB266](#)

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## Availability

There is currently no information about the courses for which this module is core or optional.