## **COURSE SPECIFICATION DOCUMENT**

School: Business

**Programme:** BA (Hons) Finance and Investment

FHEQ Level: 6

**Course Title:** Quantitative Models in Finance

Course Code: FNN 6205

Course Leader: Ivan K. Cohen

Student Engagement Hours: 120 (standard 3- credit BA course)

Lectures: 30 Seminar / Tutorials: 15 Independent / Guided Learning: 75

Semester: Spring

**Credits:** 12 UK CATS credits

6 ECTS credits
3 US credits

## **Course Description**

This is a comprehensive course that focuses on model-building and quantitative methods used by professionals engaged in finance and investments. The course focuses on applying mathematical formulas utilizing Microsoft Excel across a broad range of financial and investment situations. The primary focus of the course is on corporate valuation and its utilisation.

Prerequisites: FNN 5205, FNN 6200, FNN 5210

## **Aims and Objectives:**

This Course is a comprehensive capstone course that focuses on model-building, primarily in MS Excel™, to investigate a range of financial case studies. The application of mathematical formulas across a range of financial and investment scenarios enables and encourages students to critically consider the quantitative methods employed by professionals enaged in finance and investment. The key focus is on developing a range of skills which will ultimately enable valuation of a listed company.

## **Programme Outcomes**

A2, A4, B1, B-B5, C1, C2, D1, D2, D3, D5

A detailed list of the programme outcomes are found in the Programme Specification.

This is located at the archive maintained by the Academic Registry and found at: <a href="http://www.richmond.ac.uk/programme-and-course-specifications/">http://www.richmond.ac.uk/programme-and-course-specifications/</a>

## **Learning Outcomes**

Upon completion of this course, a successful student should be able to

### **Knowledge and Understanding**

- 1. Develop a full understanding of the almost infinite nature of Excel™ as a modelling tool.
- 2. The ability to develop financial models, based on a range of forecasting techniques.
- 3. Critical understanding of the limitations of the modelling process
- 4. Understand how to present the findings of the model in a short financial report and via a sales pitch.
- 5. Understand how to measure and evaluate corporate performance.

## **Cognitive Skills**

- 1. Understanding the importance of alternative approaches for forecasting financial statements.
- 2. To compare and contrast alternative financial models (e.g. comparable analysis, discounted free cash flow analysis) for corporate valuation.
- 3. To understand the use of sensitivity and scenario analysis within financial modelling to assess performance and to identify possible results and related courses of action.
- 4. Critical approach to case study analysis using real world data.

#### **Professional and/or Practical Skills**

- 1. Quantitative and IT skills including the framing of data, its interpretation, extrapolation and presentation.
- 2. Integration of empirical data within a textual-based report.
- 3. To be able to identify and compare and contrast key financial modelling techniques in the context of a given set of circumstances.
- 4. The ability to make recommendations, both tactical and strategic, based on the findings of a model.
- 5. To be able to make a sales pitch for the corporate takeover of a public company.

## **Key Skills**

- 1. Effective communication skills via a range of media.
- 2. Ability to develop strong analytical and technical skills through listening, discussion and reflection.

#### **Indicative Content**

- 1. Introduction to using Excel<sup>™</sup> for financial modelling, including the acquisition of good habits.
- 2. Key techniques in financial forecasting, including regression, per cent of sales.
- 3. Cash flow modelling.
- 4. Company valuation: DCF and WACC.
- 5. Company valuation: non-DCF techniques.
- 6. Presenting model findings: reports and presentations.

#### Assessment:

This course conforms to the Standard University Assessment Norms approved at Academic Board (formerly Learning & Teaching Policy Committee) and located at: http://www.richmond.ac.uk/admitted-students/

## **Teaching Methodology:**

Semi-formal weekly presentation of material in a hands-on interactive PC Lab format. Supplemented with a set of readings and some audio-visual material. Full use of IT, particularly Excel, but also including social media and podcasts, is required and supported. The set of case studies, building to a corporate valuation, is of crucial impact as a learning tool.

### **Bibliography:**

- Craig W. Holden (2011), Excel Modeling in Corporate Finance, fourth edition. Prentice Hall
- Alastair Day (2007), Mastering Financial Modelling in Microsoft Excel: A Practitioner's Guide to Applied Corporate Finance, second edition. FT/Prentice Hall
- Mary Jackson and Mike Staunton (2001), Advanced Modelling in Finance using Excel and VBA. John Wiley
- Ivan K. Cohen (2005) Focus on Financial Management. Imperial College Press
- Kevin Boakes (2009), Reading and Understanding the Financial Times, 2nd edition.
   FT/Prentice Hall
- Robert Leach (2004) The Investor's Guide to Understanding Accounts: 10 crunch questions to ask before investing in a company. Harriman House
- Richard A Brealey, Stewart C. Myers and Franklin Allen (2005) *Principles of Corporate Finance*, international edition, McGraw-Hill Irwin
- Stephen A. Ross, Randolph W. Westerfield and Jeffrey Jaffe (2005) *Corporate Finance*, seventh edition. Irwin/McGraw-Hill
- Tim Koller and Marc Goedhart and David Wessels (2005) *Valuation: Measuring and Managing the Value of Companies,* fourth edition. McKinsey & Company Inc./John Wiley & Sons
- Guy Hart-Davis (2007) How To Do Everything with Microsoft Excel 2007. McGraw- Hill/Osborne
- Ed Robinson (2004) Excel VBA in Easy Steps. Computer Step
- John Buglear (2001) *Stats Means Business*. Butterworth Heinemann

# Journals

 $^{1}$  Or earlier editions if you use an earlier version of MS Excel<sup>TM</sup>.

## Economic and Financial Modelling

## Web Sites

The Economist

(www.economist.com) The

Financial Times (www.ft.com) The

Wall Street Journal (wsj.com)

Google Finance (<u>www.google.co.uk/finance?tab=we</u>)
CNBC (<u>www.cnbc.com</u>)
Global Financial Data (<u>www.globalfinancialdata.com/index.html</u>)

Social Science Information Gateway (<a href="www.sosig.ac.uk/economics">www.sosig.ac.uk/economics</a>)
WebEc: World Wide Web Resources in Economics (netec.mcc.ac.uk/WebEc.html)
The CIA Factbook (<a href="www.cia.gov/cia/publications/factbook/index.html">www.cia.gov/cia/publications/factbook/index.html</a>)

Please Note: The core and the reference texts will be reviewed at the time of designing th	le
semester syllabus	

## Change Log for this CSD:

Major or Minor	Nature of Change	Date Approved & Approval Body (School or AB)	Change Actioned by
Change		,	Academic
?			Registry
Minor	Updated Programme Outcomes	School 11.11.2016	