COURSE SPECIFICATION DOCUMENT

Academic School/Department: Richmond Business School

Programme: BA (Hons) Finance and Investment with Combined Studies

BSc Accounting and Finance

FHEQ Level: 6

Course Title: Quantitative Models in Finance

Course Code: FNN 6205

Course Leader: Ivan K. Cohen

Student Engagement Hours: 120
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 engaged 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
A1, A3, A4, A5
B1, B2, B3, B4,
B5 C1, C2
D1, D2

A detailed list of the programme outcomes is found in the Programme Specification. This is maintained by Registry and located at:
https://www.richmond.ac.uk/programme-and-course-specifications/

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™ 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 University Assessment Norms approved at Academic Board.

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

Alexander, Jack (2018) *Financial Planning & Analysis and Performance Management*. John Wiley & Sons

Benninga, Simon (2014) *Financial Modeling, fourth edition*. The MIT Press.

Brealey, Richard A., Stewart C. Myers and Franklin Allen (2019) *Principles of Corporate Finance*, thirteenth edition, McGraw-Hill Irwin

Cohen, Ivan K. (2005) *Focus on Financial Management*. Imperial College Press

Cohen, Ivan K. (2015) *Economics for Business: A Guide to Decision Making in a Complex Global Macroeconomy*. Kogan Page

Alastair Day (2012), *Mastering Financial Modelling in Microsoft Excel: A Practitioner's Guide to Applied Corporate Finance*, third edition. FT/Prentice Hall

Higgins, Robert C., Jennifer L. Koski and Todd Mitton (2018) *Analysis for Financial Management, twelfth edition.* McGraw-Hill

Holden, Craig W. (2014), *Excel Modeling in Corporate Finance*, fifth edition. Prentice

Hall Koller, Tim and Marc Goedhart and David Wessels (2015) *Valuation: Measuring and Managing*
   the Value of Companies, sixth edition. McKinsey & Company Inc./John Wiley & Sons

Rees, Michael (2017) *Principles of Financial Modelling: Model Design and Best Practices Using Excel and VBA. Second edition*. John Wiley & Sons

Ross, Stephen A., Randolph W. Westerfield and Jeffrey Jaffe (2018) *Corporate Finance*, twelfth edition. Irwin/McGraw-Hill

Journals

Economic and Financial Modelling (www.eefclondon.org/pubs/efm.html)

Web Sites
The Economist (www.economist.com)
The Financial Times (www.ft.com)

The Wall Street Journal (www.wsj.com)

Bank for International Settlements (BIS) (www.bis.org)
CIA World Factbook (www.cia.gov/library/publications/resources/the-world- factbook/index.html)
CNBC (www.cnbc.com)

FRED (Federal Reserve Economic Data)
(fred.stlouisfed.org) Global Financial Data
(www.globalfinancialdata.com)
Google Finance (www.google.co.uk/finance?tab=we)

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

Change Log for this CSD:

Major or Minor Change?	Nature of Change	Date Approved & Approval Body (School or LTPC)	Change Actioned by Academic Registry