

COMGE09 – Financial Modelling Using Excel

Master of Commerce Generic Elective Course: Financial Modelling Using Excel

Course Type/ Course Code	Course Title	Lectures	Tutorials	Practical	Credit	Pre-requisites
COMGE09	Financial Modelling Using Excel	2	0	2	4	NIL

Objective: To provide hands-on learning on financial modelling using spreadsheets for Business Analysis. Also, build dynamic financial models to assist the management to make necessary financial decision.

Learning Outcomes: On completion of this course, the student should be able to:

- Evaluate the basics of financial modelling using spreadsheets.
- Build financial models for business analysis, CVP analysis, forecasting and to make projected financial statements
- Analyze models for making capital budgeting decisions and evaluate capital structure for the business.
- Apply modelling tools and techniques for pricing bonds, securities, portfolios and options.
- Examine different automation techniques for financial models.

Contents:

Unit I (10 Hours)

Building a financial statement model, trend analysis, common-size analysis, Construction of pyramid of ratios, Financial analysis of company, developing a financial model for CVP Analysis – Break-Even-Point, Integration and linking of financial statements; Lag and lead indicators; Forecasting turnover, expenses, current and non-current assets, liabilities; Adjusting for seasonality, projected financial statements

Unit II (12 Hours)

Projected discounted cash flows, DCF valuation, Pay Back Period, NPV and IRR; Necessary Projections, Data Tables, Sensitivity Analysis and Scenario Analysis, Project cost simulation – Complete Model for capital budgeting decisions, Modeling Financial Leverage, capital structure and weighted average cost of capital

Unit III (15 Hours)

Modeling Price and Yield for different types of bonds; modeling dynamics of bonds, interest rate risk modeling and prediction of prices – duration and convexity, developing models to determine and analyze security risk and return; Portfolio Risk

and Return; and Efficient Frontier, Developing financial models for pricing Binomial Options and Black-Scholes model.

Unit IV

(8 Hours)

Building a dynamic Dashboard for assisting the management to make necessary financial decision, Introduction to VBA and Macros, Building user-defined Functions, Macros for Automation, Automation of the Financial Models

Practical Exercise: Students would be asked to analyze a real-world company's financial statement to forecast company's earnings. They can compare the performance of any two companies using ratios. Also, estimate intrinsic value of stocks of these companies by building financial model.

Suggested Readings:

- Beninga, S. and Mofkadi, T. (2022). *Financial Modeling*. MIT Press.
- Day, A.L. (2012). *Mastering Financial Modeling*. Pearson Education.
- Moschella, J. (2017). *Financial Modeling for Equity Research: A Step-by-Step Guide to Earnings Modeling*. Gutenberg Research Publishing.
- Proctor, K.S. (2004). *Building Financial Models with Microsoft Excel*. John Wiley & Sons.
- Sengupta, C. (2011). *Financial Modeling using Excel and VBA*. John Wiley & Sons.
- Tija, J.S. (2018). *Building Financial Models*. McGraw Hill.