

## COMSBC02 - Modelling for Financial Decisions

**Master of Commerce**  
**Skill Based Course: Modelling for Financial Decisions**

| Course Type/<br>Course Code | Course Title                      | Lectures | Tutorials | Practical | Credit | Pre-requisites |
|-----------------------------|-----------------------------------|----------|-----------|-----------|--------|----------------|
| COMSBC02                    | Modelling for Financial Decisions | 1        | 0         | 1         | 2      | 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:

- 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.

### Contents:

#### Unit I (8 hours)

Financial modeling and application, tools for modeling, steps of modeling, Structure and Challenges; 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 II (7 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.

**Practical Exercise:** Students would be asked to extract companies historical stock prices and build a portfolio. They can analyze the optimum portfolio they should hold using variance covariance analysis.

### 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.