

SPREAD SHEET MODELLING FOR BUSINESS

Course Code: 15FE1108

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Course Outcomes:

At the end of the course the student will be able to

CO 1: Understand the basics of spreadsheet modelling and excel formulas.

CO 2: Elucidate the spreadsheet functions for application in business perspective.

CO 3: Analyse the concepts of optimisation models in business decision analysis.

UNIT – I: Introduction to Spreadsheet Modelling (5 lectures)

Introduction - Characteristics and Benefits of Modelling - Spreadsheet Modelling Process - Quick Access Toolbar - Worksheets- The Auto Complete Formula Option - Entering Formulas by Pointing - Hierarchy of Mathematical Operations - Summation Icon - Editing or Correcting Formulas - IF Statements - Text Functions - Other Lookup & reference functions - Modeling uncertainty in Excel - Pivot Tables - Pivot Charts - Conditional Formatting - Do-It-Yourself Exercise.

UNIT – II: Spreadsheet Applications in Business (6 lectures)

Model Building Blocks - Model Terminology - Spreadsheet Model Building Process - Setup the Spreadsheet Model - Data Tables - Goal Seek - Linking Multiple Spreadsheets & Datasets with Access - Validating and Securing Spreadsheets - Financial statements - Ratio analysis - Net present value (NPV) - Capital budgeting using decision trees - Cash flow analysis - Cost-volume-profit analysis - Depreciation - Purchase order processing- Quality Management functions.

UNIT – III: Decision Analysis Models (5 lectures)

Introduction - Optimization and Linear Programming models - Modelling and Solving LP Problems in a Spreadsheet - Simulation Modelling -Linear Regression Modelling - Optimization Models - Project Management: PERT/CPM.

Text Books

S.No	Author	Title	Edition	Publisher	Year
1	Ragsdale Cliff	Spreadsheet Modelling & Decision Analysis: A Practical Introduction to Management Science	5 th	Stamford, Conn.: Thomson	2008
2	P.J. Jamrich, Dan Oha, Roy Ageloff, and Patrick Carey	New Perspective on Microsoft Excel 2007, Introductory.	5 th	Boston: Course Technology	2008

Reference Books

S.No	Author	Title	Edition	Publisher	Year
1	Gross, Debra, Frank Akaiwa, and Kathleen Nordquist	Succeeding in Business with Microsoft Office Excel 2007: A Problem-Solving Approach	1 st	Boston: Cours Technology	2008
2	John F. Barlowx	Excel Models for Business and Operations Management	2 nd	John Wiley & Sons Ltd	2005