FS 402: ADVANCED SPREADSHEETS TOOLS FOR FINANCIAL ANALYSIS

Course Objectives:

This course is designed to enable students understand this powerful tool to manipulate huge amounts of data, automate tasks and present complex information in a professional manner. This course will create more job opportunities for you and you will be a valuable candidate for your employers for your great analyzing skills.

Learning Outcomes:

After studying this course, you will be able to-

- Use advanced graphs very quickly.
- Automate your spreadsheets with macros and VBA
- Solve complex problems using superpower functions
- Develop PivotTables and Power Pivots.
- Create advance spreadsheets in various Industrial areas

Course Contents:

Unit I **(3 weeks)**

Excel Advanced Techniques:

Templates, Efficiency and Risk, Data Validation; Functions and Super Powers, Array Formulae, Tables, Advanced Range Names, What If Analysis, Problem Solving using Solver

References:

Chandan Sengupta, Financial Analysis and Modeling Using Excel and VBA [Part 1, Chapter 4-8]

Wayne Winston, MS Excel 2016, Data Analysis & Business Modelling [Chapter 29-35, 40, 88]

Unit II **(3 weeks)**

Excel Interactivity and Automation:

Index and Match, Offset, Dynamic Charting, Database functions, Text functions and Error functions: IfError, IsError, Aggregate, Circular Reference, Formula Auditing, Floating Point Errors, Form Controls, Visual Basic and Macros, Automating other applications from Excel

References:

Wayne Winston, MS Excel 2016, Data Analysis & Business Modelling [Chapter 4-6, 10-23, 89]

ADVANCED SPREADSHEETS TOOLS FOR FINANCIAL ANALYSIS

Unit III **(3weeks)**

Introduction to VBA:

Conditional Formatting, Charts that Inspire, Slicers, Sparklines, Graphics Tricks and Techniques, Worksheet Automation using Macros: Absolute and relative macros, Editing macros, Creating new functions, Use of spinner buttons and command buttons.

References:

Alexander Michael, Kusleika Dick , Excel 2016 Power Programming with VBA[Part I, Chapter 5

Wayne Winston, MS Excel 2016, Data Analysis & Business Modelling [Chapter 24, 27, 47-52]

Unit IV **(3 weeks)**

Data Analysis and Decision-Making:

Working with External Data, Advanced Uses of PivotTables, PowerPivot, Reporting with PowerPivot, Dashboard, Creating spreadsheet in the area of**:** Loan and Lease statement; Ratio Analysis; Payroll Accounting; Capital Budgeting, Portfolio Management, Breakeven analysis and Sensitivity analysis; Operations Management: Constraint optimization, Assignment Problems; Depreciation Accounting; Graphical representation of data; Frequency distribution and its statistical parameters; Correlation and Regression Analysis

References:

Alexander Michael, Kusleika Dick , Excel 2016 Power Programming with VBA[Part I, Chapter 5,7, Part II: Chapter 8-12]

Wayne Winston, MS Excel 2016, Data Analysis & Business Modelling [Chapter 53-59]

Textbooks:

1. Excel 2016 Power Programming with VBA, Michael Alexander, Dick Kusleika, Wiley
2. Financial Analysis and Modeling Using Excel and VBA, Chandan Sengupta, Second Edition, Wiley Student Edition
3. MS Excel 2016, Data Analysis & Business Modelling, Wayne Winston, PHI

ADVANCED SPREADSHEETS TOOLS FOR FINANCIAL ANALYSIS

Additional Readings:

1. Microsoft Excel 2016 - Data Analysis and Business Modeling Paperback – 1 May 2017 Wayne L. Winston, Microsoft Press
2. Microsoft Excel Practical Formulae: From Basic Data Analysis to Advanced Formulae Manipulation Diane Griffiths
3. Financial Modelling, 4th Edition, Simon Benninga, The MIT Press

References:

1. Microsoft Excel 2010 Bible, John Walkenbach, Wiley
2. Fundamentals of Database Systems, 7th Edition, Elmasari, Ranez and Shamakant B.Navathe- (2016), Pearson Education
3. Advance Excel 2016 in Depth Paperback – 15 Jul 2016 Bill Jele, BPB Publications
4. Advance Excel 2016 training guide, Ritu Arora BPB Publications

Teaching Learning Process:

Class room lecture, Practical Lab Session, Problem solving, Class presentation on the assigned topic by students individually or in group, Workshop

Assessment Method

1. Practical exam of 50% marks
2. End term University Exam of 50% marks

Key words: Templates, Data Validation, What If Analysis, Problem Solving using Solver, Dashboard, Visual Basic and Macros