

COURSE TITLE	ADVANCED SPREADSHEET APPLICATIONS
COURSE CODE	04BB0206
COURSE CREDITS	2

Course Outcomes: After completion of this course, student will be able to:

- 1 Understand & implement complex data operations using Spreadsheet
- 2 Protect files and worksheets properly
- 3 Tackle complex data analysis with ease
- 4 Create interactive KPI dashboard from scratch
- 5 Convert raw Excel data into information that can be used to create reports

Pre-requisite of course: Basic Understanding of Spreadsheet Applications

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	0	100	0	0	0	0

Contents : Unit	Topics	Contact Hours
1	IMPORTANT SPREADSHEET FUNCTIONS & UTILITIES Creating Table – Sort & Unsort Data – Filter Data – Text to Column – Data Validation – Conditional Formatting– Adding Hyperlinks, Text Functions (TRIM, PROPER, UPPER, LOWER, CONCAT, LEFT, RIGHT, TEXT JOIN), Statistical Functions (COUNT, COUNTA, COUNTBLANK, AVERAGE, MIN, MAX, COUNTIF, COUNTIFS, AVERAGEIF, AVERAGEIFS, MAXIFS, MINIFS) , Logical Functions (IF, NESTED IF, OR, AND, TRUE, FALSE), Math Functions (SUM, SUMIF, SUMIFS) Lookup Functions (VLOOKUP, HLOOKUP, INDEX, MATCH) – New Office 365 Functions (XLOOKUP, FILTER, SORT, UNIQUE)	11
2	DATA VISUALIZATION USING SPREADSHEET Chart Elements – Creating Dynamic Charts (Column Chart, Map Chart, Bar Chart, Pie Chart, Doughnut Chart, Stacked Chart, Line Chart, Histogram Chart, Tree Chart, Sunburst Chart, Funnel Chart, Scatter & Bubble Chart),, Inserting Pivot Table – Using Slicers & Timeline – Creating Pivot Charts – Building Catchy Dashboards	12
3	ADVANCE UTILITIES IN SPREADSHEET Solve problems with Goal Seek & Scenario Manger – Import Text, CSV & Web Data – Introduction to Power Query – Introduction to Macros & VBE – Recording Macro – Difference between Macros & VBA	7
Total Hours		30

Textbook :

- 1 Excel 2019 Bible, Michael Alexander, Wiley, 2019
- 2 Learn Excel 2016 Essential Skills with the Smart Method: Courseware Tutorial for Self-Instruction to Beginner and Intermediate Level 2016, Mike Smart, The Smart Method Ltd , 2016
- 3 Microsoft Excel 2019 Formulas and Functions, Paul McFedries, Pearson, 2019

References:

- 1 Microsoft Excel 2019 Data Analysis and Business Modeling (Business Skills), Microsoft Excel 2019 Data Analysis and Business Modeling (Business Skills), Microsoft Excel 2019 Data Analysis and Business Modeling (Business Skills), Microsoft Excel 2019 Data Analysis and Business Modeling (Business Skills), Wayne Winston, Microsoft Press, 2019

Suggested Theory Distribution:

The suggested theory distribution as per Bloom’s taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking
20.00	30.00	25.00	15.00	10.00	0.00

Instructional Method:

- 1 Theory