

Name of Faculty	:	Faculty of Engineering & Technology
Name of Program	:	Bachelor of Technology (B. Tech)
Course Code	:	1BAI02
Course Title	:	Advance Excel
Type of Course	:	Professional Core
Year of Introduction	:	2023-24

Prerequisite	:	-
Course Objective	:	This Excel course syllabus is designed for the intermediate Excel user who desires to learn more. Advanced skills. Learn the most advanced formulas, functions, etc... an Excel power user
Course Outcomes	:	At the end of this course, students will be able to:
	CO1	Interpret the fundamental Basic Excel and Basic Function. Express proficiency in the handling Formatting and Proofing and some Basic Mathematical functions.
	CO2	Determine the how to apply Date, Time and Text function in needy spread sheet. Also, identify the If Analysis, Logical Function, and Data Validation.
	CO3	Understanding about Lookup function
	CO4	Articulate the Pivote Table with the help of basic array lookup functions. Also, get knowledge about VBA Macro.

Teaching and Examination Scheme

Teaching Scheme (Contact Hours)			Credits	Examination Marks				
L	T	P		Theory Marks		Practical Marks		Total Marks
0	0	4	C	SEE	CIA	SEE	CIA	
0	0	4	2	0	0	50	25	75

Legends: **L**-Lecture; **T**-Tutorial/Teacher Guided Theory Practice; **P** - Practical, **C** - Credit, **SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Content

Unit No.	Topics	Teaching Hours	Weightage	Mapping with CO
1	Basics of Excel: An overview of the screen, navigation and basic spread sheet concepts, customizing the Ribbon, Changing Excel's Default Options Using Basics Functions:	02	10%	CO 1



	Using Functions – Sum, Average, Max, Min, Count, Counta, Absolute, Mixed and Relative Referencing			
2	Formatting and Proofing: Currency Format, Format Painter, Formatting Dates, Custom and Special Formats, Formatting Cells with Number formats, Font Formats, Alignment, Borders, etc.. Mathematical Function: SumIf, SumIfs CountIf, CountIfs AverageIf, AverageIfs, Nested IF, IFERROR Statement, AND, OR, NOT,	05	16%	CO 1
3	Text Functions: Upper, Lower, Proper, Left, Mid, Right, Trim, Len, Exact, Concatenate, Find, Substitute Date and Time Functions: Today, Now, Day, Month, Year, Date, Date if, DateAdd, EOMonth, Weekday	05	16%	CO 1 CO 2
4	Advance Excel What If Analysis: Goal Seek, Scenario Analysis, Data Tables (PMT Function), Solver Tool Logical Functions: If Function, How to Fix Errors – if error, Nested If, Complex if and or functions Data Validation: Number, Date & Time Validation, Text and List Validation, Custom validations based on formula for a cell, Dynamic Dropdown List Creation using Data Validation – Dependency List	02	15%	CO 2 CO 3
5	Lookup Functions: Vlookup / HLookup, Index and Match, Creating Smooth User Interface Using Lookup, Nested VLookup, Reverse Lookup using Choose Function, Worksheet linking using Indirect, Vlookup with Helper Column	05	10%	CO 3
6	Pivot Tables: Creating Simple Pivot Tables, Basic and Advanced Value Field Setting, Classic Pivot table, Choosing Field, Filtering PivotTables, Modifying PivotTable Data, Grouping based on numbers and Dates, Calculated Field & Calculated Items, Arrays Functions, What are the Array Formulas, Use of the Array Formulas?, Basic Examples of Arrays (Using ctrl+shift+enter), Array with if, len and mid functions formulas, Array with Lookup	05	15%	CO 4



	functions,Advanced Use of formulas with Array.			
7	VBA Macro Introduction to VBA: What Is VBA?, What Can You Do with VBA?,Recording a Macro,Procedure and functions in VBA Variables in VBA: What is Variables?,Using Non-Declared Variables,Variable Data Types,Using Const variables Message Box and Input box Functions: Customizing Msgboxes and Inputbox, Reading Cell Values into Messages, Various Button Groups in VBA If and select statements: Simple If Statements, The Elseif Statements, Defining select case statements	06	18%	CO 4

Suggested Distribution of Theory Marks Using Bloom's Taxonomy						
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
Weightage	20	30	30	20	0	0

NOTE: This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Suggested List of Experiments/Tutorials

Sr. No.	Name of Experiment/Tutorial	Teaching Hours
1	Write a program which shows the Excel's Default option	02
2	Create a worksheet which shows the basic functions like average, sum, etc....	02
3	Create an Excel sheet for showing functioning and proofing	02
4	Create an Excel sheet which shows Time and Date function	02
5	Create an Excel sheet which shows Mathematical function	02
6	Create an Excel sheet that shows Logical function and Data validation	04
7	Create an Excel sheet which shows Use of the Array Formulas?	02
8	Create an Excel sheet which shows Pivote table's Classic Pivot table, Choosing Field, Filtering PivotTables, Modifying PivotTable Data, Grouping based on numbers and Dates, Calculated Field & Calculated Items	08
9	Create a Excel sheet which shows variable in VBA	02
10	Create a Excel sheet which shows Message Box and Input Box Function in VBA	04

Major Equipment/ Instruments and Software Required

Sr. No.	Name of Major Equipment/ Instruments and Software
1	Microsoft office suit
2	Microsoft Excel

Suggested Learning Websites

Sr. No.	Name of Website
1	www.lectera.com
2	www.udemy.com
3	Chandoo.org.VBA Classes

Reference Books

Sr. No.	Name of Reference Books
1	A to Z of MS EXCEL by Rinkoo Jainn
2	Bible by Michael Alexander, Richard Kusleika
3	Beginning Excel, by Barbara Lave, Julie Romey



SIGMA
UNIVERSITY
—VADODARA—

Faculty of Engineering & Technology
Bachelor of Technology (B. Tech)
(W. E. F.: 2023-24)
Document ID: SUTEFCAB-01
