Semester: **I**
Course Title: **Introduction to MS-Excel and Advance Methods**
Credit: **4**
Duration: **40 hrs.**

Course Outcomes	Description	Cognition	Hours	Evaluation Tools
CO1	**Apply** basic excel fundamentals and commands to manage worksheet effectively.	L3: Apply	7.25	Internal Assignment, Test
CO2	**Solve** numerical, text, date, and lookup formula.	L3: Apply	13.0	Internal- Assignment, Test, Practical End Term- Test
CO3	**Analyse** the use of different charts.	L4: Analyse	11.0	Internal- Assignment, Test, Practical End Term- Test
CO4	**Analyse** applications on Google drive, Google forms and effective scheduling using Google Calendar.	L4: Analyse	2.5	Internal- Practical, Test End Term- Test
CO5	**Analyse** different features and formulas on Google Spreadsheet.	L4: Analyse	6.25	Internal- Practical, Test End Term- Test

Mapping CO with PO

Scale 1- low alignment, 2- Moderate alignment, 3 – high alignment, - – No alignment

COs / POs	PO 1	PO 2	PO 3	PO 4	PO 5
CO1	2	3	1	1	1
CO2	2	3	1	1	1
CO3	2	3	1	1	1
CO4	2	3	2	-	2
CO5	2	3	2	1	2
CO	**2.0**	**3.0**	1.4	1.0	**1.4**

Session Plan

Sr. No	Hrs	Units	COs	Cognition	Evaluation Tools
1	**1.5**	**Microsoft Excel Fundamentals**:			
(i)	1.5	☐ Launching Excel ☐ Introduction to the Excel Interface ☐ Customizing the Excel Quick Access Toolbar ☐ Understanding the Structure of an Excel Workbook ☐ Saving an Excel Document ☐ Opening an Existing Excel Document	CO1: Apply basic excel fundamentals and commands to manage worksheet effectively.	L3: Apply	Internal-Assignment, Test, Practical End Term-Test
2	**3.0**	**Microsoft Excel Fundamentals**:			
(i)	3.0	☐ Launching Excel ☐ Introduction to the Excel Interface ☐ Customizing the Excel Quick Access Toolbar ☐ Understanding the Structure of an Excel Workbook ☐ Saving an Excel Document ☐ Opening an Existing Excel Document	CO1: Apply basic excel fundamentals and commands to manage worksheet effectively.	L3: Apply	Internal-Assignment, Test, Practical End Term-Test
3	**3.0**	**Entering and Editing Text and Formulas**			

(i)	3.0	☐ Entering Text to Create Spreadsheet Titles ☐ Working with Numeric Data in Excel ☐ Entering Date Values in Excel ☐ Working with Cell References ☐ Data Linking within workbooks and worksheets. ☐ Creating Basic Formulas in Excel ☐ Relative Versus Absolute Cell References in Formulas ☐ Consolidate multiple sheets into single sheets.	CO1: Apply basic excel fundamentals and commands to manage worksheet effectively.	L3: Apply	<u>Internal-</u>Assignment, Test, Practical <u>End Term-</u>Test
4	**2.0**	**Working with Basic Excel Functions**			
(i)	2.0	☐ The structure of an Excel Function ☐ Working with the SUM() Function ☐ Working with the MIN() and MAX() Functions ☐ Working with the AVERAGE() Function ☐ Working with the COUNT() Function ☐ Using the AutoSum Command ☐ Using the AutoFill Command to Copy Formulas	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	<u>Internal-</u>Assignment, Test, Practical <u>End Term-</u>Test,
5	**2.5**	**Study of Basic and Advance filter:**			
(i)	2.5	☐ Introduction to Basic filter ☐ Advance filter ☐ Filter function	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	<u>Internal-</u>Assignment, Test, Practical <u>End Term-</u>Test
6	**2.0**	**Paste Special Functions and Protection of cells, workbook, and worksheets:**			
(i)	2.0	☐ Paste Special Transpose ☐ Paste Special Values ☐ Paste Special Formula ☐ Paste Special Link ☐ Protection of Cells ☐ Protection of Workbook and Worksheets	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	<u>Internal-</u>Assignment, Test, Practical <u>End Term-</u>Test
7	**2.0**	**Working with Excel's Lookup Functions**			
(i)	2.0	☐ Using Excel's VLOOKUP() Function ☐ Using Excel's HLOOKUP() Function	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	<u>Internal-</u>Assignment, Test, Practical <u>End Term-</u>Test

8	2.5	**Transpose and Date Functions**			
(i)	1.0	☐ TRANSPOSE using Paste special ☐ Simple Transpose	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	Internal-Assignment, Test, Practical End Term- Test
(ii)	1.5	☐ DAYS ☐ WEEKDAY ☐ EOMONTH ☐ EDATE ☐ WEEKNUM, ☐ EMONTH, ☐ YEARFRAC	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	Internal-Assignment, Test, Practical End Term- Test
9	2.5	**Text Based Functions and working with Match and Index:**			
(i)	1.5	☐ Using Excel's LEFT(), RIGHT() and MID() Functions ☐ Using Excel's LEN() Function ☐ Using Excel's SUBSTITUTE(),REPLACE(),TRIM() Function ☐ Using Excel's CONCATENATE() Function ☐ Using Excel's Text functions TEXT SPLIT() TEXT BEFORE() HSTACK() VSTACK() TAKE() DROP() CHOOSECOLS() CHOOSEROWS()	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	Internal-Assignment, Test, Practical End Term- Test
(ii)	1.0	☐ Introduction to Match () ☐ Introduction to Index () ☐ Combination of Match & Index()	CO2: Solve numerical, text, date, and lookup formula.	L3: Apply	Internal-Assignment, Test, Practical End Term- Test,
10	4.0	**Analyse Basic Charts in Excel:**			
(i)	4.0	☐ Creating an Excel Column Chart ☐ Working with the Excel Chart Ribbon ☐ Adding and Modifying Data on an Excel Chart ☐ Formatting an Excel Chart ☐ Moving a Chart to another Worksheet	CO3: Analyse the use of different charts.	L4: Analyse	Internal-Practical, Test End Term- Test

11	7.0	**Analyse different chart and its uses:**			
(i)	3.5	☐ Candle Chart ☐ Gantt Chart	CO3: Analyse the use of different charts.	L4: Analyse	<u>Internal-</u>Practical, Test <u>End Term-</u>Test
(ii)	3.5	☐ Forecast and Trend Chart ☐ Histogram Chart	CO3: Analyse the use of different charts.	L4: Analyse	<u>Internal-</u>Practical, Test <u>End Term-</u>Test
12	2.5	**Working with Google Drive, Google Calendar and Google forms**			
(i)	1.0	Google Drive: ☐ Uploading and downloading files and folders in Google Drive. ☐ Exploring Shared drive ☐ Permission Settings	CO4: Analyse applications on Google drive, Google forms and effective scheduling using Google Calendar.	L4: Analyse	<u>Internal-</u>Test
(ii)	2.5	Google forms and Google Calendar: ☐ Designing quizzes using google forms and downloading their responses in Google Sheets. ☐ Scheduling using Google Calendars and its synchronization using mobile phone	CO4: Analyse applications on Google drive, Google forms and effective scheduling using Google Calendar.	L4: Analyse	<u>Internal-</u>Test
Working with Google Spreadsheets					
13	1.0	**Introduction to Functions and Conditional Functions**			
(i)	1.0	Get familiar with Conditional Formatting column/row wise and filter functions with filter views.	CO5: Analyse different features and formulas on Google Spreadsheet.	L4: Analyse	<u>Internal-</u>Test
14	2.0	**Nested Conditional Functions**			
(i)	2.0	☐ NESTED IF() ☐ NESTED IF() with AND() NESTED IF() with OR()	CO5: Analyse different features and formulas on Google	L4: Analyse	<u>Internal-</u>Test

			Spreadsheet.		
15	**2.0**	**Working with TEXT functions**			
(i)	2.0	☐ LEFT() ☐ RIGHT() ☐ LEN() ☐ TRIM() ☐ FIND() & SEARCH()	CO5: Analyse different features and formulas on Google Spreadsheet.	L4: Analyse	<u>Internal-</u> Test
16	**1.5**	**Working in a Collaborative environment and protection of worksheet and named ranges**			
(i)	1.5	☐ Learning different sharing techniques ☐ Getting familiar with owners' rights ☐ Protection of sheets in a collaborative environment Protection of named ranges in spreadsheet	CO5: Analyse different features and formulas on Google Spreadsheet.	L4: Analyse	<u>Internal-</u> Test
17	**1.5**	**Stock Picking and Real Time Translators with GOOGLE FINANCE and GOOGLE TRANSLATE**			
(i)	1.5	☐ Get stock information instantly with GOOGLE FINANCE() ☐ Become a polyglot with GOOGLE TRANSLATE()	CO5: Analyse different features and formulas on Google Spreadsheet.	L4: Analyse	<u>Internal-</u> Test

<u>Pedagogy</u>
1. Lecture
2. Assignments
3. Presentation

<u>Evaluation</u>
Internal   60%
External   40%
Total   100%

<u>Parameters of Internal Assessment:</u>
1. Attendance
2. Class Participation
3. Class Test
4. Project Presentation

Assessment Mapping:

Parameter	Marks	CO 1	CO 2	CO 3	CO 4	CO 5
Internal	40	10%	25%	15%	25%	25%
Attendance	10	20%	20%	20%	20%	20%
Class Participation	10	20%	20%	20%	20%	20%
Class Test	10	15%	15%	30%	20%	10%
Projects	10	5%	70%	10%	10%	10%
End Term	**60**	**10%**	**70%**	**10%**	**5%**	**5%**

Reference Book:

Book Title	Name of Author	Publisher	Edition No.	Year
Excel 2013 Power Programming with VBA	John Walkenbach	Wiley & Sons, Incorporated, John	-	2007
Excel 2016 Power Programming with VBA	Michael Alexander Dick,Kusleika	Wiley	1st	2016

E-Books:

Book Title	Name of Author	Publisher	Link	Year
Microsoft Word 2013™ An Essential Guide (Level 1)	-	reading.ac.uk	http://www.reading.ac.uk/web/files/its/WordEssen13.pdf	2014
Corporate Finance Institute-Excel	-	Corporatefinanceinstitute.com	https://corporatefinanceinstitute.com/resources/ebooks/excel-book-pdf/	2013