

SKILL ENHANCEMENT COURSES (SEC)

SEC: MS 305: ADVANCED SPREADSHEET TOOLS FOR BUSINESS ANALYSIS

Course Objectives:

This course is designed to enable students develop IT skills that are a pre-requisite today's work environment. With greater human-computer interaction in each sphere of work, this course will equip them with basic computing skills that will enhance their employability in general.

Learning Outcomes:

After studying this course, you will be able to-

1. Make meaningful representations of data in the form of charts and pivot tables.
2. Draw analysis on data using spreadsheets and use interpretation to make decisions.
3. Generate word documents with appropriate formatting, layout, proofing.
4. Manage data for generating queries, forms and reports in a database.

Course Content:

Unit I

(3 Weeks)

Spreadsheets

Concept of worksheets and workbooks, creating, opening, closing and saving workbooks, moving, copying, inserting, deleting and renaming worksheets, working with multiple worksheets and multiple workbooks, controlling worksheet views, naming cells using name box, name create and name define; Exchanging data using clipboard, object linking and embedding; Printing and Protecting worksheets: Adjusting margins, creating headers and footers, setting page breaks, changing orientation, creating portable documents and printing data and formulae; Implementing file level security and protecting data within the worksheet; Understanding absolute, relative and mixed referencing in formulas, referencing cells in other worksheets and workbooks, correcting common formula errors, working with inbuilt function categories like mathematical, statistical, text, lookup, information, logical, database, date and time and basic financial functions. Conditional formatting. Introduction to recording and execution of macros. Uses of pivot tables.

References:

Walter Holland, Microsoft Office 2013 Digital Classroom [Excel Lesson 1-8]

Wayne L. Winston, Data Analysis and Business Modeling [Chapter 3-13, 24]

ADVANCED SPREADSHEET TOOLS FOR BUSINESS ANALYSIS

Unit II

(3 Weeks)

Data Analysis in Spreadsheets:

Consolidating worksheets and workbooks using formulae and data consolidate command; Performing what-if analysis: Types of what if analysis (manual, data tables, scenario manager), what-if analysis in reverse (goal-seek, solver), Choosing a chart type, understanding data points and data series, editing and formatting chart elements, and creating sparkline graphics, Analysing data using pivot tables: Creating, formatting and modifying a pivot table, sorting, filtering and grouping items, creating calculated field and calculated item, creating pivot table charts, producing a report with pivot tables. Use of solver to solve different business problems.

References:

Wayne L. Winston, Data Analysis and Business Modeling [Chapter 18, 29-36, 41-48, 52]

Microsoft Excel 2016 Bible, John Walkenbach [Part V, Chapter 32-36]

Unit III

(3 Weeks)

Word-processing

Introduction: Creating and saving your document, displaying different views, working with styles and character formatting, working with paragraph formatting techniques using indents, tabs, alignment, spacing, bullets and numbering and creating borders; Page setup and sections: Setting page margins, orientation, headers and footers, end notes and foot notes, creating section breaks and page borders; Working with tables: Creating tables, modifying table layout and design, sorting, inserting graphics in a table, table math, converting text to table and vice versa; Create newspaper columns, indexes and table of contents, Spell check your document using inbuilt and custom dictionaries, checking grammar and style , using thesaurus and finding and replacing text; Create bookmarks, captions and cross referencing, adding hyperlinks, adding sources and compiling and bibliography; Mail merge: Creating and editing your main document and data source, sorting and filtering merged documents and using merge instructions like ask, fill-in and if-then-else; Linking and embedding to keep things together.

References:

Walter Holland, Microsoft Office 2013 Digital Classroom [Word Lesson 1-7]

ADVANCED SPREADSHEET TOOLS FOR BUSINESS ANALYSIS

Unit IV

(3 Weeks)

Databases

Introduction to Database Development: Database Terminology, Objects, Creating Tables, working with fields, understanding Data types , Changing table design, Assigning Field Properties, Setting Primary Keys, using field validation and record validation rules, Indexing, working with multiple tables, Relationships & Integrity Rules, Join Properties, Record manipulation, Sorting & Filtering; Select data with queries: Creating Query by design & by wizard (Select, Make Table, Append, Delete, Cross Tab, Update, Parameterized Query, Find Duplicate and Find Unmatched), Creating multi table queries, creating & working with table joins. Using operators & expressions: Creating simple & advance criteria; Working with forms: Creating Basic forms, working with bound, unbound and calculated controls, understanding property sheet, Working with Data on Forms: Changing Layout, creating Sub Forms, creating list box, combo box and option groups; Working with Reports: Creating Basic Reports, Creating Header & Footer, Placing Controls on reports, sorting & grouping, Creating Sub reports.

References:

Michael R. Groh, Access 2010 Bible [Part 1: Chapter 1-9]

Text Books:

1. Microsoft Excel 2016 Data Analysis and Business Modeling, Wayne L. Winston, PHI
2. Microsoft Excel 2016 Bible, John Walkenbach, Wiley
3. Microsoft Office 2013 Digital Classroom by Walter Holland and the AGI Creative Team, Wiley
4. Access 2010 Bible, Michael R. Groh, Wiley India Edition

Additional Readings:

1. Excel 2013 Charts and Graphs, Jelen, Pearson
2. Excel 2013 Pivot Table Data Crunching, Jelen, Pearson
3. Microsoft Office 2016 Step by Step, by Joan Lambert, Curtis Frye
4. Advanced Database Projects in Access 2007: Suitable for Users of Office 2010, Ian Rendell and Julian Mott

ADVANCED SPREADSHEET TOOLS FOR BUSINESS ANALYSIS

Teaching Learning Process:

This course will be taught using a mix of the following tools:

1. Relevant Case studies
2. Hands on practice on Excel.
3. Relevant and important articles from academic linked journals in the domain of Management such as Harvard Business Review,

Assessment Method:

- Internal Assessment : 25 marks
- Practical : 25 marks
- Written Theory Exam : 50 marks

Keywords:

Spreadsheets,pivot tables,Database and solver