

SEC-51P-102 – Introduction to Office Productivity Software

Semester	Code of the Course	Title of the Course/Paper		NHEQF Level	Credits
I/II	SEC-51P-102	Introduction to Office Productivity Software		5	2
Level of Course	Type of the Course	Credit Distribution		Offered to NC Student	Delivery Type of the Course
		Theory	Practical		
Introductory	Skill Enhancement	-	2	2	60 Hours Practical
Prerequisites	XII Pass				
Objectives of the Course:	Objectives of the Course – The objective of this course is to provide participants with a comprehensive understanding of the fundamental features and functionalities of word processing tools, electronic spreadsheets, and presentation software. Through hands-on practice and theoretical knowledge, participants will develop the skills necessary to efficiently create, format, and manage documents, spreadsheets, and presentations. By the end of the course, participants will be able to use these tools effectively to enhance their productivity in various professional and personal scenarios.				

Examination Scheme-

Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (CA + EoSE)	Minimum Marks (CA + EoSE)
Practical	SEC-51P-102- Introduction to Office Productivity Software	1 Hrs-CA 1 Hrs-EoSE	10 Marks-CA 40 Marks-EoSE	4 Marks-CA 16 Marks-EoSE

The Practical examination Scheme for **Introduction to Office Productivity Software** should be as follows –

- Three Practical Exercises of 10 Marks each from each Unit – 30 Marks
- Viva-Voce – 5 Marks
- Record – 5 Marks

The duration of the Practical Examination will be 1 Hour.

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Detailed Syllabus

SEC-51P-102 – Introduction to Office Productivity Software

Unit –I

Word Processing Tools:

Text Basics, Text Formatting and saving files, Objects- Shapes, Clipart and Picture, Word Art, Smart Art, Page Number, Date & Time, Inserting Text boxes Chart, Header & Footers, Bullets and numbered lists, Tables, Styles and Content, Merging Documents Sharing and Maintaining Document. Proofing the Printing

(20Hours Practical)

Unit -II

Electronic Spreadsheet:

Introduction to spreadsheet, formatting Excel workbook, Perform Calculations with Functions, Sort and Filter Data, Create Charts, Pivot Tables and Pivot Charts, Protecting and Sharing the workbook, Use Macros to Automate Tasks, Proofing and Printing

(20Hours Practical)

Unit -III

POWERPOINT:

Setting Up PowerPoint Environment, creating slides and applying themes, working with bullets and numbering, Working with Objects, Hyperlinks and Action Buttons, Working With Movies and Sounds, Using SmartArt and Tables., Animation and Slide Transition, Using slide Master, Slide show option, Proofing and Printing

(20Hours Practical)

Suggested Books and References –

1. Microsoft Office for Beginners by M.L. Humphrey
2. Microsoft Word 2016 Step by Step by Joan Lambert and Curtis Frye
3. Excel 2016 Bible by John Walkenbach
4. PowerPoint 2016 For Dummies by Doug Lowe
5. Microsoft Office 2016 In Practice by Randy Nordell

Course Learning Outcomes:

By the end of the course, students should be able to:

1. Word Processing:

- Format documents using advanced text styling and alignment.
- Manipulate text with cut, copy, paste, and find & replace functions.
- Enhance document layout with headers, footers, and page numbering.
- Create visually appealing content using tables, objects, and styles.
- Efficiently merge documents and manage templates for streamlined work.

2. Electronic Spreadsheet:

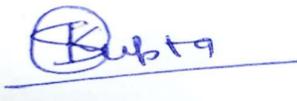


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- Apply formatting and calculations using a variety of functions.
- Organize and analyze data through sorting, filtering, and charts.
- Automate tasks with macros and protect workbooks with passwords.
- Create dynamic pivot tables for data visualization and analysis.

3. PowerPoint:

- Design captivating presentations with themes, formatting, and multimedia.
- Incorporate interactive elements like hyperlinks and action buttons.
- Apply animations and transitions for engaging slide shows.
- Customize master slides for consistent and polished presentations.




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SEC-51P-103 – Data Analysis Using Excel

Semester	Code of the Course	Title of the Course/Paper		NHEQF Level	Credits
I/II	SEC-103	Data Analysis Using Excel		5	2
Level of Course	Type of the Course	Credit Distribution		Offered to NC Student	Delivery Type of the Course
		Theory	Practical		
Introductory	Skill Enhancement	-	2	No	60 Hours Practical
Prerequisites	XII Pass				
Objectives of the Course:	Objectives of the Course – <ol style="list-style-type: none"> 1. To Understand Data Analysis Fundamentals and Excel Basics: 2. Understanding the process of cleaning and transforming data. 3. Understanding Visualization of data. 4. Understanding Inbuilt functions of MS Excel and User defined functions 5. To understand Statistical Tools for Data analysis. 6. Apply Data Analysis to Real-world Scenarios. 				

Examination Scheme-

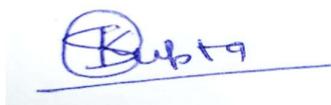
Regular Students –

Type	Paper code and Nomenclature	Duration of Examination	Maximum Marks (CA + EoSE)	Minimum Marks (CA + EoSE)
Practical	SEC-51P-103-Data Analysis Using Excel	1 Hrs-CA 1 Hrs-EoSE	10 Marks-CA 40 Marks-EoSE	4 Marks-CA 16 Marks-EoSE

The Practical examination Scheme for **Data Analysis Using Excel** should be as follows –

- Three Practical Exercises of 10 Marks each from each Unit – 30 Marks
- Viva-Voce – 5 Marks
- Record – 5 Marks

The duration of the Practical Examination will be 1 Hour.




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Detailed Syllabus

SEC-51P-103 – Data Analysis Using Excel

Unit-I

Introduction: Introduction to data analysis concepts. Excel's interface and its features. Data entry, formatting, and basic calculations on the worksheet. Introduction to Simple Excel functions (SUM, AVERAGE, COUNT, date formats etc.). Various forms of storing an Excel file. Managing worksheets and workbooks. Storing Workbooks.

(16Hours Practical)

Unit-II

Data Cleaning and Transformation Importing data from various sources (CSV, text, databases). Data cleaning techniques (removing duplicates, handling missing values). Text-to-columns and data splitting. Data validation and conditional formatting.

(12Hours Practical)

Unit-III

Visualization: Creating basic charts (bar, line, pie). Customizing charts (titles, labels, legends). Using advanced chart types (scatter plots, histograms). Adding trend lines and data labels. Creating dynamic charts with slicers. Probability Distributions and their graphical representation. Pivot Tables: Creating, modifying, and summarizing data. Pivot Charts: Visualizing Pivot Table data. Introduction to What-If Analysis

(16Hours Practical)

Unit-IV

Data Analysis Tools: Introduction to basic statistical functions (STDEV, MIN, MAX). Using Excel's built-in analysis tools (Correlation, Regression). Introduction to Power Query for data transformation. User Defined Formulae, Data Analysis Tool-Pack, Preparation of Correlation Matrix, Fitting multiple Regression equation. Generating Random Numbers, Statistical Inference tools: Application of Z-Test, t-test, F-tests, ANOVA- One way and Two-way.

(16Hours Practical)

Suggested Books and References –

1. Paul McFedries (2022): Excel Data Analysis For Dummies, 5th Edition, John Wiley & Sons, ISBN: 978-1-119-84442-6
2. K. Berk (Author), Partrick Carey (2003), Data Analysis with Microsoft Excel, Duxbury Press; New edition (25 March 2003), ISBN-13 : 978-0534407148



3. Robert de Levie(2003), Advanced Excel for Scientific Data Analysis, OUP USA (9 October 2003), ISBN-13 : 978-0195170894
4. Manisha Nigam(2019): Data Analysis with Excel, BPB Publications; First Edition (5 September 2019),ISBN-13 : 978-9388176675
5. L. Winston Wayne(2019): MICROSOFT EXCEL 2019: DATA ANALYSIS & BUSINESS MODEL, 6thEdn., PHI Learning Pvt. Ltd. (11 October 2019),ISBN-13 : 978-9389347180
6. Wayne Winston(2017), Microsoft Excel Data Analysis and Business Modeling, Microsoft Press; 5th edition,ISBN-13 : 978-1509304219

Suggested E-resources:

Online Lecture Notes and Course Materials:

1. E-PG Pathshala:
<https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=fBYckQKJvP3a/8Vd3L08tQ==>
2. **Lecture Notes:**
 1. <https://www.gacbe.ac.in/pdf/ematerial/18BCS5EL-U5.pdf>
 2. <https://drive.google.com/file/d/11yrw1jBoI2RRaBIj4Vy3XpZQhaM8D1dz/view?pli=1>
 3. <https://www.guru99.com/excel-tutorials.html>
 4. <https://gacbe.ac.in/pdf/ematerial/18MEC24C-U4.pdf>

Course Learning Outcomes:

After completing this short-term course students will gain with

1. Proficiency in Excel.
2. Data Analytical tools with Excel.
3. Data Visualization tools with MS-Excel:
4. Creating Pivot-Table Mastery.
5. Participants will have a solid foundation for further studies in data analysis, statistics, or related fields.
6. Successful completion of the course can enhance participants' career prospects by equipping them with sought-after data analysis skills.
7. Participants will be better equipped to solve real-world problems using data-driven insights and informed decision-making.
8. Students will realize confident navigating and utilizing Excel for various data analysis tasks.

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