

AC –

Item No. –

**As Per NEP 2020**

**Tolani College of  
Commerce  
(Autonomous)**



**Title of the Course: Data Analysis using Spread Sheet  
(Semester IV)**

**Programme: Bachelor of Commerce (Logistics)**

**Syllabus for 2 Credit Course from the Academic Year 2025-2026**

## Name of the Course: Data Analysis using Spread Sheet

Sr. No.	Heading	Particulars
1	<b>Description of the course :</b>  <b>Including but not limited to :</b>	<p>This course introduces students to data analysis techniques using Microsoft Excel.</p> <p>Emphasising industry-relevant skills, students will learn essential tools for data summarisation, visualisation, and manipulation, equipping them for practical data-driven decision-making in professional environments.</p>
2	<b>Vertical :</b>	Open Elective
3	<b>Type :</b>	Theory
4	<b>Credit:</b>	2 credits
5	<b>Hours Allotted :</b>	30 Hours
6	<b>Marks Allotted:</b>	50 Marks Continuous Evaluation 20 marks and Semester End Examination 30 marks
7	<b>Course Objectives:</b> <ol style="list-style-type: none"> <li>1. To develop proficiency in data analysis using Excel.</li> <li>2. To enable students to create and manipulate pivot tables and pivot charts for effective data summarization.</li> <li>3. To introduce students to importing, exporting, and organizing data within spreadsheets.</li> </ol>	
8	<b>Course Outcomes:</b> <ol style="list-style-type: none"> <li>1. Ability to utilize Excel tools for data communication and e-reporting.</li> <li>2. Competence in summarizing data using analysis functions, pivot tables, and pivot charts.</li> <li>3. Proficiency in chart creation and data visualization.</li> </ol>	

9	<b>Module 1: Excel Fundamentals and Data Manipulation (15 Hours)</b>
	<ol style="list-style-type: none"> <li><b>1. Introduction to Excel Interface</b> <ul style="list-style-type: none"> <li>● Workbook structure: Sheets, cells, and navigation</li> <li>● Overview of toolbars: Title bar, ribbon, file tab, and formula bar</li> </ul> </li> <li><b>2. Managing Data in Cells and Ranges</b> <ul style="list-style-type: none"> <li>● Selecting and formatting cells, columns, and rows</li> <li>● Adjusting column width, row height, and applying autofill</li> </ul> </li> <li><b>3. Formulas and Basic Functions</b> <ul style="list-style-type: none"> <li>● Using essential functions: SUM, AVERAGE, IF, COUNT, MAX, MIN</li> <li>● Introduction to formula building and AutoSum</li> </ul> </li> <li><b>4. Advanced Formula Functions</b> <ul style="list-style-type: none"> <li>● Text functions: PROPER, UPPER, LOWER</li> <li>● Lookup functions: VLOOKUP, HLOOKUP, MATCH</li> </ul> </li> <li><b>5. Data Organization Techniques</b> <ul style="list-style-type: none"> <li>● Splitting screens, freezing panes, hiding and protecting sheets</li> <li>● Copying, moving, and pasting data between sheets</li> </ul> </li> </ol>
	<b>Module 2: Data Analysis, Visualization, and Pivot Tables (15 Hours)</b>
	<ol style="list-style-type: none"> <li><b>1. Data Analysis Tools</b> <ul style="list-style-type: none"> <li>● Sorting and filtering data, text-to-column conversion</li> <li>● Data validation: Creating rules and handling input errors</li> </ul> </li> <li><b>2. Chart Creation and Formatting</b> <ul style="list-style-type: none"> <li>● Types of charts: Column, line, pie, and bar charts</li> <li>● Customizing charts: Legends, data tables, and object formatting</li> </ul> </li> <li><b>3. Pivot Tables and Pivot Charts</b> <ul style="list-style-type: none"> <li>● Creating and formatting pivot tables</li> <li>● Analyzing data with pivot charts and customizing layouts</li> </ul> </li> <li><b>4. Data Import and Export</b> <ul style="list-style-type: none"> <li>● Importing data from external sources</li> <li>● Exporting data to other formats (CSV, PDF, etc.)</li> </ul> </li> <li><b>5. Introduction to Macros</b> <ul style="list-style-type: none"> <li>● Recording and running macros for repetitive tasks</li> <li>● Basic macro management: Editing and deleting macros</li> </ul> </li> </ol>
10	<b>Reference Books:</b> <ul style="list-style-type: none"> <li>● Freund, Steven M., Eric Schmieder, and Joy L. Starks. Microsoft Excel 2016: Comprehensive. Cengage Learning, 2017. ISBN: 9781305870727.</li> <li>● Walkenbach, John. Excel 2019 Bible: The Comprehensive Tutorial Resource. Wiley, 2018.</li> <li>● Jelen, Bill. Excel Pivot Tables and Pivot Charts. Pearson Education, 2015.</li> </ul>

<b>11</b>	<b>Internal Continuous Assessment: 40%</b>	<b>Semester End Examination: 60%</b>	
<b>12</b>	<b>Continuous Evaluation through: (20 marks)</b>	1) Practicals (20 marks)	A learner must be present for each of the sub-components
<b>13</b>	<b>Format of SEE Question Paper: (30 marks)</b>		
	<b>Question No.</b>	<b>Nature of Question</b>	<b>Maximum Marks</b>
	<b>Q-1</b>	Short notes: (attempt any 2 of 3) a) b) c)	10 Marks
	<b>Q-2</b>	Short notes: (attempt any 2 of 3) a) b) c)	10 Marks
	<b>Q-3</b>	Short notes: (attempt any 2 of 3) a) b) c)	10 Marks

### Signatures of Team Members

<b>Sr.No.</b>	<b>Name</b>	<b>Signature</b>
1.	Ms. Amrita Nambiar	