COURSE TITLE	**IT SKILLS AND DATA ANALYSIS-I**
COURSE CODE	**04GB0108**
COURSE CREDITS	**2**

Course Outcomes: After completion of this course, student will be able to:

1 Equip the student with some fundamental concepts, which play a critical role in understanding and visualizing real world data.

2 Represent and interpret data in tabular and graphical forms and interpret the measures of central tendency and dispersion.

3 Enable the student to analyze data and problem situations using relevant IT tools.

Pre-requisite of course:N/A

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	**Fundamentals of Statistics** Concept of datasets (Variables, Observations) Different types of variables (Quantitative and Qualitative) Distinction between primary and secondary sources of data, Basic idea of using questionnaire to collect primary data for analysis How to construct a questionnaire Concept of frequency distribution: cumulative and relative frequencies, Introduction to spreadsheet Tabular and graphical presentation of data: data tables, frequency curve, histogram, bar graphs, pie charts (through the use of spreadsheets)	15
2	**Measure of Central Tendency and Dispersion** Measures of central tendency: mean, median, mode Examples of situations where it is appropriate to use the mean, median and mode. Weighted mean, Measures of dispersion: range, variance, standard deviation Quartiles, deciles and percentiles, Visualize the measures of central tendency and dispersion through frequency curve and histogram.	15
Total Hours		**30**

Textbook :

1 Statistics without tears, Rowntree D, Allyn and Bacon, 2018

2 Statistics for Management, Levin, Rubin, Rastogi and Siddiqui, Pearson, 2022

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References:

1 Essentials of Statistics, Essentials of Statistics, Mario F. Triola, Pearson, 2022

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
20.00	30.00	25.00	15.00	10.00	0.00

Supplementary Resources:

1 https://support.microsoft.com/en-us/office/lookup-function-446d94af-663b-451d-8251-369d5e3864cb
2 https://sbm.nmims.edu/docs/2024/Advances-in-Data-Analytics-for-Business-Decision-Making.pdf
3 https://assets.cambridge.org/97811084/83018/frontmatter/9781108483018_frontmatter.pdf
4 https://www.depts.ttu.edu/itts/apps/handouts/Excel-DataAnalysis.pdf
5 https://4-h-extension.media.uconn.edu/wp-content/uploads/sites/3389/2021/12/AnalyzingDataUsingExcel.pdf
6 https://www.npmjs.com/package/nosql

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