

COURSE TITLE	IT SKILLS AND DATA ANALYSIS-II
COURSE CODE	04GB0209
COURSE CREDITS	2

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

- 1 Visualize functions which play a critical role in understanding and visualizing real world data.
- 2 Analyze data and problem situations using relevant IT tools
- 3 Establish relationships between variables using correlation and regression analysis.

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	Functions and Graphical Representations Definition and graphical representation of a function, vertical line test, Polynomial functions: linear, quadratic and cubic functions, Reciprocal, exponential and logarithmic functions, Concept of slope of a function through graphical representation	10
2	Relationship between variables Scatter diagrams, Correlation analysis : measure and interpretation of correlation coefficient, Coefficient of determination, Hypotheses, model specification and testing, Bi-variate regression analysis: method of least squares, curve of best fit as a model for prediction, Multiple Linear Regression	20
Total Hours		30

Textbook :

- 1 Statistics without tears, Rowntree Derek, Penguin UK, 2018
- 2 Statistics for Management, Levin, Rubin, Rastogi and Siddiqui, Pearson, 2017

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

Instructional Method:

- 1 Theory