

PROGRAMME NAME: : B.A Programme

COURSE NAME : Statistical software R

SEMESTER DURATION: January to May

Week	Topic(s)	Teaching Methodology Adopted/ Continuous Internal Evaluation
1	Introducing R, using R as a calculator; Explore data and relationships in R	Lectures
2	Reading and getting data into R: Combine and scan commands, viewing named objects and removing objects from R	Lectures/Discussion
3	Types and structures of data items with their properties, Working with history commands, Saving work in R.	Assignments/Quizzes
4	Manipulating vectors, Data frames, Matrices and lists	Presentations
5	Viewing objects within objects, Constructing data objects and their conversions.	Case Study
6	Summary commands: Summary statistics for vectors,	Demonstration
7	Data frames, Matrices and lists;	Lectures
8	Summary tables.	Discussion/Seminars
9	Stem and leaf plot, Histograms,	Tutorials
10	Density function and its plotting	Discussion
11	The Shapiro-Wilk test for normality, The Kolmogorov-Smirnov test	Lectures/Practicals

12	Plotting in R: Box-whisker plots, Scatter plots, Pairs plots,	Practicals
13	Line charts, Pie charts, Cleveland dot charts,	Case Study
14	Bar charts; Copy and save graphics to other applications.	Case Study

Course Objectives: The purpose of this course is to help you begin using R, a powerful free software program for doing statistical computing and graphics. It can be used for exploring and plotting data, as well as performing statistical tests.

Course Learning Outcomes: The course will enable the students to:

- i) Use R as a calculator
- ii) Read and import data in R.
- iii) Explore and describe data in R and plot various graphs in R.