

RESEARCH AND POSTGRADUATE DEPARTMENT OF COMMERCE

HENRY BAKER COLLEGE, MELUKAVU

CERTIFICATE PROGRAMME

Programme Code : HBC/COM/CP04/2019-20

Title of the Course: Certificate Program in an Introduction to R software (CPIRS)

Faculty in charge: **Shinu Thomas P.**

Instructional Hours: **30 Hours**

SYLLABUS

Course Objectives

- Get familiar with r programming language
- Understand statistical analysis using R programming;
- Explore how to analyse research data using statistical methods and R programming
- Explore how to represent data using basic graphs in R.

Course Outcome

This course aims to provide basic training in understanding the concepts in data science and statistical analysis using R programming. The R programming language is one of the most widely used programming languages among the data scientists, researchers and clinicians. Being an open-source software, it is freely available and allows integration with other applications. The course will be a hands-on program where participants will play with the dataset provided to them through exercises and analyses it using R software.

Module 1 : Overview of Data Sciences - Introduction to R programming(7 hours)

Module 2 : Arithmetical Operations in r software(3 hours)

Module 3 : Data Management in r -Data entry-Data Cleaning(5 hours)

Module 4 : Descriptive statistics - Data visualization -Chart-Diagram (10 hours)

Module 5 : Inferential Statistics -ANOVA, Chi-Square test, t-test (5 hours)

Reference

1. Dalgaard, P. (n.d.). *Introductory Statistics with R* (Vol. Second). Springer.