Department of Demography
Faculty of Arts
University of Colombo

Certificate Course in Data Analysis using R/R Studio (Online/Onsite)

1. Introduction

R is currently one of the most requested programming languages in the data science job market. R language is widely used data miners and statisticians for data analysis. Therefore, this course will highlight the benefits of using R for analyzing, visualizing, and sharing data. Thus, this course will provide a unique foundation to step into a meaningful data analysis.

2. Objectives

The objectives of this Certificate Course are as follows:

1. Identify the benefits and the limitations of the R and RStudio compared with other applications
2. Develop the knowledge on how to program in R and how to use R to manage a given dataset.
3. Use the R/RStudio to perform a wider range of the Statistical Data Analysis
4. Develop the basic skills to face the challenges of modern Data Science requirement.

3. Target Groups

This certificate course is designed for local and international participants those who are interested in learning data analysis using statistical packages. Participants from all categories such as A/L pass outs, undergraduates, graduates and professionals are welcomed to this course.

4. Admission Requirements

To be admitted as a student of this course, a candidate should possess any one of the following qualifications:

   a) Completion of G.C.E. (A/L) Examination with certified work experience in a relevant field equivalent for minimum six months

OR

    b) Undergraduate/graduate from a state or private university

OR

    c) Professionals with minimum of six months working experience in a relevant field

AND

    d) Be at least 18 years of age

AND

    e) Should possess basic knowledge in statistics

5. **Medium of Instruction:** English

6. **Course Fee**: Local participants: Rs. 20,000 per participant

                International participants: USD 300

7. **Course Duration:** 15 Weeks (90 Hours)

8. **Teaching Methodology**

- Lectures – online/offline
- Discussions/ lab sessions
- Quizzes and activities
- Lecturer guided self-studies
- Extensive use of case studies

9. **Evaluation**

Method	Marks (Out of 100)
Assignments (Individual/Group)	40
Class Attendance	10
Final Examination	50
Total	100

Pass mark for the course: 50%

Syllabus

R/RStudio

1. Getting start with R/RStudio Understanding basic syntax

2. Basic Univariate Statistics of a dataset

3. Data visualization

4. Data Analysis (Inference Statistics)

5. Data Analysis (Regression & Classification – Supervised Learning)

6. Data Analysis (Unsupervised Learning)

7. Machine Learning Models

8. Text mining and sentimental analysis

For Further Information Contact

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