

INTRODUCTION TO R - LAB

AY 2023-2024 - October\November

OVERVIEW

This Lab aims to provide a comprehensive introduction to the practical use of the R software for statistical data analysis and reporting. We aim to equip students with fundamental skills in two key areas:

a) Mastering Essential R Operations

Our primary focus is to establish a robust foundation in fundamental R operations. Commencing with the basics of data exploration, data manipulation and data management, we'll progressively acquaint students with introductory statistical analyses, encompassing key aspects such as frequencies, hypothesis testing and simple regression. Moreover, we'll delve into data visualization techniques and guide students in creating simple data products.

b) Problem Solving with R

Secondly, we place a significant emphasis on the role of R as a problem-solving tool. While the Lab is designed for beginners, we believe that learning by doing is essential. Through collaborative learning and group discussions, students will cultivate their problem-solving skills by applying R to real-world problems. This approach is tailored to augment students' critical thinking abilities, empowering them to address practical challenges using R.

OBJECTIVES

By the end of this course, students are expected to:

- Develop the ability to read and write code in the R programming language.
- Apply R for data exploration, management, and visualization.
- Demonstrate a practical understanding of R for statistical data analysis.
- Perform basic statistical operations using R.
- Create data products such as reports and slides using R.
- Build a strong foundation to independently expand R skills for future needs.