# BCM College workshop - September 2021

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### 1. Introduction to R (1hr 30m) - Rasin R S

- RStudio tool overview

- Libraries: Installation, load, dependencies

- Data types: (num, chr, list), class, data frames

- Basic operations: Some useful statistical functions, control flow

- Import/export: text, csv, excel

- Basics of dplyr, ggplot2 packages

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### 2. R package dplyr (1hr) - Rakesh Poduval

- Features with examples

- Dessert: data.table, dtplyr

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### 3. R package ggplot2 (1hr) - Rakesh Poduval

- Features with examples

- Dessert: plotly

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### 4. Analysis of student's data (1hr 30m) - Rakesh Poduval

- Data preparation: challenges, pre-processing, transformations, filters

- Analysis and interpretations

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### 5. R Packaging (1hr 30m) - Rakesh Poduval

- Basic structure, namespace, dependencies

- Build a simple "hello world" package

- Build package "BCM" with the data provided

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### 6. Introduction to GitHub - Rakesh Poduval - Optional

- Repositories, teams, overview, collaborate with others.

- Create, clone, initial setup with R Studio, pull and push

- Track changes, revert, share.

- Create a team & repository for BCM ?