# Program Contents

Key:

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|  |  |  | Names [name(s)] |
| Mainly theory | Guided R code + theory | Mainly independent or group tasks | Lead facilitator [assisting facilitator(s)] |

## Week 1: 20th-24th March-2023. Introduction to R and Data Management using R.

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| Time | Session | Learning outcomes | Facilitator(s) |
| Monday (20th, March 2023)  17:00-19:00 | Introduction to R and R studio | * Set up a project. * R data structures * Load internal and external data files. | Jacqueline Materu  [Sophia Kagoye] |
| Tuesday (21st, March 2023)  17:00-19:00 | R language | * Programming skills * How to code * Create Clean scripts. | Sophia Kagoye  [Neema Mosha] |
| Wednesday (22nd, March 2023)  17:00-19:00 | Data wrangling 1 | * Modify objects. * Reshape: Melt, cast, gather | Jacqueline Materu  [Neema Mosha] |
| Thursday (23rd, March 2023)  17:00-19:00 | Data wrangling 2 | * Sorting data * Joining multiple data * Dealing with dates * Missing values * Labelling | Neema Mosha  [Sophia Kagoye] |
| Friday (24th, March 2023)  17:00-19:00 | Data wrangling 3 | * Tidy verse approach * Summary, mutate, filter, distinct, ungroup | Neema Mosha  [Jacqueline Materu] |

## Week 2: 27th-31st March-2023. Descriptive Statistics.

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| Time | Session | Learning outcomes | Facilitator(s) |
| Monday (27th, March 2023)  17:00-19:00 | Data summarization | * One categorical variable * a character vector or factor * One quantitative variable or a numeric vector * bivariate data | Sophia Kagoye  [Neema Mosha] |
| Tuesday (28th, March 2023)  17:00-19:00 | Data Visualization 1 | * Single layer plots | Jacqueline Materu  [Sophia Kagoye] |
| Wednesday (29th, March 2023)  17:00-19:00 | Data Visualization 2 | * Multi-layer plots | Neema Mosha [Jacqueline Materu] |
| Thursday (30th, March 2023)  17:00-19:00 | Data Visualization 3 | * Faceting   Saving in .eps, .pdf … | Sophia Kagoye  [Neema Mosha] |
| Practical (31st, March 2023)  17:00-19:00 | Practical session   * Use given data sets and questions to practise (importation of data, data management and descriptive statistics) | * Presentation in group work | ALL [NM, JM,SK,EK,RB] |