



FUNDAMENTALS OF R-PROGRAMMING



OVERVIEW

This course aims to aid individuals in the field of health science, health policy and health administration who are keen on developing their knowledge in quantitative research methods and building computation skills under an open-source platform.

OBJECTIVES

Through the completion of this course, individuals will be able to

- Understand the fundamentals of R, a widely known open-source language.
- Explain the basic ideas of programming in R, such as functions, variables, data types, pipelines, and vectors.
- Create summary tables using R
- Create basic bar charts, histograms, pie charts, scatter plots, line plots, box plots, and maps using R
- Conduct data analysis

DURATION

Weekly 2 classes on Monday and Friday, 2 hours each for 6 weeks from

14 March - 25 April 2022.

Time: 6pm - 8pm IST

PRE-REQUISITE

Basic knowledge in mathematics

MATERIALS

Lectures and course handouts will be provided.

EVALUATION

Credit will be given for completing all assigned weekly homework exercises.

FEES

Rs 11,800(Including GST) /-

MODE

Online - Microsoft Teams & EDX Elearning

CONTACT

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SYLLABUS

W1 Session-I	Introduction, Installation, and orientation
W1 Session-II	Basic operations and data structures in R
W2 Session-I	Data import, export, and manipulation
W2 Session-II	Control Structures and Repeat Operations
W3 Session-I	Functions in R
W3 Session-II	Learning Debugging through developing and using user-defined functions in R
W4 Session-I	Data Visualization using Base R
W4 Session-II	Data Visualization using ggplot2
W5 Session-I	Exploratory data analysis in R
W5 Session-II	Statistical inference using R
W6 Session-I	Multivariate data analysis using R
W6 Session-II	A case study using R

Evaluation Scheme

Week	Topic	Method
I	Basic operations in R	Assignment
II	Data manipulation and control structures	Assignment
III	Functions and debugging	Assignment
IV	Visualization	Assignment
V	Statistical analysis	Assignment
VI	All topics	Final Exam

REGISTRATION

1. Pay course fee through NEFT
2. Complete registration by filling the [google form](#).

www.stjohns.in/www.sjri.res.in

ACCOUNT DETAILS

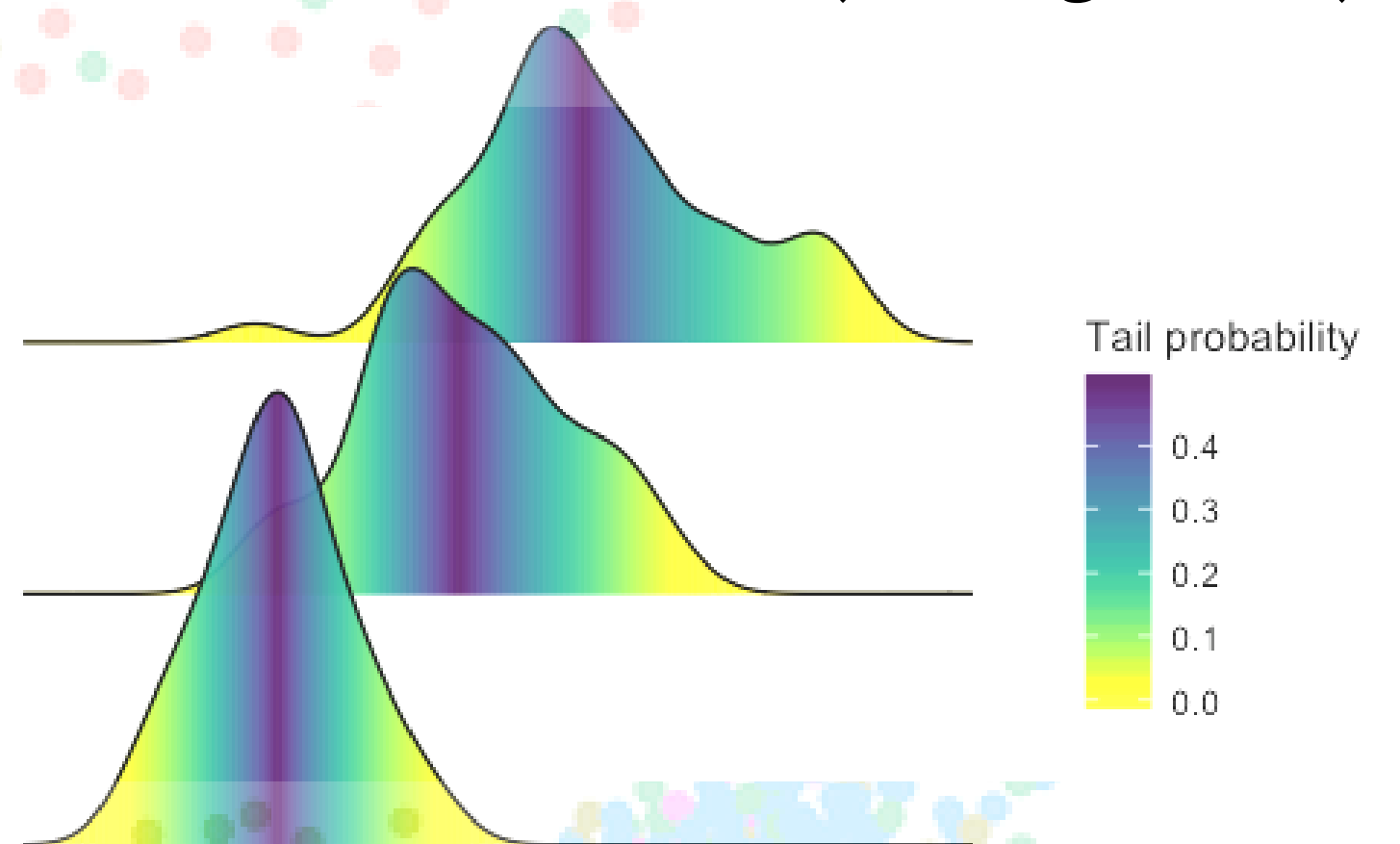
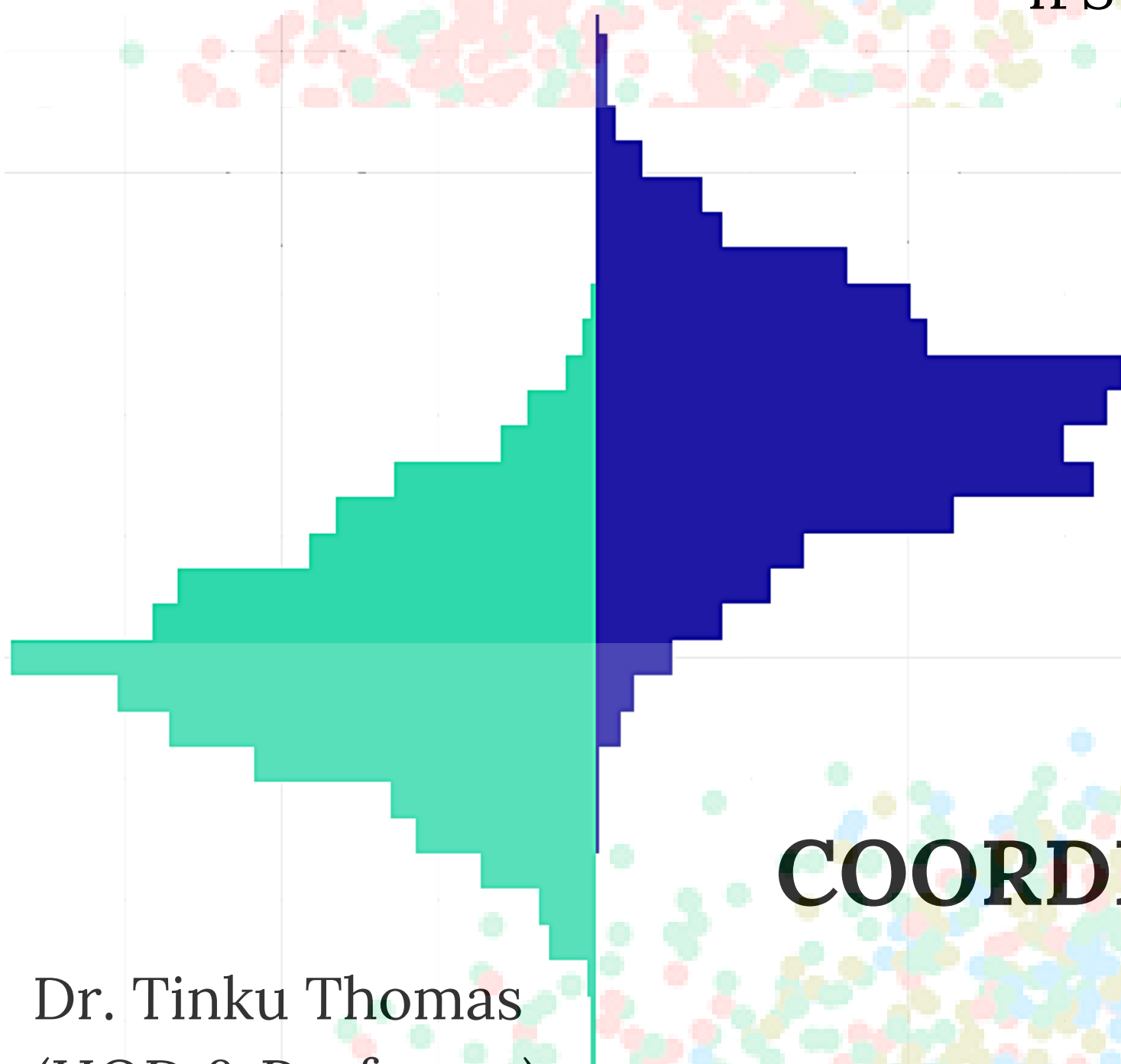
Beneficiary name: St. John's Medical College

Bank name: Bank of Baroda

Beneficiary's Bank A/c#: **05210200000212**

Branch: John Nagar

IFSC Code: **BARBOSTJOHN** (5th digit zero)



COORDINATORS

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