St. John's Medical College & Research Institute

Live Online

FUNDAMENTALS OF R-PROGRAMMING

St. John's
National Academy of Health Sciences

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, participants 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 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 12 weeks from
16 FEB 2026 - 18 MAY 2026.
Time: 6pm - 8pm IST
Registration closes on 9th FEB 2026

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

CONTACT

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Mobile: +91 9538147676
Email: biostatws@stjohns.in

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

Evaluation Scheme

Topic	Method
Basic operations in R	Assignment
Data manipulation and control structures	Assignment
Functions and debugging	Assignment
Visualization	Assignment
Statistical analysis	Assignment
All topics	Final Exam

REGISTRATION

1. Pay course fee (NEFT/UPI/ Credit Card/ Debit Card)
2. Complete registration by filling the google form.

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

Registration closes on 9th FEB 2026

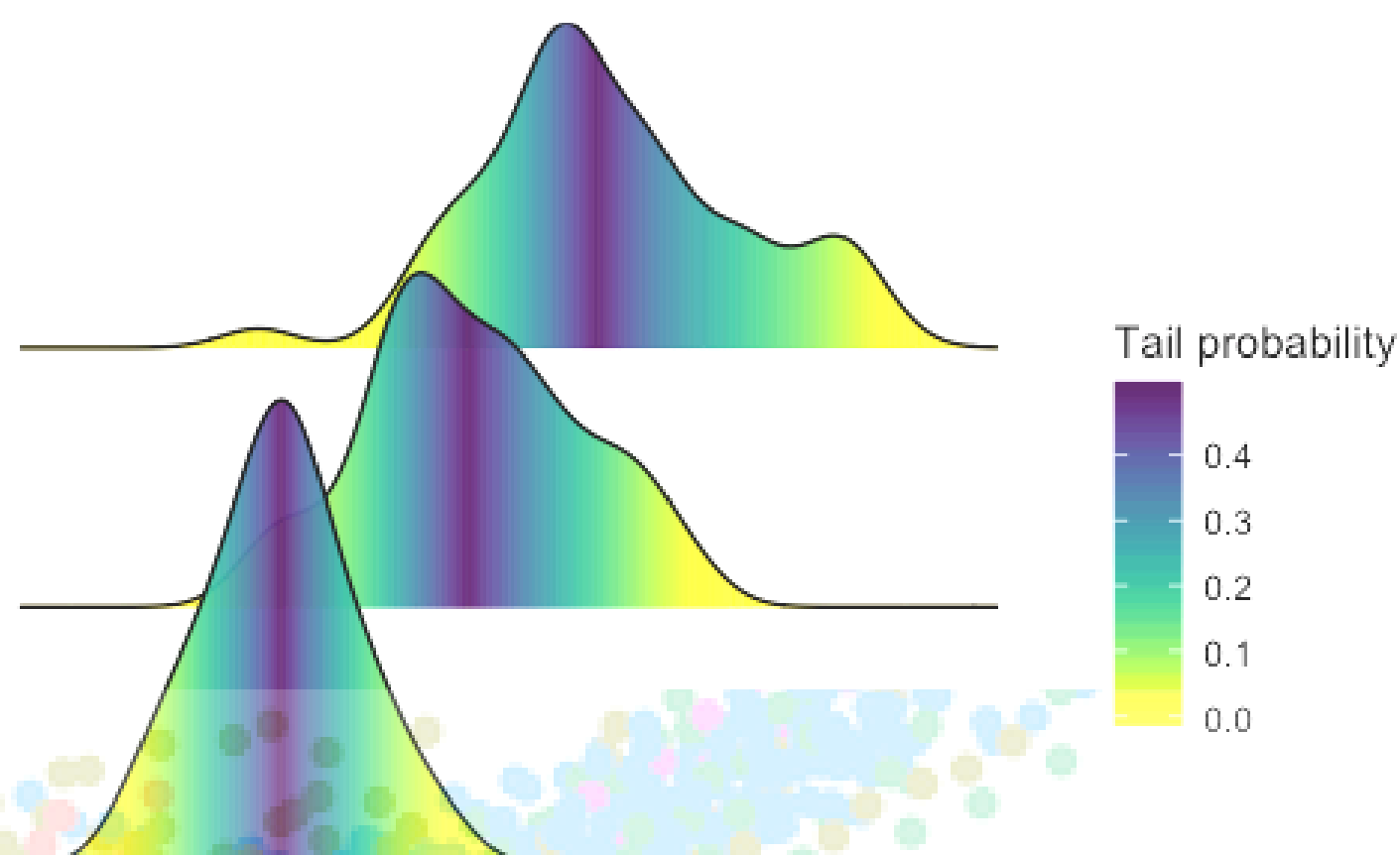**Scan here for the google form**

ACCOUNT DETAILS

Beneficiary name: St. John's Research Institute

Bank name: Bank of Baroda

Beneficiary's Bank A/c#: **05210200000512**

Branch: John Nagar

IFSC Code: **BARB0STJOHN (5th digit zero)**

Tail probability
0.4
0.3
0.2
0.1
0.0

COORDINATORS

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