



The Hebrew University of Jerusalem

Syllabus

Introduction to R for biostatistics - 98453

Last update 08-05-2024

HU Credits: 1

Degree/Cycle: 2nd degree (Master)

Responsible Department: Public Health

Academic year: 0

Semester:

Teaching Languages: Hebrew

Campus: Ein Karem

Course/Module Coordinator: Dr. Shai Carmi

Coordinator Email: shai.carmi@mail.huji.ac.il

Coordinator Office Hours:

Teaching Staff:

Ms. Hadasa Kaufman,
Ms. Elisheva Heilburn

Course/Module description:

R is a programming environment used as a central tool for data analysis in a wide range of fields, including epidemiology and biostatistics. This short course, which is intended for students without background in programming, will cover the basic aspects of R. The course will introduce basic programming in R, as well as simple tasks, including: arithmetic operations, variables, data structures, control flow, important built-in functions, and creating new functions. In addition, we will cover working with files, descriptive statistics, useful statistical functions, and plotting.

Course/Module aims:

Learning outcomes - On successful completion of this module, students should be able to:

To program in R
To perform data analysis, visualization, simulations, and statistical inference in R

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:

Introduction
Simple plots
Vectors and sequences
If-else
Loops
Matrices
Functions
Data frames and lists
Basic statistics
Simulations
Advanced plots

Required Reading:

None

Additional Reading Material:

Grading Scheme:

Written / Oral / Practical Exam 60 %

Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 40 %

Additional information:

You have to pass the test to pass the course.