The Hebrew University of Jerusalem

Syllabus

STATISTICS LAB - 52568

Last update 13-10-2018

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Statistics

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Yuval Benjamini

Coordinator Email: yuval.benjamini@mail.huji.ac.il

Coordinator Office Hours: Flexible.

Teaching Staff:
  Dr. Yuval Benjamini

Course/Module description:
  A complete statistical analysis of a complex data set.

Course/Module aims:
  To analyze genuine consulting problems and data sets "from A to Z", and thus to apply and integrate the material studied during the B. A. degree - as well as learning and applying some additional theoretical techniques.

Learning outcomes - On successful completion of this module, students should be able to:
  Understand the research objectives of a consultee.
 Analyze a complex data set in order to understand the meanings of the variables and the relations between them, as well as locating errors and outlying observations.
 Formulate a statistical model (or models) which are appropriate for the research objectives.
 Determine whether the models describe the data, and make appropriate modifications if not.
 Apply the models to analyze the data, by executing statistical software packages and also writing computer code.

Attendance requirements(%):
  100

Teaching arrangement and method of instruction: We will spend the entire semester analyzing statistical problems. The class will be divided into groups that will work and present their results. The instructor will present additional theoretical material as needed, and we will discuss the objectives and methods for the next stage of the analysis. Those results will then be presented the following week.

Course/Module Content:
  In addition to applying methods and techniques learned in previous courses (e.g., descriptive statistics, exploratory analysis, regression, computing), we shall also

make extensive use of linear models and computational methods.

Required Reading:
 Will be given in class.

 Additional Reading Material:
  Will be give in the course

 Course/Module evaluation:
  End of year written/oral examination 25 %
  Presentation 10 %
  Participation in Tutorials 0 %
  Project work 0 %
  Assignments 40 %
  Reports 0 %
  Research project 0 %
  Quizzes 25 %
  Other 0 %

Additional information:
  Evaluation:
Exercises will be given regularly and will be marked (40%). Each group will present at least once before the class. (10%)
On the 11th week there will be a written exam (25 % of the score). Also, in the final 2 weeks each group will present a summary of the work (25%).

If a student misses a meeting, 3 points will be deducted from his/her final grade.