האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

EXPERIMENTAL DESIGN AND STATISTICAL ANALYSES - 73954

Last update 09-02-2014

HU Credits: *4*

Degree/Cycle: *2nd degree (Master)*

Responsible Department: *Nutritional Sciences - International Prog.*

Academic year: *2*

Semester: *1st Semester*

Teaching Languages: *English*

Campus: *Rehovot*

Course/Module Coordinator: *dr. Dan Ramon*

Coordinator Email: *dnrmon@gmail.com*

Coordinator Office Hours: *by appointment*

Teaching Staff:
Dr. Dan Ramon,
Dr. hadas Don

Course/Module description:
Students will be taught a scientific approach to basic statistics and specific methods relevant to their field of study. The course will include experimental design, and analyzing and evaluation of statistics used in research.

Course/Module aims:
To establish basic statistics skills for research students.
To present basic concepts of ethics in statistics.
To promote critical thinking in statistics.

Learning outcomes - On successful completion of this module, students should be able to:
- *Apply statistical inference in their research field.*
- *Use the basic principles of statistics.*
- *Analyze data with statistics tools*

Attendance requirements(%):
Optional

Teaching arrangement and method of instruction: Frontal lectures and practical exercises.

Course/Module Content:
Brief review of statistical concepts
Summary and presentation of numerical variables
One sample t-test
Paired sample t-test
Two-sample t-tests
One way analysis of variance
Pair wise comparisons (Tukey-Kramer HSD, Fisher LSD)
Two way analysis of variance
Repeated measures analysis
A brief review of more complex experimental designs
Correlation coefficients

Simple linear regression
Multiple linear regression
Analysis of covariance
Summary and presentation of categorical variables
Analysis of contingency tables

Required Reading:

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Additional Reading Material:

Sokal RR & Rohlf FJ. Biometry: The Principles and Practices of Statistics in Biological Research, 3rd Edition, 1994.

Course/Module evaluation:

End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 70 %
Assignments 30 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

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