האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

RESEARCH METHODS IN COGNITION - 6132

Last update 31-03-2014

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Cogntiive Science

Academic year: 2

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: E. Safra Mt. Scopus

Course/Module Coordinator: Niv Reggev

Coordinator Email: niv.reggev@mail.huji.ac.il

Coordinator Office Hours: Upon request.

Teaching Staff:

Niv Reggev
Lotem Elber

Course/Module description:

The course will include two main sections:
- Statistical section, which will include the foundations of hypothesis testing (sampling distribution, logical errors), statistical methods for analysis of data (t tests, one- and two- way analyses of variance, planned and post-hoc contrasts, mixed designs) and their implementation in SPSS.
- Experimental section which will include the basics of scientific thinking, as well as the basic toolkit used to conduct research. Special emphasis will be given to relevant implementations of the scientific rationale in better understanding the world and, specifically, critical thinking. We will discuss, among other issues, experimental designs, problems and fallacies in research, critical thinking procedures, biases, etc.

Course/Module aims:

Acquiring tools to plan, execute, analyze and asses empirical studies.

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

- Critical thinking (about social studies research, and in general)
- The ability to plan, conduct and perform basic empirical study
- The use of basic statistical tests.

Attendance requirements(%):

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

Course/Module Content:

A non-exhaustive list:

Hypothesis testing
t tests
ANOVAs (one- and two- way, repeated measures)
contrasts

Theory assessment

Research question definition
Operationalization
Correlation and causality
Validity and reliability
Experimental designs

Required Reading:
No obligatory reading material.

Additional Reading Material:
Introduction to statistics for Social Sciences students A / Open University, Units 1-8

Statistical inference / Open University, Units 11-13, 15-16.

Research methods in Social Sciences, the tenants of research and its foundations / Open University, Units 1-3, 5-7

Research methods in Social Sciences, regression and analysis of variance / Open University, Units 11-12

Hays, W. L. (1994). Statistics. NY: Holt, Rinehart & Winston.

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 30 %
Assignments 30 %
Reports 40 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: