



# *The Hebrew University of Jerusalem*

## *Syllabus*

### *Experimental Psychology - 51301*

*Last update 09-08-2022*

*HU Credits: 4*

*Degree/Cycle: 1st degree (Bachelor)*

*Responsible Department: Psychology*

*Academic year: 0*

*Semester: 2nd Semester*

*Teaching Languages: Hebrew*

*Campus: Mt. Scopus*

*Course/Module Coordinator: Prof. Eyal Kalanthroff*

*Coordinator Email: [Eyal.Kalanthroff@mail.huji.ac.il](mailto:Eyal.Kalanthroff@mail.huji.ac.il)*

*Coordinator Office Hours: Needs to be scheduled*

*Teaching Staff:*

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Prof Eyal Kalanthroff,  
Ms. hadar naftalovich,  
Ms. shira hebel,  
Ms. Shir Berebbi,  
Ms. kinneret endevelt

Course/Module description:

In this course are learn about ways in which scientific thinking modes allow a better understanding of the world, and hence - critical thinking. Among other things we will discuss research design, problems and failures in research, critical thinking processes, reasoning biases and more.

Course/Module aims:

The purpose of the course is to introduce students to the principles of critical scientific thinking, as well as concepts and basic tools for conducting research.

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

At the end of the course students will be able to write an original research proposal.

In addition they will be able the read scientific papers from a critical perspective, and understand of the threats and failures that characterize various research designs.

Attendance requirements(%):

Presence mandatory only in -23.6.22

Teaching arrangement and method of instruction: 2 weekly meetings:

1.5 hr lecture for the full class

45 minutes practice meetings in small groups.

Course/Module Content:

- What makes a good theory; History of psychology as a science; experimental approach.
- From theory to a research question to an and experiment
- Theory and experiment, experimental and correlational research designs, statistical correlation and causality.
- experiment: a method to control, experimental vs. quasi-experimental designs.

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- *Within and between subjects designs, reliability.*
  - *Test- validity: predictive validity, content validity, internal validity*
  - *Integration of information from multiple sources, clinical vs. statistical prediction*
  - *Validity of the research results: internal validity, statistical validity, construct validity, ecological validity.*
  - *reasoning biases: Regression to the mean and perception of randomness*
  - *reasoning biases: persistence of beliefs*
  - *reasoning biases: introspection failures*

*Required Reading:*

*Beyth-Marom, R (ED). (2001). Research methods for the social sciences, 2nd ed., Tel- aviv: Open University press.  
units 1,2,3,6,7.*

*Additional Reading Material:*

*Beyth-Marom, R (ED). (2001). Research methods for the social sciences, 2nd ed., Tel- aviv: Open University press.  
units 4,5,8.*

*Course/Module evaluation:*

*End of year written/oral examination 50 %  
Presentation 0 %  
Participation in Tutorials 0 %  
Project work 0 %  
Assignments 0 %  
Reports 0 %  
Research project 45 %  
Quizzes 0 %  
Other 5 %  
Poster presentation*

*Additional information:*

*Course website:  
<http://moodle.huji.ac.il/hu12/>*

*Research proposal needs to be approved (at early stages of the course)*

*Written Exam - online alternatives will be explored in case a written exam will not possible.*

*A grade > 60 is required in both the exam and paper.*