# The Hebrew University of Jerusalem

## Syllabus

# Perception - 51502

*Last update 13-09-2017*

*HU Credits:* 2

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

*Responsible Department:* psychology

*Academic year:* 0

*Semester:* 1st Semester

*Teaching Languages:* Hebrew

*Campus:* Mt. Scopus

*Course/Module Coordinator:* Prof Merav Ahissar

*Coordinator Email:* msmerava@gmail.com

*Coordinator Office Hours:* By appointment

*Teaching Staff:*

*Prof Merav Ahissar*

*Course/Module description:*

*Classical and recent topics in the field of perception*

*Course/Module aims:*

*Understanding perception: the relation between the physical stimuli, their representation in the brain, and our perception of those stimuli in vision, audition, object perception and more*

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

*Course participants will become familiar with important concepts in the field of perception and with the mechanisms underlying perception. Participants will also be acquainted with perception examples from different fields, including in populations with a reading or language difficulty.*

*Attendance requirements(%):*

*90%*

*Teaching arrangement and method of instruction: Lectures in class, homework assignments and a final exam*
*4 out of 5 assignments should be submitted to be allowed to take the exam*

*Course/Module Content:*

*- Introduction: what is perception?*
*- Human eye*
*- The eye and seeing*
*- The brain and seeing*
*- Processing pathways*
*- Object perception and identification*
*- Color and depth perception*
*- Movement perception*
*- The ear and the hearing system*
*- Auditory perception*
*- Speech and music perception, what happens when there are difficulties?*
*- Language and reading difficulty – do they stem from a perception difficulty?*

*Required Reading:*

*- Resnik, J., Sobel, N., & Paz, R. (2011). Auditory aversive learning increases discrimination thresholds, Nat Neurosci, 14(6), 791-796*

*- Amedi et al. (2007). Shape conveyed by visual-to-auditory sensory substitution activates the lateral occipital complex, Nat Neurosci, 10, 687-9*

*- Quiroga, Q. R., Fried, I., & Koch, C. (2013). Brain Cells for Grandmother, Scientific American, 308, 30 – 35*

*- View from the top: hierarchies and reverse hierarchies in the visual system. Hochstein S, Ahissar M. Neuron. 2002 36(5):791-804*

*- Baker et al. (2007). Visual word processing and experiential origins of functional selectivity in human extrastriate cortex, PNAS, 104, 9087-9092*

*- יתכן שיתווספו 1-3 מאמרים לרשימת הקריאה במהלך הסמסטר*

*Additional Reading Material:*

*Grading Scheme:*

*Additional information:*