האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

NEUROPSYCHOLOGY: SUBSTRATES AND MECHANISMS - 51712

Last update 18-11-2016

HU Credits: 6

Degree/Cycle: 2nd degree (Master)

Responsible Department: psychology

Academic year: 0

Semester: Yearly

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Leon Deouell

Coordinator Email: leon.deouell@mail.huji.ac.il

Coordinator Office Hours: Sunday 16:00-17:00

Teaching Staff:
Prof Leon Deouell
Prof Eli Wertman

Course/Module description:
Advanced course in cognitive neuropsychology. The course examines the functional and neuroantomical bases of prevalent neuropsychological deficits,in a critical way.

Course/Module aims:
To expose the students to the state-of-the-art knowledge in neuropsychology, such that they can apply this for evidence-based research and clinical application.

Learning outcomes - On successful completion of this module, students should be able to:
Discuss the global organization of the central nervous system in terms of networks and hierarchies;
Describe the cognitive phenomenology and functional neuroanatomy of the main neuropsychological deficits;
Compare the cognitive effects of different neuro-degenerative diseases
Discuss the underlying premises of cognitive neuropsychology and their limitations;
Explain the cardinal methods in cognitive neuropsychological research and their limitations

Attendance requirements(%):
90

Teaching arrangement and method of instruction: Lectures, Presentation of papers by students, Discussions, Clinic visists

Course/Module Content:
• Terms and underlying assumptions in cognitive neuropsychology
• Research methods
o Functional dissociations and double dissociations
o Structure-function correlations: the lesion effect method
o Functional imaging
o Modularity and Netowrks in the brain
• Functional Neuroanatomy

• Unilateral Neglect
o Phenomenology and cognitive models
o neural models
o prognosis and rehabilitation
• Visual recognition and Agnosia
• Language and aphasia
• Memory systems and amnesia
• Motor Control and Apraxia
• Executive functions and prefrontal cortex
o Dorsolateral prefrontal cortex
o Orbitofrontal cortex
• Neuropsychology of ageing
• Neuropsychology of Dementia
Alzheimer disease, Frontotemporal dementia and semantic dementia
• Emotional systems
• Mechanisms of recovery and rehabilitation

Required Reading:
See Moodle

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 80 %
Presentation 10 %
Participation in Tutorials 10 %
Project work 0 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: