

The Hebrew University of Jerusalem

Syllabus

NEUROPSYCHIATRY: COGNITION OF MENTAL DISORDERS5 - 6828

Last update 07-09-2016

HU Credits: 4

Degree/Cycle: 2nd degree (Master)

Responsible Department: cognitive science

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Dr Shahar Arzy

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Coordinator Office Hours: Please schedule an appointment

Teaching Staff:

Dr. Shahar Arzy

Ms. Racheli Fried

Mr. Gregory Founshtein

Course/Module description:

In this course we shall investigate different pathological conditions: we will meet patients with unique disorders, delve into their stories and discuss experiments aiming at understanding their situation. We will also compare them to insights from philosophy and literature, and hopefully have some insights regarding our own lives.

The course will be accompanied by a hands-on workshop, based on weekly group work. Students will design and conduct an EEG experiment and learn how to analyze their results.

Course/Module aims:

Encouraging a discussion in issues concerning mind and body

Encouraging creative thought

Gaining experience in empirical lab work and data analysis

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

Plan EEG experiments

Perform computational analyses in EEG data

Design a scientific poster

Discuss scientific studies in a critical manner

Attendance requirements(%):

60% frontal lectures

80% workshop meetings

Teaching arrangement and method of instruction: Weekly lecture and hands-on workshop

Course/Module Content:

Wonder in the realm of the mental, and the risks of the reductionist approach.

High function in the brain: neurological and psychiatric examination [clinical

examination]

Simulation in the healthy brain and in the sick brain [modern phenomenology]

Psychogenic disorders: psychological etiology, clinical manifestations, and treatment [REST EEG, frequency analyses]

Hysteria: a brain disorder of mental origins? [task related fMRI]

Out of body experience A: culture, clinical manifestations, pathology [electrical stimulation]

Out of body experience B: Cognitive experimental paradigms and philosophy [ERP, microstates]

Dybbuk, trans and dissociative disorders [behavioral experimental paradigms]

Remembering the future: Time illusions, amnesia and time travel [event related fMRI, REST fMRI]

Presence: Clinic, virtual reality, real reality [brain stimulation, lesion analysis]
Illusions, delusions and hallucination.

Statistics - the good, the bad and the corrupt [statistical models]

Mystics, ecstasy, shamanism: phenomenology and neural basis.

Closed ward psychiatry: schizophrenia, bipolar patients and depression [functional imaging, spectrum]

Psychopathology of everyday life.

Neuropsychiatry: philosophy, computational methods and clinics.

Required Reading:

None.

Additional Reading Material:

Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 0 %

Assignments 0 %

Reports 0 %

Research project 100 %

Quizzes 0 %

Other 0 %

Additional information:

Grade:

10% - Research proposal

10% - Experiment preparation and execution
40% - analysis
35% - Poster and results presentation
5% - individual grade