COURSE DESCRIPTION
Post graduate studies

Introduction to brain imaging, 1.5 hp

COURSE OBJECTIVES
After completion of the course the students will be able to:

• Give an overview of the most common brain imaging techniques; MR/fMRI, EEG, MEG, fNIRS and TMS
• Discuss brain imaging technique’s relative merits and challenges
• Discuss different aspects of experimental design of importance for which brain imaging technique to use
• Evaluate scientific literature in the brain imaging field

CONTENTS
Topics included in the course are:

• Basic knowledge of MR/fMRI (magnetic resonance imaging), EEG (electroencephalography), MEG (magnetoencephalography), fNIRS (functional near infrared spectroscopy) and TMS (transcranial magnetic stimulation)
• Review of experimental design considerations for brain imaging
• Review of scientific literature in the brain imaging field

MODES OF TEACHING/WORKING FORMS
Lectures and journal club/seminars

EXAMINATION
Examination includes active participation in journal club meetings where brain imaging articles are discussed and responsibility for one journal club meeting.

ADMISSION REQUIREMENTS
Registration as doctoral or master student.

GRADING
The grades are Approved and Not approved.

COURSE READINGS
Details of required and recommended reading will be presented at the start of the course.

OTHERS
Student can choose to continue on the courses Introduction to MR and fMRI, 3 hp, and Introduction to EEG and MEG, 3 hp.

The course will be given in English or Swedish depending on the students.

Effective from autumn 2020

Approved by FUN 2020-09-03