UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Introduction To Fmri: Exploring The Mind-Brain Relationship: Theory And Practice In Fmri Studies

2627-122R-18

Titolo

EXPLORING THE MIND-BRAIN RELATIONSHIP: THEORY AND PRACTICE IN fMRI STUDIES

Docente(i)

Eraldo Paulesu/Marco Tettamanti/Lucia Sacheli/Laura Zapparoli

Lingua

English

Breve descrizione

The course aims to introduce the technique of functional magnetic resonance imaging (fMRI) starting from the fundamentals to the understanding of procedures for designing, analyzing, and interpreting fMRI experiments in normal subjects and/or in neurological or psychiatric patients. After an initial theoretical introduction to the principles of anatomo-behavioral inference, students will learn how to quantitatively assess the previous literature on their area of interest. In the next lectures, the following topics will be illustrated: the biophysical principles underlying the measurement of the fMRI signal; the procedures to maximize the measured signal in relation to the experimental

design; different types of experimental design and related statistical analyses. The subsequent sessions will be focused on the "hands-on" component, covering analytical procedures on individual cases, group studies, up to the interpretation of results, and finally, the design of new experiments and how to present them in a funding request.

See the detailed programme and schedule on the course homepage.

CFU / Ore

2CFU/16h

Periodo di erogazione

See the Calendar

Sustainable Development Goals