COURSE DETAIL

COGNITIVE NEUROSCIENCE
Country Netherlands
Host Institution Maastricht University – University College Maastricht
Program(s) University College Maastricht
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Psychology Biological Sciences
UCEAP Course Number 107
UCEAP Course Suffix
UCEAP Official Title COGNITIVE NEUROSCIENCE
UCEAP Transcript Title COGNITIVE NEUROSCI
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

Full course description

Cognitive neuroscience is an entirely new research field that originally emerged from a combination of traditional sciences such as philosophy, psychology, medicine and biology that all investigate the principles of perception, behaviour and cognition from different perspectives.

As technical developments of different methods and tools in the field of cognitive neuroscience came forth, and as theoretical application of different mathematical and computer science-based models were used to explain neuronal functioning, additional disciplines, such as physics, mathematics, bioengineering and computer science materialized as an important part of this research field.

Subsequently, an effective research project in cognitive neuroscience requires an interdisciplinary cooperation, in which each scientific discipline contributes its respective genuine theories, models, techniques and tools for the mutual investigation of the neuronal principles of perception, attention, and cognition.

But can we really watch the brain at work? Are there ways to identify where exactly, and when exactly activation in the brain is necessary to perform a specific mental process? This course will help to give some answers on the basic principles of brain research and it will show relevant applications of these techniques in different areas of cognitive psychology.

Course objectives

- To give an introduction into the new field of cognitive neuroscience.
- To learn which methods a brain researcher can use to investigate the neuronal bases of different mental processes.

Prerequisites

SCI2034 Brain and Action and elementary knowledge of electricity and magnetism as stated under SCI-P(p. vi-viii).

Recommended
SCI1009 Introduction to Biology or SCI2038 Physics (or SCI1030 Physics I) or SSC1005 Introduction to Psychology or SSC2025 Memory.

Language(s) of Instruction
English

Host Institution Course Number
SCI3046

Host Institution Course Title
COGNITIVE NEUROSCIENCE

Host Institution Campus
University College Maastricht

Host Institution Faculty

Host Institution Degree

Host Institution Department
Sciences

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