

COURSE DETAIL

MEET YOUR BRAINS

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

111

UCEAP Course Suffix**UCEAP Official Title**

MEET YOUR BRAINS

UCEAP Transcript Title

MEET YOUR BRAINS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course offers an introduction to the main topics of brain and mind. After completion of the course the student should have a basic understanding of the functional anatomy, physiology, and cell biology of the brain. In addition, the student should be able to relate specific aspects of the mind (e.g. perception, emotion) to brain functions. The learning goals are achieved through an interdisciplinary approach. The course offers the following seven main topics: mapping the brain-functional anatomy of the brain, brain cartography, the connectome, structural and functional connectivity, neural and neuronal networks; the cellular brain-neuronal cells, glia cells, (sub)cellular structure and function; the electric brain-neuro-physiology, electro-physiology, ion channels, voltage and patch clamp; the chemical brain-neurotransmitters/modulators, receptors, enzymes, drugs; looking into the brain-neuro-imaging, eye-tracking, EEG, (f)MRI, CAT, PET, MEG, DTI, observational (psychological) methods; hacking the brain-possible interventions to alter brain function (e.g. chemical and psychological); from brain to mind-mind-body dualism, sensation and perception, thought, soul. These topics are studied in a non-sequential/integrated fashion and are contextually linked to the following three phenomena: sensory processing, stress, and learning and memory. Additional context is provided through a longitudinal project. Both the course topics and contextual phenomena are approached from different disciplinary angles, including biology, chemistry, psychology, physics, and mathematics.

Language(s) of Instruction

English

Host Institution Course Number

FA-BA115

Host Institution Course Title

MEET YOUR BRAINS

Host Institution Course Details

Host Institution Campus

Science

Host Institution Faculty

Host Institution Degree

Host Institution Department

Pharmacy

Course Last Reviewed

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