

COURSE SYLLABUS

Neuro-functional Basis of Cognitive and Affective Processes

2021-1-F5104P047-F5104P048M

Learning area

Psychological functioning: models and methods for assessment

Learning objectives

Knowledge and understanding

- Knowing the cognitive, neurobiological and functional bases of social and affective mental processes.
- Understanding the genesis and dynamics of alterations and disorders of cognitive, communicative, emotional-motivational and social activity

Applying knowledge and understanding

- Acquisition of the ability to apply the acquired knowledge in order to design and carry out empirical studies in the field of social and affective neuroscience.
- Acquisition of the ability to apply the acquired knowledge in order to personally design and carry out clinical interventions focused on specific patients with socio-affective disorders.

Contents

This course provides essential knowledge concerning the main cognitive models and the neurophysiological bases

of social and emotional-motivational processes in humans, in order to promote the understanding of socio-emotional and behavioral functions, both in healthy people and patients with specific social or affective disorders.

Detailed program

- Perception of causality, biological motion and animacy
- Mentalization
- Face and gaze perception
- Social attention and gaze following
- Attentional biases towards social and emotional stimuli.
- Embodied cognition
- Neural bases of social cognition and self-referential processes
- Default mode network
- Conscience: free will and forensic neurosciences
- Mirror neurons, empathy, intention understanding, Autism
- Faces and gestures coding, the Affective and Emotional Brain
- Sex differences in social cognition
- Action Coding: Neuroscience of dance and movement
- Audio-visuomotor neurons and multimodal coding
- Neuroscience of music and Neuroaesthetics

Prerequisites

This course requires a basic knowledge of anatomy and physiology of the nervous system and its cognitive functions.

The understanding of textbook and scientific article in English.

Teaching methods

Frontal lessons with slides and audio/video presentations. Presentation and discussion of ongoing data and research articles.

Lessons will be held in presence or through online video lessons, according to the University's regulations regarding the COVID-19 emergency situation. In both cases, all lessons will be video recorded and made available to the students.

Assessment methods

Written exam with an oral interview on demand (either by the student or by the lecturers). The written examination consists of open questions on textbooks and handouts of the lectures.

During the Covid-19 emergency, exams will be conducted according to the University's regulations regarding the COVID-19 emergency situation.

Textbooks and Reading Materials

1. Boggio, P. and Wingerbach, T., Eds. (2019). How can Social and Affective Neuroscience explain various aspects of human everyday interaction? – from theory to methodology. Hogrefe International, Publisher. Foreword by RALPH ADOLPHS. (Chapters 4, 6, 19 authored by Alice Mado Proverbio)
2. Gazzaniga M.S., Ivry R.B., & Mangun G.R. (2019). Cognitive Neuroscience. New York: Norton (Chapters 13 &14).

Scientific papers/chapters will be provided during the course and uploaded on the appropriate E-learning web page.
