



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Neuro-functional Basis of Cognitive and Affective Processes

2122-1-F5104P047-F5104P048M

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#### Learning area

Applied Experimental Psychological Sciences

#### Learning objectives

*Knowledge and understanding*

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*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.

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## **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.

## **Textbooks and Reading Materials**

Image of the book cover of the textbook 'Textbook of Microbiology' by Dr. P. S. Ramakrishna, published by the Department of Microbiology, University of Madras, India.

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

