COURSE UNIT

Cognitive, Emotional and Social Neuroscience

HEAD LECTURER

Jorge Almeida

ACADEMIC STAFF

André Peres, Jon Walbrin, Zohar Tal, and Fredrik Bergström.

LEARNING OUTCOMES

The goal of this course is to familiarize students with the functioning of the brain, and its relationship with cognitive, emotional and social domains. We will also focus on how the most used methods in neurosciences (fMRI, TMS, EEG, etc.) allow for the understanding of the brain-mind relationship. At the end of this UC, students should be able to understand how different cognitive, affective, and emotional processes are related to different types of response patterns in different neuronal areas.

SYLLABUS

1. Introduction to the Cognitive Neuroscience: The Brain for Beginners.
2. Neuroscience of Vision.
3. Neuroscience of Hearing.
4. Neuroscience of Smell and Taste.
5. Neuroscience of Action - Mirror neurons.
6. Neuroscience of Language.
7. Neuroscience of Memory.
8. Neuroscience of Attention and Consciousness.
9. Neuroscience of Emotional Processes.
10. Neuroscience and Social Cognition - the Self and others.

TEACHING METHODS

The classes will be based on the presenting the most current theoretical proposals, but students will be encouraged to participate, both by clarifying topics presented in the classes or in the compulsory readings. Classes will require students to do bibliographic research, and to present experiments and data related with one or more scientific articles. Students should also excel in scientific reasoning, and should present a research proposal on one of the topics of the classes.

ASSESSMENT METHODS

1. A final essay on one of the topics of the course (50%);
2. Participation in in-class discussions (50%).

BIBLIOGRAPHY

1. Ward, J. (2009). The Student's Guide to Cognitive Neuroscience, 2nd Edition. New York: Psychology Press.

Scientific articles specific to the thematic content.