



Code: M-PSI/02

Credits: 9

Matter: Anatomic and physiological principles of psychic activities

Main language of instruction: Italian

Other language of instruction: English

Teaching Staff

Head instructor

Prof. Rinaldo Livio Perri - rinaldo.perri@unicusano.it

Didactic tutor:

Dr. Letizia Luzi - letizia.luzi@unicusano.it

Introduction

1) Objective

The main objective of the course is to develop knowledge about the principles of the cerebral processing and physiology. Students will learn the structural and functional techniques of brain investigation, the anatomy and functions of the neurons, motor and sensorial systems.

Objectives

2) Course Structure:

This is an undergraduate-level distance-learning course in neurophysiology and it is divided in nine modules corresponding to the nine formative credits. Course delivery is mainly asynchronous on the proprietary LMS with recorded lessons and corresponding slides and documentation. The interactive teaching is delivered through the forum (virtual classrooms) and video-chatrooms that constitute an synchronous discussion space, where teachers and / or tutors identify the most significant topics and subjects of teaching and interact with students. In particular, in the interactive teaching area, e-tivity with information on course contents will be proposed to the students.

Competencies:

1) To know anatomy and functions of the motor and sensorial systems

- Visual system



- Auditory system
- Gustatory system
- Motor system

2) To know the cellular mechanisms of neuronal communication

- Neurotransmitters
- Neurons

Syllabus

3) Program of the course:

Subject 1. Introduction history of neuroscience and investigation techniques

Subject 2. Cellular biology of the nervous system

Subject 3. Neuronal communication

Subject 4. Neurotransmitters

Subject 5. Anatomy and development of the nervous system

Subject 6. Functional anatomy of the nervous system

Subject 7. Sensorial systems

Subject 8. Somatosensory system

Subject 9. Motor system

Evaluation system and criteria

Final exam (100% of final grade): A written test with 30 multiple choice questions.

Bibliography and resources

4) Materials to consult:

- Course materials provided by the professor

5) Recommended bibliography:

- Bear, M. F., Connors, B., & Paradiso, M. (2009). Neuroscience: Exploring the brain. 2007. Computational and Mathematical Methods in Medicine Gastroenterology Research and Practice Evidence-Based Complementary and Alternative Medicine, 2014.