UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Neuropsychological Semeiotic and Assessment

2526-1-F5110P002

Learning area

MODELS AND METHODS FOR ASSESSMENT OF PSYCHOLOGICAL FUNCTIONING

Learning objectives

The course aims to expand the information provided in the Neuropsychology course of the 1st semester in a clinical perspective, allowing the student to learn the theoretical principles and techniques necessary for the diagnostic-clinical and prognostic framework of adult patients affected by neuropsychological disorders, also in relation to the underlying neurological pathologies.

KNOWLEDGE AND UNDERSTANDING ABILITY
At the end of the course, the master's graduates have acquired:
• advanced knowledge and skills in the field of Neuropsychological Semiotics.
• knowledge and skills relating to the various methods of neuropsychological practice: anamnestic collection, clinical interview, application and correction of psychometric tests, drafting of the report and feedback to the patient.
• knowledge and skills regarding neuropsychological syndromes and deficits.

ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING
The course promotes the promotion of:
• ability to understand and use knowledge and clinical data about patients, useful in the clinical neuropsychological field.
• ability to set up and perform a neuropsychological examination.
• ability to formulate diagnostic hypotheses about neuropsychological deficits.

JUDGMENT SKILLS
The course promotes the development of

• critical and reflective ability in the analysis of the neuropsychological assessment and diagnosis process, with particular reference to the relationship between the professional and the patient.
• Through discussions of clinical cases, students acquire tools to independently evaluate the different factors that influence the choice of psychometric tools, the interpretation of the score and the drafting of the report.

COMMUNICATION SKILLS
At the end of the course, the master's graduates have acquired:
• ability to communicate and collaborate in work groups and in heterogeneous and interdisciplinary environments;
• ability to communicate with brain-damaged patients and their families;
• ability to carry out high-level dissemination activities of scientific culture, with particular reference to Neuropsychology;
• ability to understand and use fluently in written and oral form the English language, with particular reference to disciplinary and technical lexicons.

LEARNING SKILLS
At the end of the course, the master's graduates have acquired:
• ability to learn from the analysis of multidisciplinary literature through the selection and combination of different sources of information, evaluating their reliability;
• ability to learn and promote the developments of scientific, technological and clinical innovation in the field of Neuropsychology.

Contents

The neuropsychological semeiotics The neuropsychological methodology. Clinical neuropsychological examination and psychometric neuropsychological tests; the neuropsychological assessment of neuropsychological deficits and syndromes caused by focal and diffuse brain lesions.

Detailed program

- Neuropsychological semeiotics
- Neuropsychological evaluation: clinical assessment.
- Psychometric neuropsychological tests.
- Disorders of oral language: aphasias.
- Acquired dyslexias and dysgraphias.
- Dyscalculia: number processing and calculation disorders (elements).
- Disorders of planning of voluntary movement: apraxias.
- Memory disturbances.
- Deficits of attention.
- Deficits of recognition and identification of objects, colours and faces: agnosias.
- Deficits of spatial cognition: unilateral spatial neglect and other spatial deficits.
- Deficits of awareness of disease: anosognosia.
- Disorders of consciousness (elements).
- Disorders of executive processes. Neuropsychology of head injury.
- Syndromes of interhemispheric disconnection.
- Dementias.

Prerequisites

It is assumed:

- basic knowledge of Genetics and Biology;
- knowledge of anatomy and physiology of the nervous system;
- knowledge of the neuro-functional organization of cognitive and emotional-motivational processes;
- knowledge of the neuropsychological scientific method.

Teaching methods

Classroom lessons in Italian with audio-visual material, classroom discussions, case presentations, group work.

Hours of teaching activity organized as frontal lessons: 60% of the total
Hours of teaching activities involving classroom discussions, presentation of cases, group work: 40% of the total

Assessment methods

Written assessment, that includes multiple-choice questions, and open questions on the topics of the course. An example of the organization of the written assessment is the following:

a) 32 multiple choice 4-alternative questions, with 1 correct choice. One point is assigned for each correct answer, with no penalty. The minimum score for a successful assessment is 18 out of 32 correct answers. Example: “in Broca’s aphasia oral language is: 1: fluent; 2: telegraphic (correct choice); 3: abundant; 4: a jargon.An open question to be answered in an exhaustive and concise way on a clinical case. Example: “A 65-year-old patient is referred to you from the neurology department for a neuropsychological assessment. Etiology: left cerebral ischemia. Describe the first visit ”. A maximum of 32 points is assigned to the open question, based on the evaluation made by the professor. The final grade will be the average of the two parts of the written exam.

P. N. Although this course is held in Italian, for Erasmus students, course material can also be available in English, and students can take the exam in English if they wish to do so..

Textbooks and Reading Materials

· Vallar G, Papagno C (a cura di) (2018). *Manuale di neuropsicologia. Clinica ed elementi di riabilitazione*. 3? edizione. Il Mulino, Bologna (selected parts).

· Mondini S, Mapelli D, Arcara G (2016). Semeiotica e diagnosi neuropsicologica. Metodologia per la valutazione. Carocci editore.

For consultation:
· Mondini S, Cappelletti M, Arcara G (2023). Methodology in Neuropsychological Assessment. Riutledge, Taylor & Francis Group: London and New York.

· Materials made available on the e-learning site.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING