UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Neuropsychology of Adulthood and Aging - 2

2223-1-F5104P002-T2

Learning area

MODELS AND METHODS FOR ASSESSMENT OF PSYCHOLOGICAL FUNCTIONING

Learning objectives

Knowledge and understanding
· Elements of history of neuropsychology
· Basic elements of neurology and neuroimaging, useful in neuropsychology.
· Neuropsychological assessment: clinical examination and psychometric tests.
· Main neuropsychological syndromes.

Applying knowledge and understanding
· To promote the ability to understand and use neurological knowledge and data about patients, useful for clinical neuropsychology.
· To promote the ability to set up and perform a neuropsychological assessment.
. To promote the ability to make diagnostic hypotheses about neuropsychological deficits.

Contents

History and methods of neuropsychology; elements of neurology and neuroimaging; clinical neuropsychological examination and psychometric neuropsychological tests; main diseases responsible of neuropsychological disorders (elements); main neuropsychological syndromes brought about by focal and diffuse brain damage.

Detailed program

- History of neuropsychology.
- Methodological foundations of neuropsychology: simple and double dissociation between symptoms and signs; neuropsychological syndromes.
- Neurology and neuroimaging (elements)
- 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.
- Disorders of body representation.
- 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.
- Emotional disorders (elements),
- Neuropsychology of psychiatric disorders.

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.

Teaching methods

Room lessons, audiovisual material.

Assessment methods

1) **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 16 points is assigned to the open question, based on the evaluation made by the professor. The final grade will be the weighted average of the written exam (2/3 the multiple-choice questions and 1/3 the open question).

2) Oral test (optional). It consists of one or more open questions, to be answered in an exhaustive and concise way. Example: "What is cross aphasia?". The evaluation of the oral exam is worth a maximum of 16 points and will average with the written exam (1/4 oral + 2/4 multiple-choice questions + 1/4 open question).

The learning by *attending* students may be also evaluated by a written assessment (see above #1), at the end of the course.

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

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 (excluding the cap. 21-22-23, pp. 501-584).

· Materials made available on the e-learning site.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING