UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Assessment and Intervention in Healthy and Pathological Ageing

2627-1-F5111P010

Learning area

Models and techniques for treatment and rehabilitation

Learning objectives

Knowledge and understanding
• Theoretical and Methodological Approaches in Cognitive Psychology and Neuropsychology of Aging
• Foundations of Normal and Pathological Aging Neuropsychology
• Psychometric Tools for Assessing Cognitive Decline
• Methods of Cognitive Stimulation in Healthy Individuals and patients with Dementia
• Clinical Cases of Patients with Cognitive Decline
• New Technologies Applied to Neuropsychological Practice

Applying knowledge and understanding
• Diagnostic procedure in Neuropsychology of Aging
• Critical Discussion of Clinical Cases of Cognitive Decline
• Guidelines for Managing Cognitive Stimulation Groups

Making Judgements
Through open discussion and classroom debate on key topics related to healthy and pathological aging, the course aims to foster a critical and independent perspective in the analysis of major theoretical models and empirical evidence. It encourages the personal development of interpretative hypotheses and theoretical solutions.

Communication Skills
The exam, which consists solely of an oral interview on the topics covered in class and the materials included in the bibliography, is designed to strengthen the ability to communicate complex concepts related to healthy and pathological aging. It emphasizes the use of appropriate scientific language and the adaptation of communication

style to academic and professional contexts.

Learning Skills
The inclusion of recent scientific articles in English in the course bibliography is intended to promote independent study and the ability to critically explore course topics through the use of up-to-date scientific sources.

Contents

The course aims to provide a theoretical overview of cognitive and psychophysiological changes associated with aging, addressing the main theoretical models and the latest research findings in the field. It will cover various forms of cognitive decline, their characteristics, and the underlying psychophysiological mechanisms.
The course will present the diagnostic process, assessment tools, and criteria for differential diagnosis between healthy aging and pathological aging, between dementia and pseudodementia, and between primary and secondary dementias. Clinical cases will be presented to facilitate neuropsychological evaluation.
Furthermore, the course will introduce cognitive enhancement training programs for both healthy and pathological aging, highlighting the latest aids and cutting-edge techniques such as non-invasive brain stimulation and virtual reality devices.

Detailed program

- Theoretical and Methodological Foundations in the Psychology of Ageing
- The cerebral, cognitive, emotive and personality changes in healthy ageing
- Neurocognitive models on healthy ageing
- Theoretical Foundations of Pathological Aging (Dementia)
- Clinical Neuropsychological Examination in Cognitive Decline
- Mild Cognitive Impairment
- Alzheimer's Disease and Atypical Forms
- Vascular Dementias
- Frontotemporal Dementias
- Parkinson's Disease and Atypical Parkinsonism
- Dementia with Lewy Bodies
- Cognitive Enhancement Treatments in Healthy Aging
- Neuropsychological Treatments in Pathological Aging
- New Technologies Applied to Cognitive Enhancement in Healthy and Pathological Aging

Prerequisites

A good background on foundations of brain functioning and epistemological bases of neuropsychology will enable a more informed use of the content of the course.

Teaching methods

Approximately 70% of the lessons will be heldin-person (lectures) and 30% will be carried out, still in person, but in

an interactive (discussions, clinical cases, presentation of neuropsychological tools, practical exercises).

The course materials, including lecture slides and scientific articles for further study, will be made available on the course's e-learning website.

Assessment methods

There are no ongoing (in-itinere) assessments.
The exam format is oral only.
The exam consists of an interview on the topics covered in class, the textbooks, and the scientific articles included in the bibliography.
The questions asked during the exam are aimed at extensively assessing the student's preparation, evaluating the ability to reason critically and make connections between the knowledge acquired. The evaluation criteria contributing to the final grade are: accuracy of answers, adequacy of content, logical and formal organization of answers, as well as the use of terminology specific and appropriate to the academic and professional context. Independence of judgment and the ability to critically reflect on the topics covered will also be assessed.

In particular, the grading will take into account the following criteria:

18
Barely sufficient knowledge of the theoretical and methodological approaches to the study and treatment of healthy and pathological aging. Minimal ability to describe the diagnostic process and the neuropsychological psychometric tools for assessing healthy and pathological cognitive decline. Limited understanding of clinical cases and imprecise use of technical-scientific terminology.

19–22
Knowledge ranging from sufficient to barely adequate of the theoretical and methodological approaches to the study and treatment of healthy and pathological aging. Ability to apply, with some uncertainties, the diagnostic process and the guidelines for cognitive stimulation. Basic understanding of the clinical cases discussed in class. Sufficiently correct use of specialist language in the oral interview.

23–26
Knowledge ranging from fairly good to good of the theoretical and methodological approaches, cognitive stimulation methods, and new technologies applied to neuropsychological practice. Good ability to critically discuss clinical cases, integrating theoretical content with empirical evidence. Independence of judgment still developing. Clear oral presentation, with appropriate use of scientific language.

27–30
Solid and thorough knowledge of the theoretical and methodological models of the neuropsychology of aging, psychometric tools, and cognitive stimulation methods. Good command in applying the diagnostic process and in critically discussing complex clinical cases, also in light of up-to-date scientific sources. Well-developed critical ability and independence of judgment, with personal elaboration of interpretive hypotheses. Effective and well-argued oral presentation, with scientific language appropriate to the academic and professional context.

30 cum laude
Complete, thorough, and critically elaborated knowledge of all theoretical and applied areas of the neuropsychology of healthy and pathological aging, also thanks to the autonomous and critical use of up-to-date scientific sources. Full command in applying the diagnostic process, in critically discussing complex clinical cases, and in managing cognitive stimulation groups. Original and autonomous elaboration of interpretive hypotheses and theoretical solutions. Rigorous, fluent oral presentation, fully appropriate to the academic and professional context, with excellent scientific language

Textbooks and Reading Materials

Neuropsicologia delle demenze (2020). A Cura di: Costanza Papagno e Nadia Bolognini. Il Mulino.

De Beni, R., & Borella, E. (Eds.), Psicologia dell'invecchiamento e della longevità. Bologna, Il Mulino, 2015.

Additional teaching material will be provided during the course

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING