UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Psychobiology of Behavioural Disorders

2627-3-E2401P019

Learning area

Knowledge and skills useful to understand, promote and change individual psychological functioning

Learning objectives

The course aims to develop competencies consistent with the five Dublin Descriptors, as follows:

Knowledge and understanding
To introduce behavioral disorders with a specific focus on their psychobiological foundations and neural correlates.
To understand the interactions between neurobiological aspects and psychopathology, while gaining familiarity with approaches from psychophysiology, neuropsychology, and experimental psychology.

Applying knowledge and understanding
To foster the ability to recognize pathological cognitive, emotional, and behavioral functioning.
To critically assess the contribution of biological and environmental components to the origin of dysfunctional behaviors, also through the analysis of case studies and scientific data.

Making judgements
Through open discussion and classroom debate during lectures, the course aims to develop a critical and independent perspective in analyzing the main theoretical models and empirical evidence related to the psychobiology of behavioral disorders, encouraging the personal formulation of interpretative hypotheses and theoretical solutions.

Communication skills
The examination format, which involves writing short essays in response to open-ended questions on the main topics of the course, is designed to strengthen students' ability to communicate complex concepts related to psychobiology, using appropriate scientific language and adapting their communication style to academic and

professional contexts.

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

Contents

Genetic, neurotransmitter and neuroanatomical aspects at the basis of the most common cognitive and behavioural disorders will be analysed.

Detailed program

Course Introduction - Methods of Psychobiological Research - Psychobiological Aspects of Major Depressive Disorder - Psychobiological Aspects of Anxiety Disorders - Psychobiological Components of Criminal Behavior and Sociopathy - Psychobiological Foundations of Addictions - Psychobiology of Healthy and Pathological Aging - Psychobiological Aspects of Nutrition and Related Psychological Disorders - Psychibiology of schizophrenia - Psychobiology of Consciousness - Assessment of the Psychobiological Foundations of Near-Death Experiences.

Prerequisites

It is highly suggested to take this course after genetics and biology, functional neuroanatomy, physiological psychology.

Teaching methods

The didactic modality will consist mainly in frontal lessons (approximately 50 hours), videos, and individual learning. During frontal lessons, a more interactive didactic modality will take place by stimulating open discussion and debate on the relevant topics of the course (approximately 8 hours).

Assessment methods

The exam format is written only. There are no ongoing (in-itinere) assessments.
The written test will be carried out on a computer in a computer lab on the day of the exam session and consists of 30 multiple-choice questions and two open-ended questions, which require an extensive and well-reasoned discussion of two topics covered in the course. The questions are aimed at ascertaining the actual acquisition of both theoretical knowledge and the ability to connect different aspects of psychobiology with one another. Answers to the open-ended questions will be evaluated in terms of correctness, argumentative ability, and critical depth in addressing the topics covered.

The grading will take into account the following criteria:
18: barely sufficient knowledge of the psychobiological foundations of behavioral disorders and their related neural correlates; minimal ability to recognize pathological cognitive, emotional, and behavioral functioning; poorly structured written exposition, with imprecise use of scientific language.
19-22: sufficient knowledge of the fundamental content relating to the interactions between neurobiological aspects and psychopathology, with some uncertainties in applying the concepts; still limited ability to critically analyze the biological and environmental components; superficial knowledge of the scientific articles on the syllabus. Simple written exposition, with acceptable but not always rigorous use of specific terminology.
23-26: fairly good to good knowledge of the topics; fairly good to good ability to critically evaluate the origin of dysfunctional behaviors, including through the analysis of the scientific articles on the syllabus; independence of judgment still developing; clear written exposition, with appropriate use of scientific language.
27-30: very good to excellent knowledge of the course topics, including the scientific articles on the syllabus; good to excellent critical ability and well-developed independence of judgment, with personal elaboration of interpretive hypotheses; effective written exposition, with scientific language appropriate to the academic context.
30 cum laude: fully adequate and thorough knowledge of the course topics, also thanks to the autonomous and critical use of up-to-date scientific sources; full command in applying theoretical models and critically evaluating empirical evidence; original and autonomous elaboration of interpretive hypotheses and theoretical solutions; excellent command of scientific language and communicative ability, fully appropriate to the academic and professional context.

Textbooks and Reading Materials

- Psicobiologia del comportamento normale e patologico. Papagno C. & Gallace A. (a cura di, 2014). Il Mulino: Bologna.
- Neuroscienze per la Psicologia clinica. Elisabetta Mundo. Cortina Editore.
  In addition to the required textbooks, a substantial body of supplementary teaching materials will be provided throughout the course, including scientific articles, lecture slides, and other in-depth learning resources. These materials will constitute an integral part of the course content and will contribute to students' preparation for the final examination.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING