UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Cognitive Development

2122-1-F5105P004

Learning area

Applied Experimental Psychological Sciences

Learning objectives

Knowledge and understanding

- Theories and methods in cognitive development
- The developmental cognitive neuroscience approach to the study of the human mind
- Developmental change from infancy to adolescence across a variety of cognitive domains

Applying knowledge and understanding

- Empirical questions, methods and limitations of research in cognitive development
- Evaluation of research outcomes and understanding of how empirical evidence and theories of cognitive development can inform each other

Contents

This course is aimed at providing an understanding of how children's cognitive processes develop from early infancy to adolescence across a variety of cognitive domains. State-of-the-art research on cognitive development will be illustrated and discussed in relation to contemporary and more traditional views. The class will focus on how attention, perception, memory and mentalizing abilities change over time, and on the neurobiological mechanisms at the basis of these developmental changes.

Detailed program

- Theoretical approaches to developmental change: cognitivism, nativism, neuroconstructivism
- Behavioral and electrophysiological research methods in cognitive development
- Development of attentional, perceptual and memory processes
- Development of object and numerical knowledge
- Origins and development of the social brain.
- The neuroconstructivist approach to the study of atypical development

Prerequisites

A good knowledge of the basis of developmental psychology enables a more informed use of the course contents. Students lacking such basic knowledge are encouraged to ask for a list of basic references.

Teaching methods

The course will consist of lessons, classwork, discussion on ongoing data and research articles, group works and practical activities in the Bicocca baby labs. All course material (e.g., slides, readings) are made available on the e-learning website of the course, so that also non-attending students can use it.

Lessons will be held in presence, unless further COVID-19 related restrictions are imposed.

Assessment methods

The exam will consist of multiple choice questions and open-ended questions on the course topics (with optional oral examination). The questions are aimed at verifying the effective acquisition of both theoretical knowledge and

research methods in the field of cognitive development. For the open-ended questions, the answers will be evaluated in terms of correctness, argumentative capacity, synthesis, and the ability to form links among the different areas of cognitive development.

For students attending lessons an ad hoc examination will be offered. This will consist in a written mid-term exam (multiple choice questions and open-ended questions, 30% of the final grade), a written end-term exam (multiple choice questions and open-ended questions, 50% of the final grade) and in a presentation of a research article in the field of cognitive development (20% of the grade). For the mid-term and end-term exams the questions are aimed at verifying the effective acquisition of both theoretical knowledge and research methods in the field of cognitive development; the answers of the open questions will be evaluated in terms of correctness, argumentative capacity, synthesis, and the ability to form links among the different areas of cognitive development. The presentation of the research article will be evaluate in terms of knowledge of the background literature, the correctness and argumentative capacity to report the aim, methods and results, and the ability to link the findings of the paper to the contents of the course.

Textbooks and Reading Materials

The bibliography will be provided at the beginning of the course and published in the course web-site.