

# COURSE DETAIL

## COGNITION, BRAIN AND BEHAVIOR: MULTISENSORY INTEGRATION

**Country**

Italy

**Host Institution**

University of Bologna

**Program(s)**

University of Bologna

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Psychology

**UCEAP Course Number**

183

**UCEAP Course Suffix****UCEAP Official Title**

COGNITION, BRAIN AND BEHAVIOR: MULTISENSORY INTEGRATION

**UCEAP Transcript Title**

COGNITN BRAIN BHVOR

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## **Course Description**

This course is part of the Laurea Magistrale degree program and is intended for advanced level students. Enrollment is by permission of the instructor.

This course provides students with the advanced knowledge of the mechanisms underlying perception and multisensory integration. Students are able to understand the perceptual and behavioral consequences of multisensory integration and the key determinants of these intersensory bindings: the role of attention on cross-modal perception and multisensory integration; the multisensory brain's representation of the body and of peripersonal space and the cortical plasticity across sensory modalities and the effects of sensory deprivation.

The course describes and evaluates the results of recent research on multisensory integration. First, the mechanisms underlying multisensory integration are outlined. It then examines the perception of multisensory events, the advantages afforded by the ability to combine different sensory modalities and the key determinants of intersensory interactions. Another key question addressed is how multisensory interactions are linked to and modulated by attention, specifically considering the latest evidence assessing the role of exogenous and endogenous attentional mechanisms on cross-modal processes. In addition, there is a focus on recent research concerning how multisensory information is used to create multiple spatial representations of our body parts and of the spaces within which they can act. We see how these representations that are used to guide body movements through space show a considerable degree of plasticity. Finally, we consider how the cortical system for perception may become radically reorganized after sensory deprivation and evaluate this surprising degree of cross-modal plasticity.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

B8886,95700

### **Host Institution Course Title**

**Host Institution Course Details**

<https://www.unibo.it/en/study/course-units-transferable-skills-moocs/course-uni...>

**Host Institution Campus**

BOLOGNA

**Host Institution Faculty**

**Host Institution Degree**

LM in SEMIOTICS

**Host Institution Department**

PHILOSOPHY

**Course Last Reviewed**

2025-2026

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