



## COURSE UNIT INFORMATION SHEET (*SYLLABUS*)

2023/2024

### Study Programme: Master in Cognitive and Social Psychology

<b>Name</b> Cognitive Neuroscience of Reading
<b>Teaching staff</b> (Also indicate the Professor in charge) Tânia Fernandes (in charge); Susana Araújo; Mariona Pascual
<b>Creditação (ECTS)</b> 6
<b>Functioning</b> 1st year of the master, 1º semester: 4 hours per week
<b>Learning goals</b> <ol style="list-style-type: none"><li>1. To know in a reflexive manner de current cognitive research in the area of reading and visual word recognition.</li><li>2. To analyze and to interpret the results of scientific research with experimental techniques, both behavioral and neuroimaging, in the area of reading.</li><li>3. To plan autonomously research in cognitive sciences, specifically in cognitive neurosciences and psychology, focused in the study pf the neurocognitive processes involved in visual word recognition.</li></ol>
<b>Skills to be developed</b> <ol style="list-style-type: none"><li>1. Advanced skills of planning, implementation, and critical analysis of neurocognitive research in the domain of reading.</li><li>2. Applied skills of research and adoption of experimental paradigms used in this cognitive domain.</li><li>3. Skills of interpretation of experimental results grounded on current theories and of critical analysis of contrasting theories in the domain of reading</li></ol>
<b>Prerequisites</b> (precedences) * N/A
<b>Contents</b> <ol style="list-style-type: none"><li>1. Introduction, concept of modularity and of emergence of novel cognitive systems.</li><li>2. The influence of culture in cognitive system at macro and at micro levels</li><li>3. Neurocogniitve methods of research in visual word recognition.</li><li>4. Neurocognitive models of visual word recognition.</li><li>5. The neural circuitry of reading in fluent readers and its development in neurotypical readers.</li><li>6. Developmental dyslexia and its neurocogniitve profile.</li><li>7. The role of motor action in learning to read.</li><li>8. The impact of reading in cognitive systems of oral language and visual object recognition.</li><li>9. Reading in blind individuals.</li></ol>



### References

Kemmer, D. (2015). Cognitive neuroscience of language. Psychology Press.

Dehaene, S. (2009). Reading in the brain: The new science of how we read. Penguin.

Putnam, A. L., Sungkhasettee, V. W., & Roediger, H. L. (2016). Optimizing learning in college: tips from cognitive psychology. *Perspectives on Psychological Science*, 11(5), 652-660. <https://doi.org/10.1177/1745691616645770>

Spapé, M., van Steenbergen, Verdonshot, R., & van Dantzig, S. (2014). The e-primer: an introduction to creating psychological experiments in e-prime. Leiden University Press.

Specific references will be given along the semester through e-learning platform.

### Teaching Methods

Theoretical classes: expository with presentation and discussion with the students of references regarding the topic (available at e-learning in the previous week before the class).

Practical classes: Hands-on exercises about the different stages of a neurocognitive research in reading.

In the case of any situation that impedes classes to occur in-person, classes will occur via zoom, while keeping the UC functioning unchangeable (equivalent schedule, assessment, and components).

### Evaluation Regimes (Geral and/or Alternative)

Approval in this course will imply three components (all COMPULSORY) of evaluation,

The final grade corresponds to the sum of the partial grades.

The characteristics of the components and the evaluation criteria will be available in classes and in the webpage of this course in the e-learning platform.

### Evaluation Elements (Dates due, weights, minimum required grades)

(a) Individual written essays along the semester (50%).

(b) Individual work in class (25%)

(c) Group work relative to a research with e-prime (25%)

The specific characteristics of the works and evaluation criteria will be available in classes and in the e-learning page of this course.

### Rules for grade improvement

Due to the nature of the evaluation elements, only component (a) can be improved.

### Rules for students having previously failed the course unit \*

Students that have previously attended the course, who had a score above 8.5 out of 20 on component (b) and (c) in the academic year immediately before the present one can keep these scores. Component (a) is the same as for the other students.

### Requirements on attendance and punctuality\*

Approval is conditional to participation in 80% of practical classes.

### Rules for special students



(workers, elite athletes, student body leaders, military, fathers/mothers, with special needs) \*

N/A (there is no alternative evaluation of any evaluation component).

### **Language of instruction**

Portuguese and English (except for the bibliography that is mostly in English).

### **Disciplinary violations and penalties**

According to the Evaluation of Learning Regulation of the Faculty of Psychology of the University of Lisbon, the following behaviors are considered as disciplinary offenses subject to disciplinary action:

- a) To use or attempt to use materials, information, notes, study resources or other objects and equipment not authorized in academic exercises;
- b) To help or try to help a colleague in committing a disciplinary offense;
- c) To submit the same written work for evaluation in different course units without permission from the instructors, even if with minor changes;
- d) To present someone else's work as one's own;
- e) To forge, or change without permission from the author, any information or citation in an academic work;
- f) To interfere, change or attempt to change grades;
- g) To try to prevent or interfere with the proper functioning of classes, research or other academic activities;
- h) To make false accusations regarding instructors, governance bodies, other students or non-teaching staff of the FPUL;
- i) To falsify signatures in attendance sheets, documents relating to evaluation elements or in any official document relating to an academic process or status.

Disciplinary offenses committed in any assessment element can lead to its annulment, and must be reported to the Pedagogical Council or, considering their gravity and repetition, may lead to other penalties, to be determined by the Rector of the Universidade de Lisboa.

\* If applicable