



COURSE UNIT INFORMATION SHEET (SYLLABUS)

2021/2022

Name Thought and Language
Teaching staff Mário Boto Ferreira (coordinator) ; Paulo Ventura ; Leonel Garcia-Marques
ECTS 6
Functioning Four hours per week: One theoretical lesson (2 hours) and one applied lesson (2 hours)
Learning goals <p>Thought and Language is an introduction to the main research themes in each one of these two domains. With respect to thought, the goal is to contrast descriptive and normative models of thought, reasoning, judgment and decision-making. Specifically, we will study how people reason and make decisions in their daily lives and how these decisions differ from normative models of inductive and deductive judgment and decision-making.</p> <p>With respect to Language, the main goal is to provide an integrated view of the cognitive processes underlying four crucial language domains: speech recognition; reading (word recognition) and their interactions; speech production and writing (production of written language).</p>



Skills to be developed

In the end of the course students should be able to: Thought:

1. Demonstrate an articulated comprehension of the psychological processes underlying thought, judgment and decision-making as well as understand when and how these processes may lead to (more or less) calibrated judgments. Analyze and compare different theories of reasoning, judgment and decision-making.

Language:

2. Demonstrate an articulated comprehension of the psychological processes underlying language recognition and production of language; understand not only the consensual theoretical arguments but also the contrasting theories about the different aspects of language.

Prerequisites (precedences) *

Contents

1. Inductive reasoning and models of Judgment and decision-making

- 1.1 Summary of past research on inductive reasoning: formal models of decision-making.
- 1.2. Bounded rationality as a first reply to the limitations of formal models of decision-making.
- 1.3. The research program on Heuristics and biases advanced by Tversky and Kahneman as a new approach to judgment under uncertainty.
- 1.4. Structure and function of the heuristics: main limitations and alternative approaches

2. Deductive reasoning and Mental Models

- 2.1. Types of deductive reasoning
- 2.2. Systematic and characteristic difficulties in deductive reasoning presented by lay-people
Mental models
- 2.3. Logical errors in deductive reasoning

3. Speech Recognition

- 3.1. The segmentation of the continuous acoustic stream
- 3.2. Intermediary unities for lexical access
- 3.3. Models of speech recognition

4. Recognition of written language

- 4.1. The role of visual information in lexical access in reading. Intermediary unities for lexical access
- 4.2. The role of phonology in lexical access. Models of word recognition in reading



5. Speech Production

- 5.1. Lexicalization
- 5.2. Phonological encoding
- 5.3. Contrast between strictly serial models, interactive models and cascade models

Writing (production of written language)

- 6.1. Processes underlying writing
- 6.2. Theoretical models
- 6.3. The role of working memory

Bibliography

Thought

- Plous, S. (1993). *The psychology of judgment and decision making*. McGraw-Hill.
Baron, J. (2008). Logic. In J. Baron, *Thinking and deciding* (pp. 77-98). Cambridge University press.

Language

- Ferrand, L. (2011). *Psicologia cognitiva da leitura* [Cognitive psychology of reading]. Instituto Piaget Editora.

Harley, T. (2007). *The psychology of language: from data to theory*. Psychology Press

- Spinelli, E., & Ferrand, L. (2009). *Psicologia da linguagem* [Psychology of language]. Instituto Piaget.

Other references will be provided during the course

Teaching methods

Theoretical lessons will provide a general overview of the main themes of the UC (please see "Contents") as well as a conceptual framework for the theoretical-practical lessons.

In the practical lessons there will be presented central issues of the Contents of the UC (based on research literature previously provided to the students) to be discussed by the students under the professor's coordination. Students will also elaborate (in groups of 4 to 5) written conceptual reflections on these issues to be handed in to the professors (according to a calendar to be defined in the beginning of the semester)

Evaluation Regimes (General and/or Alternative)



General regime

The UC evaluation includes group assignments (to be hand in during the semester), one final exam and the participation in two experiments related to the main themes of the UC (see evaluation elements for details)

In the case of a second wave of the COVID-19 pandemic, an alternative evaluation plan will take place, using the e-learning platform (e.g., to hand in all assignments) and replacing the two tests by a final exam.

Evaluation Elements

Group assignments (max. 5 students per group; 50%)*. Groups are required to write short essays about course themes discussed during classes (max. 30 lines, excluding references, 2,5 margins, 1,5 space between lines) to be delivered and presented regularly during the semester on dates to be set at the beginning of the school year.

Exam (multiple choice questions) (50%)**

Students' participation in two experiments connected to the Topics of the UC (dates to be announced in the beginning of the semester)***.

*Although the group assignments are mandatory, the final grade of this evaluation element will be based on the average of the 4 best assignments (two on the Language topics and two on the Thought topics).

** Students need to obtain a passing grade (i.e., mean score of the two tests $\geq 9,5$) in order to be approved in the course.

***For students who do not participate in the experiments the evaluation of the group assignments will be based on the average of all the evaluations obtained in the group assignments made during the semester.

Rules for grade improvement

Students who have completed the course in 2019-2020 and want to improve their final grade, may take this year's exam. The Exam grade will be averaged with the grade obtained in last year groups assignments. Alternatively, students may repeat all the assignments and exam of the current year. Students who enroll in the course for the first time may repeat the exam (2nd term).



Rules for students having previously failed the course unit *

Students who have done the group assignments in 2019-2020 do not need to hand in new assignments (i.e., last year's assignments grade will be used for this year's evaluation together with this year's exam grade).

Requirements on attendance and punctuality

Students' presences in the practical classes will be registered. FPUL regulation concerning presence in classes will be followed

Rules for special students

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

Special students are required to complete the aforementioned assignments and exam. However, they are not required to attend classes (although they are encouraged to do so if they can).

Language of instruction

Portuguese

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 University of Lisbon.

* If applicable