

**Superior Cognitive Functions: Thought**

Code: 101714  
ECTS Credits: 6

Degree	Type	Year	Semester
2500893 Speech therapy	OT	4	1

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

## Contact

Name: Joaquín T. Limonero García  
Email: Joaquín.Limonero@uab.cat

## Use of Languages

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

## Teachers

María José Gómez Romero

## Prerequisites

There are no prerequisites but it is advisable for students to have a good reading level in English and to have passed the first-year subject Introduction to Scientific Methodology and Psychological Processes.

## Objectives and Contextualisation

This subject explores the knowledge of one of the most important cognitive functions: human thought and the influence that it exerts on language. This influence occurs both in everyday situations and in special situations (stress, accidents, etc.).

In addition, cognitive enhancement procedures and their possible effects on the re-education of speech therapy are also presented.

At the end of the course the student should be able to do the following:

- Know and describe the main processes involved in thinking.
- Identify and analyse the effects of emotional and cognitive factors on the processes of thinking, reasoning and decision making.
- Know the effects that certain diseases or accidents can have on processes of thought and their influence on language.
- Describe and apply different strategies to enhance cognitive functions in general, and language in particular. The role of speech therapy in these aspects is analysed.
- Critically interpret the results of research into the processes involved in thought and its influence on language.

## Competences

- Analyse and synthesise information.

- Demonstrate an understanding and correct use of the terminology and methodology of speech-therapy research.
- Evaluate the scientific production that supports speech therapists professional development.
- Express oneself fluently, coherently and suitably following established norms, both orally and in writing.
- Integrate the foundations of biology (anatomy and physiology), psychology (evolutionary processes and development), language and teaching as these relate to speech-therapy intervention in communication, language, speech, hearing, voice and non-verbal oral functions.
- Organise and plan with the aim of establishing a plan for development within a set period.
- Understand, integrate and relate new knowledge deriving from autonomous learning.
- Use the exploratory techniques and instruments pertaining to the profession, and register, synthesise and interpret the data provided by integrating this into an overall information set.

## Learning Outcomes

1. Analyse and synthesise.
2. Consider designs that are suitable for practice on different processes and phenomena involved in memory and thinking.
3. Correctly use the terminology and methodology of research into higher cognitive functions in the field of speech therapy
4. Critically interpret the results of evaluations conducted, relating these to disorders of thought and memory and their effect on language.
5. Critically interpret the results of research into the processes involved in thought and memory.
6. Describe the different thought processes involved in thinking.
7. Describe the main processes and systems involved in memory and thinking.
8. Describe the main techniques and assessment tools of thought and memory.
9. Explain the effects of certain diseases or brain traumas on memory and thought processes.
10. Express oneself fluently, coherently and suitably following established norms, both orally and in writing.
11. Organise and plan with the aim of establishing a plan for development within a set period.
12. Prepare and write reports based on the results of experiments into thinking and memory.
13. Relate emotional and rational factors with the processes of reasoning and decision-making.
14. Understand, integrate and relate new knowledge deriving from autonomous learning.

## Content

The syllabus of the subject Superior Cognitive Functions: Thought is structured around the following themes which also include seminars and practical classes

### Theme 1: Conceptual aspects of Thinking

- Types of thinking. How thinking works: cognitive strategies.
- Acquisition and development of cognitive functions (thinking) throughout the life span. Special situations: prematurity, normal and pathological ageing.
- How thinking works. Knowledge representation: concepts, schemas, scripts and cognitive maps.
- Considerations related to the clinical interview.

### Theme 2. Cognitive functions in specific situations

- Problem solving and decision-making in situations of uncertainty (Motivational conflicts, stressful situations).
- Effect of positive and negative mood states on cognitive functions.
- Effects of prematurity on development in general and on cognitive functions in particular.
- Brain Diseases: Stroke, Alzheimer's, Accidents and Traumatic brain injury.
- Considerations related to the clinical interview.

### Theme 3. Cognitive enhancement

- Facilitation of creative thinking (De Bono Method)

- Cognitive stimulation and reeducation: general and specific objectives, general considerations. The role of the speech therapist. Cognitive rehabilitation and speech therapy.
- Considerations related to the clinical interview.

## Methodology

### DIRECTED ACTIVITY

- Theoretical classes, practical and seminars
- Lectures with ICT support and debate in a large group
- Practical classes to discuss basic concepts through small exercises and gamification activities
- Seminars for discussion of cases or papers in small groups
- Workshops for proposals for intervention or rehabilitation
- Throughout the course, equal participation in class will be fostered.

### SUPERVISED ACTIVITY

- Individual tutoring with the teacher.
- Follow-up tutoring in small groups.
- Individual and group writing tasks
- Tutoring of work (individual or group) in person and/or online.

### AUTONOMOUS ACTIVITY

- Document search, reading and synthesis.
- Definition of search strategy in databases, close reading and preparation of synopses of the material read.
- Preparation of reports and public presentation of papers.
- Preparation of reports on individual or group practicals.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	22	0.88	6, 7, 12, 3, 9, 2, 13
Practical classes	6	0.24	1, 14, 6, 7, 8, 12, 3, 10, 4, 5, 11, 2
Seminars	8	0.32	14, 3, 10, 5, 11
Type: Supervised			
Group follow-up tutoring	8	0.32	1, 14, 10, 5, 11
Individualized tutoring	8	0.32	1, 14, 12, 10, 11
Type: Autonomous			
Autonomous activity	98	3.92	14, 8, 12, 3, 10, 4, 5, 11, 2

## Assessment

The competences of this subject will be evaluated by means of different evidences to be held in different weeks:

Evidence 1. Proposals for intervention or rehabilitation workshops: 20% (week 8)

Evidence 2. Written report on readings / seminars: 15% (week 11)

Evidence 3. Written reports of exposed works: 10% (week 15)

Evidence 4. Oral presentation of works: 15% (week 15)

Evidence 5. A written test (multiple choice test): 40% (week 18)

#### ASSESSMENT OF THE SUBJECT

It will be considered that a student has passed the subject if in the set of the 5 evidences he/she obtains a score equal or superior to 5, and at least in the evidence 5 (written test -multiple choice test) obtains a mark of 2. Those students who do NOT present all the evidences will NOT pass the subject, although the total score is equal or superior to 5.

Once the subject has been passed (grade  $\geq 5$ ), the final grade can not be improved through works or other activities.

A student who has presented evidences of learning with a weight equal to or greater than 4 points (40%) will be considered for evaluate.

Students who have not passed the course but in the continuous assessment have obtained a grade of 3.5 or higher but less than 5, can present to a new written test of the part not passed. To do this test or exam it is necessary that students have been previously evaluated in a set of activities, the weight of which equals a minimum of 2/3 of the total rating of the subject.

This new exam will consist of written questions corresponding to the evidence not approved and does not serve to improve the final score of the subject if a student has already approved it. The maximum score that can be obtained in the subject in this new exam is 5.

**COPYING OR PLAGIARISM:** According to Article 116, Section 10 Regulations UAB, if the student performs any irregularity (copy, plagiarism, impersonation or forgery of signature on the face-to-face attendance list and / or other dishonest academic conduct...) that could lead to a significant variation of the qualification of an act of evaluation, will be rated with 0 this act of evaluation. If there are several irregularities in the evaluation acts of the same subject the final mark will be 0.

"N.B. The proposed teaching and assessment methodologies may experience some modifications as a result of the restrictions on face-to-face learning imposed by the health authorities. The teaching staff will use the Moodle classroom or the usual communication channel to specify whether the different directed and assessment activities are to be carried out on site or online, as instructed by the Faculty".

#### Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Ev 1. Intervention workshop	20	0	0	8, 3, 10, 4, 11, 2
Ev 2. Report Seminars / discussion of readings	15	0	0	1, 14, 12, 3, 10, 4, 5, 2
Ev 3. Written report of the oral presentation	10	0	0	1, 14, 12, 3, 10, 5, 11, 2
Ev 4. Oral presentation of works	15	0	0	1, 14, 8, 12, 3, 10, 4, 5, 11, 2

## Bibliography

### Basic bibliography

Ballesteros, S. (2016). (ed.). *Factores protectores del envejecimiento cognitivo*. Madrid: UNED.

Da Silva Rodrigues, C.I. (2018). *Neuropsicología del envejecimiento*. México: Editorial El Manual Moderno.

de Bono, E. (1997). *Aprende a pensar por ti mismo*. Barcelona: Paidós.

Fernández Abascal, E. (2009) (Ed.). *Emociones positivas*. Madrid: Pirámide.

Fernández-Castro, J., Pintanel, M. i Chamarro, A. (2005). *Manual de psicología del pensamiento*. Bellaterra: UAB Servei de publicacions.

Fernández-Berrocal, P. i Santamaría, C. (2001) (Eds.). *Manual práctico de psicología del pensamiento*. Barcelona: Ariel.

Martínez Rodríguez, T. (2002). *Estimulación cognitiva: Guía y material para la estimulación*. Oviedo: Gobierno del Principado de Asturias. Consejería de Asuntos Sociales.

Mayer, E.E. (1986) *Pensamiento, resolución de problemas y cognición*. Barcelona: Paidós.

### Complementary bibliography

Aguado, L. (2005). *Emoción, afecto y motivación*. Madrid: Alianza Editorial.

Autores Varios. (2009). *Guía de Práctica Clínica de Intervenciones Psicosociales en el Trastorno Mental Grave*. Madrid: Ministerio de Ciencia e Innovación

Ayuso, M. C. (1997). *Razonamiento y racionalidad*. Barcelona: Paidós.

Carretero, M., Almaraz, J. i Fernández-Berrocal, P. (1995). *Razonamiento y comprensión*. Madrid: Paidós.

Carretero, M i García-Madruga, J. A. (1989). *Lecturas de psicología del pensamiento. Razonamiento, solución de problemas y desarrollo cognitivo*. Madrid: Alianza.

Garnham, A. I Oakill, J. (1994). *Thinking and reasoning. Traducció: Manual de Psicología del Pensamiento*. Madrid: Paidós, 1996.

Junqué, C., Bruna, O., Mataró, M. (1998). *Traumatismos craneoencefálicos. Un enfoque desde la Neuropsicología y la Logopedia*. Barcelona: Elsevier-Masson.

Kaufman, J.C. y Baer, J. (2005). *Creativity across domains: faces of the muse*. Mahwah, New Jersey: Lawrence Erlbaum

Morrison, V. i Bennet, P. (2008). *Psicología de la Salud*. Madrid: Pearson, Capítols: 1-7, 17 i 18

Throughout the course, the teacher will provide another specific bibliography of some of the topics and seminars that are discussed in class.