

**Psychological Processes: Memory**

Code: 102604  
ECTS Credits: 6

Degree	Type	Year	Semester
2502443 Psychology	OB	2	2

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**

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**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**

Oriol Granados Bartrons  
Rocio Pina Rios  
Judit Castellà Mate  
Eva Brunat Parra

**Prerequisites**

It is convenient to have some reading skills in English and to have passed the subjects on psychological processes from previous semesters.

**Objectives and Contextualisation**

In previous semesters, different psychological processes have been studied, including perception, attention, motivation, emotion and learning. In this subject, the systems, processes and types of representation of human memory and their relationship with the processes studied previously are studied.

Therefore, our aim is that at the end of the subject the student will be able to:

1. To understand the functions of memory in human behaviour, its importance, the basic mechanisms of its functioning and the factors that can affect memory.
2. To recognize different systems, processes and forms of representation involved in memory.
3. To relate the functioning of memory with other psychological processes.
4. To identify the implications of memory mechanisms in some areas of daily life such as education, advertising, witness memory and aging.
5. To know some practical applications that can improve mnemonic processes: mnemonic rules and factors that improve the processes of coding, storage and retrieval of information.

## Competences

- Apply knowledge, skills and acquired values critically, reflexively and creatively.
- Distinguish and relate the different focuses and theoretical traditions that have contributed to the historical development of psychology as well as its influence on the production of knowledge and professional practice.
- Distinguish between the design of research, procedures and techniques to evaluate hypotheses, contrast them and interpret the results.
- Identify, describe and relate the structures and processes involved in basic psychological functions.
- Prepare and write technical reports on the results of the evaluation, research or services requested.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Take decisions in a critical manner about the different research methods in psychology, their application and the interpretation of the results deriving from them.
- Use different ICTs for different purposes.
- Work in a team.

## Learning Outcomes

1. Analyse and describe the processes for problem-solving and decision-making.
2. Analyse the results of experiments on human memory.
3. Apply knowledge, skills and acquired values critically, reflexively and creatively.
4. Clarify the processes that take place during the codification and recovery of information in memory.
5. Describe each of the different systems that make up human memory and the relationship between them.
6. Design experiments in human memory.
7. Identify the main characteristics of the theoretical focuses in the study of associative learning, memory and psycholinguistics and distinguish between texts by different authors in agreement with them.
8. Relate the results of experiments in learning, conditioning and human memory with theoretical concepts of each of these processes.
9. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
10. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
11. Submit a report on the development of skills and abilities developed in solving specific problems.
12. Use different ICTs for different purposes.
13. Work in a team.
14. Write reports using the results of experiments on human memory.

## Content

Unit 1. Memory: defining aspects.

Topic 1. Definition of memory.

Definition of memory. Memory within cognitive processes. Main aspects of memory performance. Unitary memory or memory systems. The phases of memory.

Topic 2. Measurement of memory.

Measurement of memory and its different parameters. The measurement of memory through tests. Direct measures and indirect measures.

Topic 3. Traditions in the study of memory.

Ebbinghaus and Bartlett. The cognitive point of view about memory.

Topic 4. Factors and variables that affect the mnemonic process.

Individual factors. Temporary factors. Factors related to the material. Factors related to strategies. Contextual factors. Mnemonic strategies: mnemonics.

Unit 2. Structures and processes of memory.

Topic 5. Memory systems.

The pioneering works. Multi-store models. The sensory memory. Short-term memory Working memory (working memory). Long term memory.

Topic 6. The processes of memory.

Structural models versus procedural models. Encoding and registration processes. Recovery processes.

Topic 7. Forgetting.

Classical theories about forgetting: repression, disuse and interference. Cognitive point of view about forgetting. Schacter's point of view

Unit 3. The representation of the information in the memory.

Topic 8. Episodic memory and semantic memory.

Differences between episodic memory and semantic memory. The models or theories of semantic memory. Network models. Feature models.

Topic 9. The mental representation.

Concepts and schemes. The mental image as mental representation. The dual theory of Paivio. Debate on mental representations.

Unit 4. Other issues of research on memory: current fields of application.

Topic 10. Applications of the psychology of memory.

Everyday memory (memory for faces, memory of scenes, autobiographical memory). The application of memory in the judicial context: accuracy of the memory of witnesses. Memory in the advertising context. Memory and comprehension, memory and reading. Memory in the old age. Development and enhancement of memory.

## **Methodology**

### **DIRECTED ACTIVITIES**

Theoretical classes, practices and seminars (31%)

- a) Lectures with multimedia support and debate in a large group
- b) Practical classes to discuss basic concepts through small exercises and experiments.
- c) Seminars to discuss cases or articles in a small group

### **SUPERVISED ACTIVITIES**

Tutorials (5%)

Follow-up tutorials and tutorial work (individual or group) in person or virtual.

### **AUTONOMOUS ACTIVITIES**

Search, reading and synthesis of documentation (12%)

Definition of the search strategy in databases, comprehensive reading and preparation of synopsis of the material read

Preparation of reports and public presentation of works (24%)

Writing of practice reports, individual or group

Study (24%)

Elaboration of schemes, conceptual maps and summaries.

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.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
D1. Master classes	33	1.32	1, 4, 5, 7
D2. Discussion seminars	2	0.08	3, 8
D3. Practice work	10	0.4	3, 11, 13, 12
Type: Supervised			
S1. Tutorial (life / online)	7.5	0.3	1, 4, 5, 7, 8
Type: Autonomous			
A1. Autonomous work	93.5	3.74	1, 3, 4, 5, 7, 11, 8, 13, 12

## Assessment

The competences of this subject will be evaluated through different evidences. From each of the evidences, its weight is indicated:

- 1) Evidence 1: written report (practice 1) (15% of the final grade).
- 2) Evidence 2: written multi-choice test (topic 1 to 5) (35% of the final grade)
- 3) Evidence 3: oral presentation of articles (15% of the final grade).
- 4) Evidence 4: written multi-choice test (topic 6 to 10) (35% of the final grade).
- 5) Evidence 5: additional work (optional) (10% to be added to the final grade)

TABLE OF EVIDENCES:

Code	Name	Weight	Format	Autorship	Way	Week
evidence			(oral, written or both)	(individual, group or both)	(in person, virtual or both)	
EV1	Written report 1	15%	written	individual	in person	5/6*
EV2	Multi-choice test 1	35%	written	individual	in person	1st assessment period
EV3	Oral presentation of	15%	oral	group	in person	13/14*

EV4	Multi-choice test 2	35%	written	individual	in person	2ond assessment period
EV5	Additional work	10%	written	individual	both	15
REC	Re-evaluation		written	individual	in person	19

\* depending on practice group

Minimum compliance will be established from which the student will be able to pass the course (five as a minimum grade).

The student who, at the end of the course, has not delivered 40% of the percentage of the evidences of evaluation (excluding evidence number 5) will obtain the grade of NOT EVALUABLE.

Once the student has exceeded this 40% of the percentage in the presentation of the evidence of evaluation, he obtains a different grade of NOT EVALUABLE.

To pass it is necessary that the mean of evidences 2 and 4 (written tests) give a minimum of 5. The grades obtained in evidences 1 and 3 (practices) will not compute until they have achieved this grade of at least 5 in the written tests (EV2 and EV4). Once this criterion is reached, it will be necessary that the calculation of percentages of the different evidences (EV1, EV2, EV3 and EV4) give a minimum of 5 to be able to approve. There is the possibility of making an optional evidence to raise the grade (evidence 5). The grade obtained in this evidence will only be applied in the case of a note equal to or greater than 5 once the final grade of all the compulsory evidences has been obtained, and also when this evidence obtains a minimum grade of 5 (pass). This means that all jobs with a grade lower than 5 can not add any additional points. People who intend to do the optional work should send a detailed proposal describing the methodology, the sample and the materials that will be used. This detailed proposal should be sent to the responsible teacher (josep.baques@uab.cat) until March 21 (deadline). Then theresponsibleteacher will let them know if the proposal is accepted or if they have to make changes.

Resit will be compulsory for students who:

- have not reach an average of 5 in evidences 2 and 4
- the grade obtained after the application of the percentages of the four compulsory evidences (EV1, EV2, EV3 and EV4) is less than 5
- have made evidence with a weight equal to or greater than 2/3 of the total score.

In case of having to go to resit, the student can reevaluate the exam (EV2 and/or EV4) in which he has not reached the minimum of 5.

The student of second degree enrollment or more may choose between doing a continuous assessment or a single final synthesis test. In case of a single final synthesis, students must inform the coordinator of the subject in the date of the evidence 2. The synthesis test is a single test and, therefore, has no possibility of re-evaluation. The synthesis test consists of 50 test questions and is carried out the same day as EV4.

Link to the evaluation norms of the faculty:

<https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html>

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
1. Written report from practice (EV1)	15%	0	0	2, 3, 6, 14, 11, 9, 8, 13, 12
2. Written multi-choice test (EV2)	35%	2	0.08	1, 4, 5, 7, 8
3. Oral presentation of articles (EV3)	15%	0	0	3, 10, 8, 13
4. Written multi-choice test (EV4)	35%	2	0.08	2, 4, 7, 8

## Bibliography

### Main Bibliography:

RUIZ-VARGAS, J.M. (2010). *Manual de Psicología de la memoria*. Madrid: Síntesis.

SAIZ, D., SAIZ, M. i BAQUES, J. (1996). *Psicología de la memoria. Manual de Prácticas*. Barcelona: Avesta.

### Further reading (Spanish):

Baddeley, A. (1982). *Su memoria: Cómo conocerla y dominarla*. Madrid: Debate, 1984.

Baddeley, A.D. (1998). *Memoria Humana. Teoría y práctica*. Madrid: McGraw Hill, 1999.

Baddeley, A.D., Eysenck, M.W. i Anderson, M.C. (2009). *Memoria*. Madrid: Alianza, 2010.

Mayor, J. & De Vega, M. (1992). *Memoria y representación*. Madrid: Alhambra.

Ruiz Rodríguez, R. M. (2003). *Las caras de la memoria*. Madrid: Pearson Educación, S.A.

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Sáiz, D. & Sáiz, M. (1989). *Una introducción a los estudios de la memoria*. Barcelona: Avesta.

Sáiz, D., Sáiz, M. & Baqués, J. (1996). *Psicología de la memoria: Manual de Prácticas*. Barcelona: Avesta.

Schacter, D.L. (1996). *En busca de la memoria. El cerebro, la mente y el pasado*. Barcelona. Ediciones B, 1999.

Schacter, D. L. (2003) *Los siete pecados de la memoria: la memoria es la clave de la inteligencia, ¿cómo puedes mejorarla?*. Barcelona: Ariel, S.A.

Sebastian, M<sup>a</sup> V. (1983). *Lecturas de Psicología de la memoria*. Madrid: Alianza Universidad Textos.

Smith, E.E. & Kosslyn, S.M (2009) *Procesos cognitivos. Modelos y bases neurales*. Madrid: Pearson-Prentice Hall.

### Further reading (English):

Baddeley, A. (2004). *Your memory: A user's guide*. Firefly Books Ltd.

Baddeley, A. (2009). *Memory*. Hove/New York: Psychology Press.

Baddley, A., Aggleton, J., Conway, M. (Eds) (2002). *Episodic Memory. New Directions in Research*. Oxford: Oxford Univ. Press.

Baddeley, A.D., Kopleman, M. D., Wilson, B. A. (2002). *The Handbook of Memory Disorders*. Second Edition. Chichester (UK): John Wiley and Sons. Ltd.

Berrios, G. E., Hodges, J. et al. (2000). *Memory disorders in psychiatric practice*. New York: Cambridge University Press.

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- Miyake, A., Shah, P. (1999). *Models of working memory: Mechanisms of active maintenance and executive control*. Cambridge: Cambridge University Press.
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- Parkin, A. (1999). *Memory: a guide for professionals*. Chichester: John Wiley & Sons.
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- Saito, A. et al (ed.) (2000). *Bartlett, culture and cognition*. Philadelphia, PA, US: Psychology Press/Taylor & Francis.
- Tulving, E. (ed) et al. (2000). *Memory, consciousness, and the brain: The Tallinn Conference*. Philadelphia, PA, US: Psychology Press/Taylor & Francis.
- Tulving, E. & Craik, F. I. M. (eds.) (2000). *The Oxford handbook of memory*. New York: Oxford University Press.

INTERNET:

- Chapter from *Redes* (D. Schacter interview).

<https://www.youtube.com/watch?v=reZ4YrgjuRo>

- Vídeo "El hombre con siete segundos de memoria", about Clive Wearing.

<https://www.youtube.com/watch?v=8suclojMp0k>