

Introduction to Scientific Methodology and Basic Psychological Processes

Code: 107883

Credits: 6

2026/2027

Degree programme	Type	Course
Speech therapy	FB	1

Contact lecturer

Name : Anna Jordana Casas

Email : anna.jordana.casas@uab.cat

Teaching staff

Jaume Vives Brosa

Anna Jordana Casas

José Tomás Mejías Riquelme

Group languages

You can consult this information at the [end](#) of the document.

Prerequisites

Not required

Objectives

This subject must train students in the basics of scientific documentation and methodology, ensuring that they are competent to demonstrate that they understand and make correct use of the terminology and methodology of scientific research. Likewise, they must also be able to identify the fundamental contributions of scientific productions linked to the psychological processes on which professional development in speech therapy is based.

On the other hand, students must also come to understand, integrate and relate new knowledge about the basic cognitive processes resulting from autonomous learning. They must also be able to analyse and summarize the most relevant information on cognitive processes that they receive from different teaching methodologies, using communication and information technologies when necessary. These competences must open up new and effective perspectives for action in the student's professional practice.

Learning outcomes

- KM13 (Identify the psychological and psycholinguistic foundations of speech therapy.) Identify the psychological and psycholinguistic foundations of speech therapy.
- KM14 (Identify the main psychological processes alongside their biological substrate and link them with the functions of human language.) Identify the main psychological processes alongside their biological substrate and link them with the functions of human language.
- KM15 (Describe the different psychological processes involved in the production and understanding of discourse and relate them.) Describe the different psychological processes involved in the production and understanding of discourse and relate them.
- SM09 (Analyse the results of a scientific study in the field of speech therapy.) Analyse the results of a scientific study in the field of speech therapy.
- SM11 (Use strategies specific to the scientific method to search for evidence in Speech Therapy.) Use strategies specific to the scientific method to search for evidence in Speech Therapy.

Contents

1. Scientific documentation

1.1. Literature search: PsycINFO, Medline and ISI-WoK (WoS and JCR)

1.2. Citation and referencing regulations

1.3. Software for bibliographic management

1.4. Structure of the scientific report

2. Principles of research methodology

2.1. Evidence-based practice

2.2. Quantitative and qualitative methodologies

2.3. Constructs: Operationalization and measurement

2.4. Types of variables

2.5. Overview of research methods, designs and techniques in Speech Therapy 2.6. Selection and Assignment Concepts

2.7. Introduction to Internal Validity Threats

2.8. Control techniques

2.9. Unifactorial experimental designs

3. Conditioning and Learning

3.1. Classical Conditioning: Fundamentals and Main Phenomena

3.2. Instrumental Conditioning: Fundamentals and Basic Procedures

3.3. Observational learning

4. Motivation: general characteristics

4.1. Physiological motivation

4.2. Extrinsic and intrinsic motivation

4.3. Cognitive motivation

5. Emotion

5.1. General characteristics

5.2. Components of the emotional response

5.3. Emotional processing

5.4. Emotion and Information Processing

6. Attention and Perception

6.1. What is attention?

6.2. Types of attention

6.3. Internal and external determinants

6.4. What is perception?

6.5. Perceptual organization

6.6. The senses

7. Memory

7.1. Memory and its functions

7.2. Sensory memory

7.3. Short-term memory (TCM)

7.4. Long-term Memory (LTM)

7.5. Oblivion

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Teaching face to face with small groups (seminars / practices).	24	0.96	KM13, KM14, KM15, SM09, SM11
Self-evaluation exercises, complementary readings and study of the contents of the subject	78.5	3.14	KM13, KM14, KM15, SM09, SM11
Tutorials of the activities developed from the protocols available on the virtual campus	12.5	0.5	KM13, KM14, SM09, SM11
Face to face and virtual teaching with big group	28.5	1.14	KM13, KM14, KM15

- Master classes with the support of electronic resources and debate with large groups
- Classes with small groups (seminars/practices)
- Online tutoring of the different activities that are continuously proposed in the virtual classroom throughout the course
- Self-assessment exercises
- Readings and complementary audiovisual material

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
EV1A-EV1J Reflexion exercises on the virtual campus referred to seminars 3 to 12	25%	2.5	0.1	KM13, KM14, KM15, SM09
EV2 First test on topics 1 to 4	40%	2	0.08	KM13, KM14, KM15, SM09, SM11
EV3 Second test on topics 5 to 7	35%	2	0.08	KM13, KM14, KM15, SM09

PASSING THE COURSE:

The course is considered passed when the total of the assessment evidences reaches 5.0.

Students who submit less than 40% of the evidences will receive the result "NOT ASSESSABLE".

Definition of a passing grade: In accordance with the Faculty's assessment guidelines, the definition of a passed subject under continuous assessment requires a minimum overall grade of 5.0 points (on a 0-10 scale). Furthermore, students must obtain a minimum grade of 4.0 points in each of the in-person assessment

tests that account for 20% or more of the continuous assessment grade. If these requirements, or any other specific course requirements, are not met, the maximum grade to be recorded in the academic transcript will be 4.5 points.

RETAKE EXAM:

Students will have the right to a reassessment test if they meet the following criteria:

- Have submitted at least 67% of the evidences.
- Have obtained a final weighted score between 3.5 and 4.8 points.

The reassessment test will evaluate all the competencies that did not achieve satisfactory results. Each student will be informed of the specific contents they must recover.

The result of the retake test can only be "Pass" or "Fail". Students who achieve a "Pass" will receive a final grade of 5.0.

In all cases, the current Assessment Guidelines will apply:

https://www.uab.cat/doc/DOC_PautesAvaluacio_2024_2025

EXAM TRANSLATION:

Exams can only be translated into CATALAN or SPANISH in exceptional cases (e.g., ERASMUS, SICUE, first academic year for students from outside Catalonia).

The translation of in-person assessment exams will be provided only if the requirements of Article 263 are met and the request is made electronically (e-form) before week 4 (more information on the Faculty website).

SINGLE ASSESSMENT:

Specific period (more info on the Faculty website) and via the corresponding form.

It will take place on the same day, at the same time and location as Evidence 2.

It will consist of three parts:

- a) A test of 12-14 questions involving reflection and/or case analysis related to the seminars.
- b) A multiple-choice synthesis test on topics 1 to 4.
- c) A multiple-choice test on topics 5 to 7.

Each part will carry the same weight as in the continuous assessment. The estimated duration is 3:30 h - 4 h.

Retake: The same reassessment process as continuous assessment will be applied.

FEEDBACK:

Feedback TypeEvidenceWeek

DIGITAL TOOL EV1 W4-W15

IN-CLASS EV2 W10

TUTORIAL EV3 W20

USE OF AI (restricted use):

In this course, the use of Artificial Intelligence (AI) technologies is allowed only for support tasks, such as bibliographic or information searches, text correction, or translations.

Students must clearly identify which parts were generated using AI tools, specify the tools used, and include a critical reflection on how they influenced the process and outcome of the activity.

Lack of transparency regarding AI use in this assessment activity will be considered a breach of academic integrity and may result in a partial or full penalty on the grade, or more severe sanctions in serious cases.

Bibliography

Basic Bibliography

Tema 1

Portell, M. i Vives, J. (2014). Introducció als dissenys experimentals, quasi-experimentals i ex post facto. Sèrie Materials #229. Bellaterra: Servei de Publicacions UAB.

Myers, G.D. (2011) Psicología. (9ª Ed.). Buenos Aires: Editorial Médica Panamericana, S.A. Bibliografía Complementaria

Tema 2

Domjan, M. (1998) Bases del aprendizaje y el condicionamiento. Jaen: del Lunar. Caps. 1, 4, 6 i 12.

Tema 3

Reeve, J. (1994) Motivación y Emoción. Madrid: McGraw-Hill.

Tema 4

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

Tema 5

Goldstein, B.E. (2009) Sensación y Percepción (6ª Ed). Madrid: Thomson Editores. Paraninfo. Luria, R.A. (1979) El Cerebro en Acción. Barcelona: Martínez Roca. Caps. I i II

Manning, S.A., i Rosentock, E.H. (1971) Elaboración de escalas de actitudes y psicofísica clásica. México: Trillas. Cap. 1.

Matlin, M.W., i Foley, H.J. (1996) Sensación y Percepción. México: Prentice Hall Hispanoamericana. Cap. 2

Tema 6

Ruiz-Vargas, JM (2010) Manual de Psicología de la Memoria. Madrid: Editorial Síntesis.

Software

Not required

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	1	Catalan	first semester	morning-mixed
(PLAB) Practical	111	Catalan	first	morning-mixed

laboratories			semester	
(PLAB) Practical laboratories	112	Catalan	first semester	morning-mixed
(PLAB) Practical laboratories	113	Catalan	first semester	morning-mixed
(PLAB) Practical laboratories	114	Spanish	first semester	morning-mixed