

**Neurology of Language**

Code: 101710  
ECTS Credits: 9

Degree	Type	Year	Semester
2500893 Speech therapy	OB	2	A

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: Yes

**Teachers**

Carlota Faixa Sol  
Carmen García Sánchez  
Rosana Marí Vico

**Prerequisites**

There are no official prerequisites. It is recommended to pass the subject Anatomy and Physiology of the Nervous System.

**Objectives and Contextualisation**

The syllabus studies the main functional brain systems and the consequences of their disorganization due to injuries or diseases of the central nervous system, in order to prepare students for the systematic study of language pathology (aphasiology) caused by these injuries and also introduce them into the specific rehabilitation techniques of the corresponding disorders. Other subjects of the Degree deepens into specific aspects of the rehabilitation of speech, language and swallowing disturbances: Dysphagia and related disorders (101712), Neurodegenerative diseases and dementias (101711), Technological innovation applied (101694), Practicum III (101696).

At the end of the course the student must be able to:

- Describe and identify the semiology of the different disorders of language, speech and swallowing associated with brain injuries or diseases
- Know and be able to apply the bases of the cerebral functional reorganization
- Write diagnostic reports in accordance with the data obtained from the anamnesis and the examination
- Establish therapeutic plans based on the conclusions of a diagnostic report
- Develop therapeutic activities in accordance with a previously established therapeutic plan
- Communicate in a proper way during the oral presentations made throughout the course
- Communicate by writing correctly and in accordance with the code of practice in the documents they submit throughout the course

## Skills

- Act in accordance with the code of ethics of the profession: respect professional confidence secrets , apply professional criteria for completion and referral of treatments
- Analyze and synthesize information.
- Understand, integrate and relate new knowledge as a result of autonomous learning.
- Demonstrate understanding of disorders of communication, language, speech, hearing, voice and non-verbal oral functions.
- Demonstrate an understanding of the operation of the profession and the legal status of the speech therapist.
- Explore, evaluate and diagnose communication and language disorders, and issue a prognosis of evolution, from a multidisciplinary standpoint.
- Use communication and information technologies.
- Critically evaluate the techniques and instruments of evaluation and diagnosis in speech and language therapy, as well as the procedures of speech and language therapeutics interventions.

## Learning outcomes

- Act ethically in the cases of patients observed in the practical sessions, as well as in the interaction with the relatives of the patients.
- Analyze and synthesize.
- Understand, integrate and relate new knowledge as a result of autonomous learning.
- Describe and explain the theoretical basis of rehabilitation techniques for speech, language and swallowing disorders of neurological origin.
- Describe the main techniques for assessing and diagnosing disorders of language, speech and swallowing of neurological origin.
- Explicate the methodology of the patient referral system between speech and language therapy professionals and other health system professionals.
- Describe the origin and characteristics of language, speech and swallowing disorders caused by brain damage.
- Use communication and information technologies.
- Use the most appropriate assessment techniques to diagnose language, speech and swallowing disorders of neurological origin, and to issue a prognosis of evolution.
- Assess the usefulness of the main techniques for the evaluation and diagnosis of speech and language therapy for disorders of neurological origin and be able to interpret the results.

## Competences

- Act appropriately with respect to the professions ethical code: respect professional confidentiality, apply professional criteria in the completion and referral of treatment.
- Analyse and synthesise information.
- Critically evaluate the techniques and instruments of evaluation and diagnosis in speech therapy, as well as its procedures of intervention.
- Demonstrate an understanding of disorders in communication, language, speech, hearing, voice and non-verbal oral functions.
- Demonstrate an understanding of how the profession works, and the legal status of the speech therapist.
- Explore, evaluate, diagnose and produce a prognosis of development for disorders of communication and language, from a multidisciplinary perspective.
- Managing communication and information technologies.
- Understand, integrate and relate new knowledge deriving from autonomous learning.

## Learning Outcomes

1. Act ethically in cases of patients observed in practical sessions, as well as in interaction with the families of patients.
2. Analyse and synthesise.

3. Assess the usefulness of the main techniques of assessment and diagnosis of speech-therapy disorders of neurological origin and be able to interpret related results.
4. Describe and explain the theoretical basis of the techniques of rehabilitation for disorders of speech, language and deglutition, of neurological origin.
5. Describe the main techniques in the assessment and diagnosis of disorders in language, speech and deglutition of neurological origin.
6. Explain the origin and characteristics of language speech and deglutition disorders caused by brain damage.
7. Explain the patient-referral system between speech professionals and other health care professionals.
8. Managing communication and information technologies.
9. Understand, integrate and relate new knowledge deriving from autonomous learning.
10. Use the most appropriate techniques to diagnose and issue a prognosis for the evolution of language, speech and deglutition disorders of neurological origin.

## **Content**

### Contents

1. History of the study of language
2. Neuropathology processes
3. Approach to neuropsychology of language
4. Cognitive functions
  - 4.1. Attention
  - 4.2. Memory
  - 4.3. Frontal Functions
5. Pathologies associated with language
  - 5.1 Agnosias
  - 5.2. Apraxias
  - 5.3. Alexias
6. Aphasia
  - 6.1 Etiology and Semiology
  - 6.2. Broca's aphasia
  - 6.3. Wernicke's aphasia
  - 6.4. Conduction aphasia
  - 6.5. Global Aphasia
  - 6.6. Sensory Transcortical Aphasia
  - 6.7. Motor Transcortical Aphasia
  - 5.8. Mixed Transcortical Aphasia
  - 6.9. Anomic aphasia

7. Examination of the cognitive function of language
8. Neurological intervention in language
9. Neurodevelopment of language
10. Research in language neurology

## Methodology

### Methodology

The course will consist of a theoretical module and a practical module with clinical case sessions and computerized sessions with self-learning materials. Training activities with an approximate number of hours of dedication and corresponding learning outcomes are those that are specified.

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			
Practical classes in computer rooms	5	0.2	5, 8
Practical classes of critical analysis and discussion of practical cases	15	0.6	2, 9, 10, 3
Theory classes with TIC support	45	1.8	5, 6
Type: Supervised			
Tutorials scheduled with teachers for review of guided activities	21	0.84	9
Type: Autonomous			
Bibliographic and documentary consultations	22	0.88	5, 6
Carrying out summaries of scientific works in aphasia	35	1.4	5, 6, 8
Comprehensive reading of materials	20	0.8	9, 6
Making summaries, diagrams and concept maps	15	0.6	2
Participation in communication forums between peers	15	0.6	9
Training with computer programs based on tutorials prepared by teachers	32	1.28	8

## Assessment

### Evaluation

### Continued evaluation

It involves carrying out theoretical-practical assessments throughout the semester and presenting reports on the practical classes.

Theoretical exam I and the theoretical exam II correspond to partial evaluations type test to evaluate the contents worked in each semester. The student who does not pass any of these evidences will have to recover the part or the corresponding parts.

The oral presentation corresponds to a group presentation of a part of the content of the subject.

#### Final score

The final score will be obtained from the average among all the evidences of learning. Evidence of learning cannot be averaged if it is not higher than 4. The subject is passed with a minimum score of 5.

In order to be evaluated, the student must pass the practical classes. Attendance at practical classes must be at least 80%. Students who do NOT comply with any of these premises will NOT pass the subject.

Students who have NOT submitted evidence of learning with a weight of at least 40% will be considered NOT assessable. If a recovery is necessary, the student must repeat the suspended learning evidence with a grade lower than 4, as long as it has been previously evaluated in a set of activities whose weight is equivalent to a minimum of two thirds of the total score of the subject.

#### Evaluation activities

Title Weight Hours ECTS Learning outcomes

Theoretical exam I

Theoretical exam II

Oral presentation

Practice: Aphasia Activity

Practice: Diagnostic Report

Practice: Therapeutic Plan

Practice: Semiology of Motor Aphasia

Practice: Semiology of Sensory Aphasia

### Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral presentation	11	0	0	1, 9, 8
Practice: Aphasia activity	14	0	0	2, 9, 8
Practice: Diagnostic report	14	0	0	2
Practice: Semiology of Motor Aphasia	3,5	0	0	1, 2, 9
Practice: Semiology of Sensory Aphasia	3,5	0	0	1, 2, 9
Practice: Therapeutic plan	14	0	0	1, 9, 8
Theory exam I	20	0	0	2, 9, 4, 5, 7, 6, 10, 3

## Bibliography

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