

**COURSE DATA****Data Subject**

<b>Code</b>	35310
<b>Name</b>	Physiotherapy applied to Speech Therapy
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	4.5
<b>Academic year</b>	2022 - 2023

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1203 - Degree in Speech Therapy	Faculty of Psychology and Speech Therapy	4	First term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1203 - Degree in Speech Therapy	37 - Physiotherapy applied to speech therapy	Optional

**Coordination**

<b>Name</b>	<b>Department</b>
ARNAL GOMEZ, ANNA	191 - Physiotherapy

**SUMMARY**

Physical Therapy applied to Speech and Language Therapy is a fourth-year elective subject where the student will know what Physical Therapy is, its characteristics and fundamental techniques and their application in patients with voice and language disorders in order to improve their communication potential. At the same time, students will learn both theoretical and practical functional assessment of vocal behavior, their main diseases and their treatment, emphasizing the rehabilitative function of Physical Therapy.

**PREVIOUS KNOWLEDGE**



### **Relationship to other subjects of the same degree**

There are no specified enrollment restrictions with other subjects of the curriculum.

### **Other requirements**

Subject without prerequisites.

## **OUTCOMES**

### **1203 - Degree in Speech Therapy**

- Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.
- Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.
- Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.
- Students must have developed the learning skills needed to undertake further study with a high degree of autonomy.
- Be able to carry out the rehabilitation of the speech and language disorder in different patients.
- Be able to determine the characteristics of a functional and comprehensive assessment of vocal behaviour.
- Have the ability to teach the patient the application of a physiotherapy treatment in certain pathologies associated with impaired speech and swallowing.
- Be competent in the assessment of orofacial alterations, which are of great importance in speech therapy practice.

## **LEARNING OUTCOMES**

Implement physiotherapy techniques used in speech therapy: kinesitherapy, massage, relaxation and electrotherapy.

Identify positions and other relevant characteristics musculoskeletal oral production.

Identify relevant aspects for the assessment and rehabilitation of communication disorders in cases of orofacial myofunctional disorders and dysphagia origin.

Apply physiotherapy techniques in certain diseases with language disorders.



## DESCRIPTION OF CONTENTS

### **1. Introduction to Physical Therapy applied to Speech and Language Therapy.**

- 1.1 Concept of Physical Therapy.
- 1.2 Specialized techniques: Kinesiotherapy and Massotherapy. Electrotherapy. Thermotherapy and cryotherapy. Hydrotherapy. Phototherapy.
- 1.3 Basic Concepts in Physiotherapy: reference planes and axis, posture, balance, muscle contraction types.

### **2. Musculoskeletal assessment applied the mouth and phonation system, the backbone and the respiratory system.**

- 2.1 Assessment of muscle function on facial area, pharynx and oral area, and temporomandibular joint.
- 2.2 Assessment of the backbone: cervical tract, shoulder girdle, dorsal spine, lumbar spine and pelvic girdle.
- 2.3 Osteoarticular study of the rib cage and respiratory mechanics. Assessment on respiratory muscles and breathing types.

### **3. Physical Therapy techniques applied to Speech and Language Therapy (I).**

- 3.1 Kinesiotherapy: Basic Techniques and Special Techniques. General Indications and contraindications.
- 3.2 Massage: Basic Maneuvers and Special Maneuvers. Effects on the organism. General Indications and contraindications.
- 3.3 Relaxation: Advantages. Types of relaxation.
- 3.4 Thermotherapy and cryotherapy: applications. Indications and contraindications.

### **4. Physical Therapy techniques applied to Speech and Language Therapy (II).**

- 4.1 Electrotherapy: effects, risks, types of electric current.
- 4.2 Neuromuscular bandage (kinesiotape): concept, physiological effects, application techniques. Indications and contraindications.
- 4.3 Respiratory Physiotherapy: objectives and techniques.

### **5. Physical therapy in disorders of voice and speech.**

- 5.1 Systems involved in voice and speech production.
- 5.2 Contributions of physiotherapy in dysphonia: postural reeducation, relaxation, breathing pattern retraining, applying Kinesio Taping, exercises, massage.
- 5.3 Contributions of physiotherapy in speech alterations.
- 5.4 Physical therapy in laryngectomy.
- 5.5 Physical therapy in laryngeal paralysis.

**6. Physical Therapy in Orofacial and swallowing disorders.**

6.1 Physiotherapy in the cranio-mandibular dysfunction: main symptoms and signs, physiotherapy treatment.

6.2 Physiotherapy in neurogenic orofacial pain and postoperative pain.

6.3 Physiotherapy in facial paralysis.

6.4 Contributions of physiotherapy in the dysphagia: Concept and etiology, symptoms and signs, exploration of the various phases of swallowing, dysphagia assessment, rehabilitation techniques and facilitation.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Classroom practices	15,00	100
Attendance at events and external activities	0,00	0
Study and independent work	30,00	0
Preparation of practical classes and problem	22,50	0
Resolution of case studies	15,00	0
<b>TOTAL</b>	<b>112,50</b>	

**TEACHING METHODOLOGY**

The theoretic classes of the subject will include lectures of the contents. Clinical cases will be studied, literature will be reviewed and different audiovisual methods will be used.

In the practical classes, we will rehearse and develop techniques and physical therapy procedures previously seen in lecture explains. The techniques will be done by couples where one takes the role of the patient and the other of the therapist.

Furthermore individualized tutoring and group will be made in order to supervise student in their learning process.

**EVALUATION**

1) Assessment of theoretical and practical content through oral, written or performance of skills, specifically through a retention test (70%).

2) Written presentation of reports, individual or group work, clinical cases, problem solving and management of diagnostic tests related to the activities of the practical sessions (30%).



Attendance at practices is compulsory, except for well-documented reasons, and to pass the course you will need to attend at least 80% of the classes. If not, the contents and activities carried out in the practical classes are considered recoverable through a written test that will be carried out at the end of the official final test.

The final grade for the course is obtained from the averaged sum of the grades for each part of the assessment, so it will be an essential requirement to pass the course to reach a minimum of 50% in each of the two assessment sections (written official test and activities of practical sessions).

In the event of fraudulent practices, the Action Protocol for fraudulent practices at the University of Valencia will be applied (ACGUV 123/2020):

<https://www.uv.es/sgeneral/Protocols/C83.pdf>

## REFERENCES

### Basic

- Arias, C. (1993). Parálisis laríngicas, diagnóstico y tratamiento foniatrico de las parálisis cordales unilaterales en abducción. Masson: Barcelona.
- Bleeckx, D. (2004). Disfagia. McGraw-Hill. Interamericana: Madrid.
- Bustos, I. (1995). Tratamiento de los problemas de la voz. Cepe: Madrid.
- Torres, B., y Gimeno, F. La voz. (1995). Bases anatómicas. Autoedición médica JIMS: Barcelona.
- Zambrana, N., y Dalva, L. (1998). Logopedia y oropedia maxilar en la rehabilitación orofacial. Masson: Barcelona.
- Giménez M., Servera E., Vergara P. (2004) Prevención y rehabilitación en patología respiratoria crónica. Madrid: Ed. Médica Panamericana
- Ortega P, Torres A. Manual del Vendaje Neuromuscular aplicado a la Logopedia. LDM Ediciones. 2013.

### Additional

- Aramburu, C., Muñoz, E., e Igual, C. (1998). Electroterapia, termoterapia e hidroterapia. Síntesis: Madrid.
- Mora, E., y de Rosa, R. (1998). Fisioterapia del aparato locomotor. Síntesis. Madrid.
- Meliá Oliva J.F. (2008) Historia de la Fisioterapia. València: Ilustre Colegio Oficial de Fisioterapeutas de la Comunidad Valenciana
- Dueñas L, Balasch M, Espí GV. Técnicas y nuevas aplicaciones del vendaje neuromuscular. Lettera Publicaciones. Bilbao. 2010