

Academic Year/course: 2021/22

## 26828 - Audiometry and Auditory Prostheses

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 26828 - Audiometría y prótesis auditivas

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 297 - Degree in Optics and Optometry

**ECTS:** 6.0

**Year:** 3 and 4

**Semester:** Second semester

**Subject Type:** Optional

**Module:**

### 1. General information

### 2. Learning goals

### 3. Assessment (1st and 2nd call)

### 4. Methodology, learning tasks, syllabus and resources

#### 4.1. Methodological overview

**The learning system that has been designed for this subject is based in the following points:**

The matter is structured in 30 one-hour sessions (3ECTS) given in large groups, and 30 one-hour sessions given in small groups.

Additionally the teachings of this area will include the non-presential load of work corresponding to the total of ECTS credits of the subject (90hours aproximately).

The teaching sessions content will be based in the teachers recommended bibliography, which will be adapted to the student?s knowledge level.

#### 4.2. Learning tasks

Classroom teaching. Large group classes

Classroom teaching. Short group classes

1: Otoscopy, videotoscopy

2: impedanciometry

3: Earmold impression

4: Ton eliminair and supraliminal Audiometry

5: Vocal Audiometry

6: Hearing Aids Types, Hearing Aids selection in order to hearingloss and hearing Aids accessories

7: Free field audiometry

8: Hearing Aids and solutions for children

9: Earmolds modifications . Daily care and troubleshooting common hearing aids problema..

### **4.3. Syllabus**

Class 1: Auditory sense

Class 2: Sound. Soundwaves

Class 3: Volume, tone and timbre of the sound

Class 4: Reflection, refraction, and diffraction of sound

Class 5: Interference, Doppler effect, resonance ,distortion

Class 6: Audiométricunit :the octave

Class 7: The decibel

Class 8: Audiograms

Class 9: The Pinna

Class 10.The External Auditory Cannal

Class 11: The Eardrum

Class 12: Outer Ear Patology

Class 13: Middle Ear Anatomy

Class 14: The mastoid. Eustachean Tube.

Class 15: Middle Ear Patology.

Class 16: The inner Ear. The semicircular Canals.

Class 17: The Cochlea.

Class 18: Cochlear duct: The Corti organ

Class 19: The outer hair cells

Class 20: The inner hair cells and transduction

