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# EUROPASS DIPLOMA SUPPLEMENT

## TITLE OF THE DIPLOMA (ES)

*Técnico Superior en Audiología Protésica*

## TRANSLATED TITLE OF THE DIPLOMA (EN) (1)

*Higher Technician in Prosthetic Audiology*

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(1) This translation has no legal status.

## DIPLOMA DESCRIPTION

**The holder of this diploma will have acquired the General Competence with regard to:**

Selecting and adapting audio prostheses giving an audiological assessment, carrying out the monitoring of users and the maintenance of prostheses, as well as determining acoustic protection measures from the assessment of sound levels.

**Within this framework, the PROFESSIONAL MODULES and their respective LEARNING OUTCOMES acquired by the holder are listed below:**

### "Anatomic and Sensory Hearing Characteristics"

The holder:

- Describes the general anatomic, physiological and pathological characteristics and those related to the auditory system interpreting medical prescriptions.
- Carries out audio-logical examinations and tests justifying the selected tests.
- Carries out studies on children's hearing relating the same with the physical characteristics and cognitive development of children.
- Determines the possibilities hearing loss correction analysing the anatomic and sensory characteristics of the user and the clinical indications of audio prostheses.

### "Electronic Technology for Audio Prostheses"

The holder:

- Measures electric and electromagnetic magnitudes of electrical circuits relating measuring tools and techniques.
- Fits analogical electrical and electronic circuits, interpreting sketches and block diagrams.
- Fits digital electronic circuits, describing their diagrams and how they work.
- Detects basic malfunctions in electronic circuits with associated programmable and peripheral mechanisms, describing their diagrams and how they work.
- Repairs hearing aids and hearing technical aids identifying their components and relating them with their possible malfunctions.

### "Acoustics and Elements of Sound Protection"

The holder:

- Measures the physical parameters of sound recognising its nature and describing their physical properties.
- Determines people's auditory perception describing the psychological and acoustic processes involved.
- Designs sound field rooms relating the properties of the enclosed area with the tests being carried out.
- Measures sound and noise exposure levels applying phonometric techniques.
- Determines hearing protection needs relating environment measurements with current legislation.

### "Mould making and Hearing Protection Devices"

The holder:

- Obtains impressions of the outer ear, relating impression techniques with the types of anatomical or protective adaptors.
- Prepares impressions, relating techniques with anatomical or protective adaptors.
- Makes counter-moulds relating preparation techniques with the anatomical or protective adaptors.
- Prepares anatomical adaptors, applying polymerisation or vulcanisation and final finishing techniques.
- Fits acoustic and electro acoustic mechanisms, describing the techniques to join them to the anatomical adaptor.
- Prepares hearing protection devices relating their insulating characteristics with legal requirements.

**"Selection and Adaptation of Audio Prostheses"**

The holder:

– Selects non-implantable audio prostheses relating their technical specifications with the user's anatomic and sensory characteristics.
– Adapts non-implantable audio prostheses applying programming techniques.
– Regulates implanted audio prostheses, applying programming techniques.
– Checks the result of the prosthetic adaptation applying subjective and objective audiological techniques.
– Selects complementary technical aids, relating them with the characteristics of the user and his/her environment.
– Assesses users' satisfaction applying quality protocols.

**"Hypo-acoustic Patients Care"**

The holder:

– Detects emotional attitudes and states as regards hearing loss, applying basic principles of general psychology.
– Informs users, describing the prosthetic adaptation plan.
– Informs the educational community about children's hearing loss, describing models and performance protocols.
– Establishes communication with deaf patients applying different communication systems which are complementary or substitute oral communication.
– Participates with interdisciplinary teams of hearing loss rehabilitation recognising their functions.
– Prepares audio-prosthetic reports selecting relevant technical and clinical data.

**"Hearing and Verbal Communication"**

The holder:

– Recognises the components of the vocal apparatus that participate in the production of speech identifying their function.
– Describes the structural elements of the tongue, relating them with the perceptive characteristics of the hypo-acoustic person.
– Identifies the normalised process of oral language acquisition of hypo-acoustic children relating the same with the normalised development of oral language.
– Identifies speech sounds, determining their importance in relation to hearing loss.

**"Project on Prosthetic Audiology"**

The holder:

– Identifies the needs of the productive sector, relating them with the standard projects that may satisfy them.
– Designs projects related to the competences described in the diploma, including and developing their constituting stages.
– Plans the project implementation, determining the intervention plan and associated documentation.
– Defines the procedures for the monitoring and control of the project implementation, justifying the selection of variables and instruments used.

**"Professional Training and Guidance"**

The holder:

– Selects job opportunities, identifying the different possibilities of labour integration, and the alternatives of lifelong learning.
– Applies teamwork strategies, assessing their effectiveness and efficiency on the achievement of the company's goals.
– Exercises rights and complies with the duties derived from labour relationships, recognising them in the different job contracts.
– Determines the protective action of the Spanish Health Service in view of the different covered eventualities, identifying the different types of assistance.
– Assesses risks derived from his/her activity, analysing job conditions and risk factors present in his/her labour setting.
– Participates in the development of a risk prevention plan in a small enterprise, identifying the responsibilities of all agents involved.
– Applies protection and prevention measures, analysing risk situations in the labour setting of the Higher Technician in Prosthetic Audiology.

**"Business and Entrepreneurial Initiative"**

The holder:

– Recognises skills related to entrepreneurial initiative, analysing the requirements derived from job positions and business activities.
– Defines the opportunity of creating a small enterprise, assessing the impact on the performance setting and incorporating ethic values.
– Carries out the activities for the setting-up and implementation of a company, choosing the legal structure and identifying the associated legal obligations.
– Carries out basic administrative and financial management activities of an SME, identifying the main accounting and tax obligations and filling in documentation.

**"On the Job training"**

The holder:

– Identifies the company's structure and organization relating them to the production and marketing of the products obtained.
– Applies labour and ethic habits in his/her professional activity according to the characteristics of the job position and the procedures established by the company.
– S/he communicates with users, their environment and work team members applying communication techniques and obtaining the necessary information in order to proceed with the prosthetic adaptation.
– Manages an audio prostheses clinic, performing administrative operations.
– Identifies the most appropriate prosthesis interpreting the anatomic-sensory data of the person with hearing loss.
– Prepares and repairs audio prostheses in accordance with the established protocols.
– Adapts audio prostheses and technical aids, applying performance protocols according to users' needs.
– Measures sound levels applying protocols and recommending protection measures against noise.

## RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE DIPLOMA

The Higher Technician in Prosthetic Audiology works in the public and private health sector, private companies in the sector, audio prostheses clinics and on the prevention of environmental noise effects.

The most relevant occupations or jobs are the following:

- Higher Technician in audio prostheses
- Specialist in audio prostheses
- Technician in mould making and hearing protection devices
- Technician in sound level measuring
- Audiometrist

## AWARD, ACCREDITATION AND LEVEL OF THE DIPLOMA

**Name of the body awarding the diploma on behalf of the King of Spain:** Spanish Ministry of Education or the different Autonomous Communities according to their areas of competence. The title has academic and professional validity throughout Spain.

**Official duration of the education/ training leading to the diploma**: 2000 hours.

**Level of the diploma (national or international)**

- NATIONAL: Non-University Higher Education
- INTERNATIONAL:
  - Level 5 of the International Standard Classification of Education (ISCED5).
  - Level 5 of the European Qualifications Framework (EQF5).

**Entry requirements:** Holding the Certificate in Post-Compulsory Secondary Education (Bachillerato) or holding the corresponding access test.

**Access to next level of education/training:** This diploma provides access to University studies.

**Legal basis.** Basic regulation according to which the diploma is established:

- Minimum teaching requirements established by the State: Royal Decree 1685/2007 of 14 December, according to which the diploma of Higher Technician in Prosthetic Audiology and its corresponding minimum teaching requirements are established.

**Explanatory note**: This document is designed to provide additional information about the specified diploma and does not have any legal status in itself.

## COURSE STRUCTURE OF THE OFFICIALLY RECOGNISED DIPLOMA

| PROFESSIONAL MODULES IN THE DIPLOMA ROYAL DECREE | CREDITS ECTS |
|---|---|
| **Anatomic and Sensory Hearing Characteristics.** | 19 |
| **Electronic Technology for Audio prostheses.** | 13 |
| **Acoustics and Elements of Sound Protection.** | 11 |
| **Mould making and Hearing Protection Devices.** | 14 |
| **Selection and Adaptation of Audio Prostheses.** | 15 |
| **Hypo-acoustic Patients Care.** | 6 |
| **Hearing and Verbal Communication.** | 6 |
| **Project on Prosthetic Audiology** | 5 |
| **Vocational Training and Guidance.** | 5 |
| **Business and Entrepreneurial Initiative.** | 4 |
| **On the Job Training.** | 22 |
| | TOTAL CREDITS |
| | ***120*** |
| OFFICIAL DURATION (HOURS) | ***2000*** |

* The minimum teaching requirements shown in the table above comprise 55% official credit points valid throughout Spain. The remaining 45% corresponds to each Autonomous Community and can be described in the **Annex I** of this supplement.

## INFORMATION ON THE EDUCATION SYSTEM