

Postgraduate Certificate

Pathophysiology of Hearing and Phonation





Postgraduate Certificate Pathophysiology of Hearing and Phonation

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/pathophysiology-hearing-phonation

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01

Introduction to the Program

The pathophysiology of hearing and phonation is fundamental in otorhinolaryngology and phoniatrics, as it allows us to understand the pathological mechanisms that affect human communication. According to the World Health Organization (WHO), more than 1.5 billion people in the world have some degree of hearing loss, and it is estimated that this figure will increase to 2.5 billion by 2050. Taking into account the importance of this field, TECH has developed this Postgraduate Certificate that will provide in-depth and up-to-date training, based on the latest scientific findings and best clinical practices. Using a 100% online modality, specialists will prepare to improve the assessment, diagnosis and treatment of hearing and voice disorders.



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You will access the most advanced knowledge on auditory and vocal disorders with a 100% online program that adapts to your pace. Thanks to the Relearning methodology, you will optimize your education in a dynamic way”

Hearing and phonation are fundamental processes in human communication, the deterioration of which can significantly affect the quality of life of patients. In fact, alterations in these systems can be due to multiple factors, from congenital pathologies and trauma, to neurodegenerative diseases or exposure to ototoxic agents. In this context, advanced knowledge of the Pathophysiology of Hearing and Phonation is essential for the diagnosis and treatment of these disorders.

For this reason, TECH has developed this Postgraduate Certificate in Pathophysiology of Hearing and Phonation, which will offer an in-depth and up-to-date approach to this field. Through a complete and specialized syllabus, the anatomical and functional bases of the auditory and phonatory system will be addressed in detail, as well as the most frequent disorders that affect them. Subsequently, disorders such as hearing loss, dysphonia, presbycusis and aphonia will be analyzed, together with the most effective therapeutic strategies for their management. Likewise, content on the impact of neuroscience on auditory or vocal rehabilitation and the use of new technologies in the diagnosis of these alterations will be included.

Based on this, graduates will acquire a comprehensive perspective on the evaluation and treatment of auditory and phonatory disorders, which will enable them to improve clinical care and expand their job opportunities. With this preparation, they will be able to work in various fields, thereby consolidating their profile in a highly demanded area within the health sector.

Finally, this program will be delivered 100% online, facilitating flexible access to the content without interfering with work or personal activities. In turn, the implementation of the innovative Relearning methodology will promote progressive learning and the effective assimilation of key concepts through the strategic repetition of content, thereby optimizing the educational process.

This **Postgraduate Certificate in Pathophysiology of Hearing and Phonation** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ♦ The development of practical cases presented by experts in Speech Therapy.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in the Pathophysiology of Hearing and Phonation
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



You will delve into the mechanisms that affect human communication and become an expert in their diagnosis and treatment. At TECH you will learn without fixed schedules, with 24/7 access to the best content"

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Only at TECH will you benefit from the most advanced knowledge in auditory and voice pathophysiology. You will learn without fixed schedules, with content accessible 24/7 and endorsed by experts in the sector”

Its teaching staff includes professionals from the field of Speech Therapy, who bring their work experience to this program, as well as renowned specialists from leading societies and prestigious universities

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

With an up-to-date syllabus and a clinical focus, this program will prepare you to take your career to the next level. Enrol now and specialize with the best!

This innovative program will give you access to top-level faculty and state-of-the-art materials for a thorough understanding of hearing and voice disorders.



02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.



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Study at the largest online university in the world and ensure your professional success. The future begins at TECH”

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



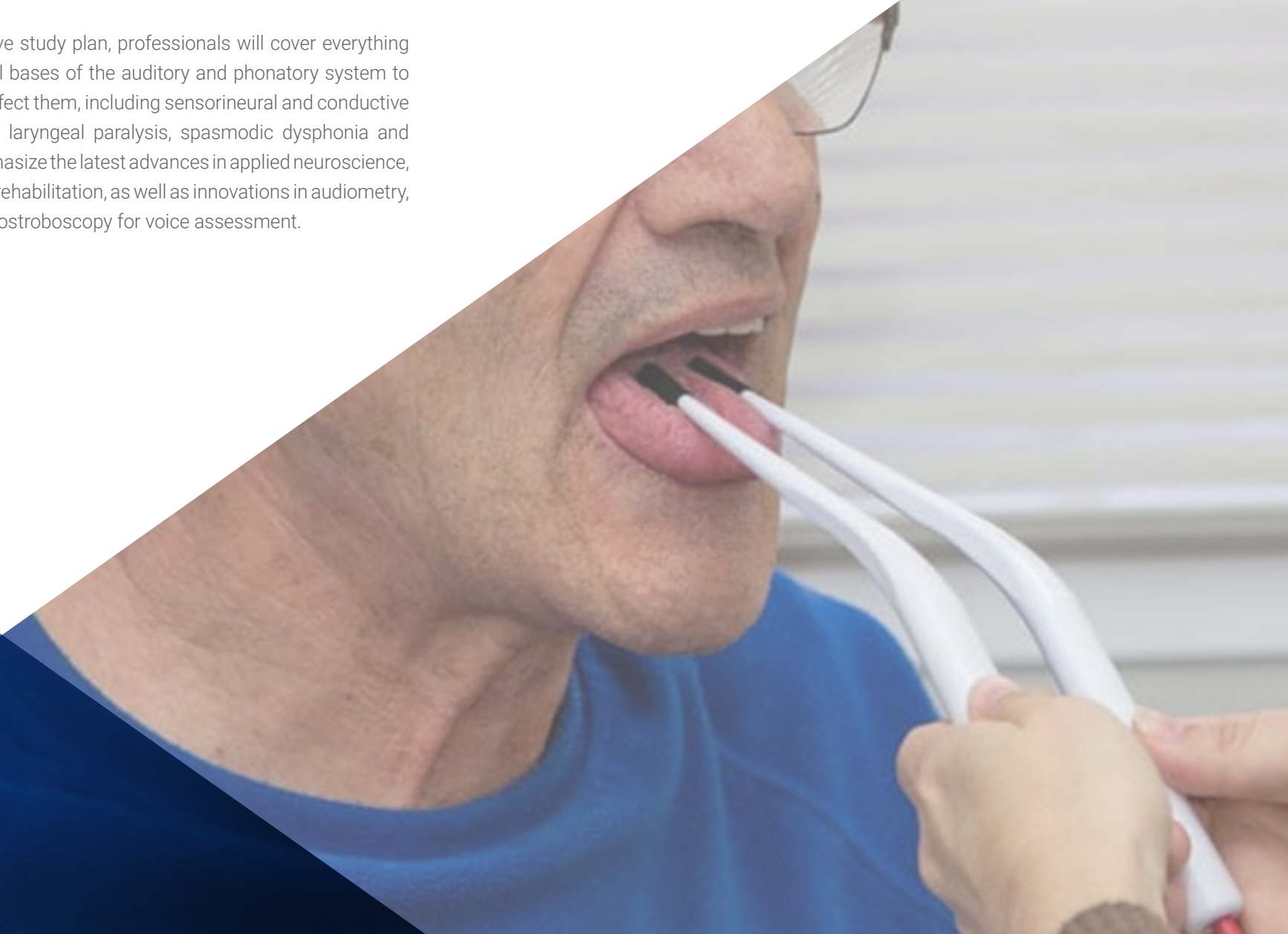
The top-rated university by its students

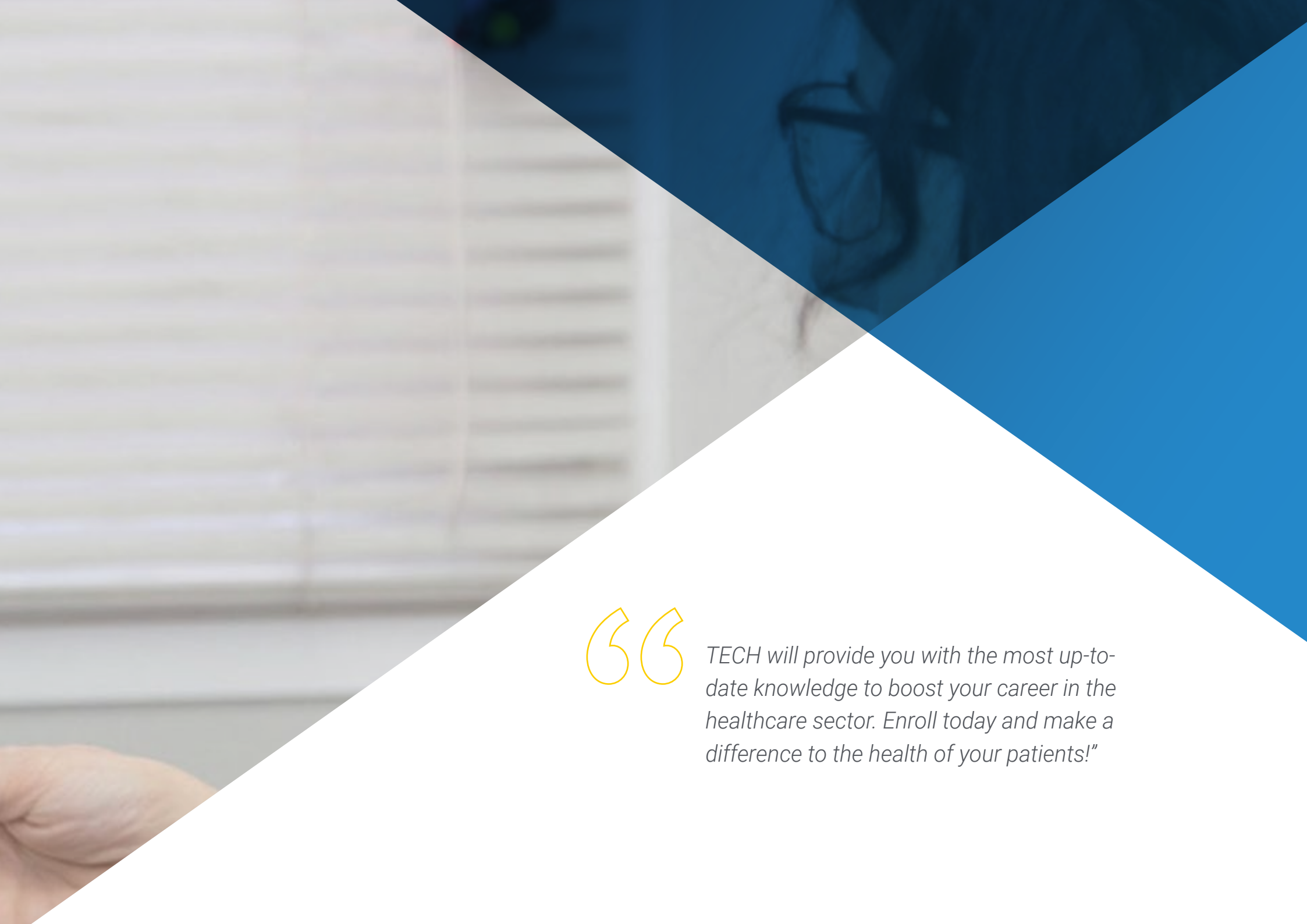
Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



03 Syllabus

Throughout this very comprehensive study plan, professionals will cover everything from the anatomical and functional bases of the auditory and phonatory system to the most common disorders that affect them, including sensorineural and conductive hearing loss, tinnitus, presbycusis, laryngeal paralysis, spasmodic dysphonia and dysarthria. In addition, they will emphasize the latest advances in applied neuroscience, including brain plasticity in auditory rehabilitation, as well as innovations in audiometry, impedance measurement, and videostroboscopy for voice assessment.



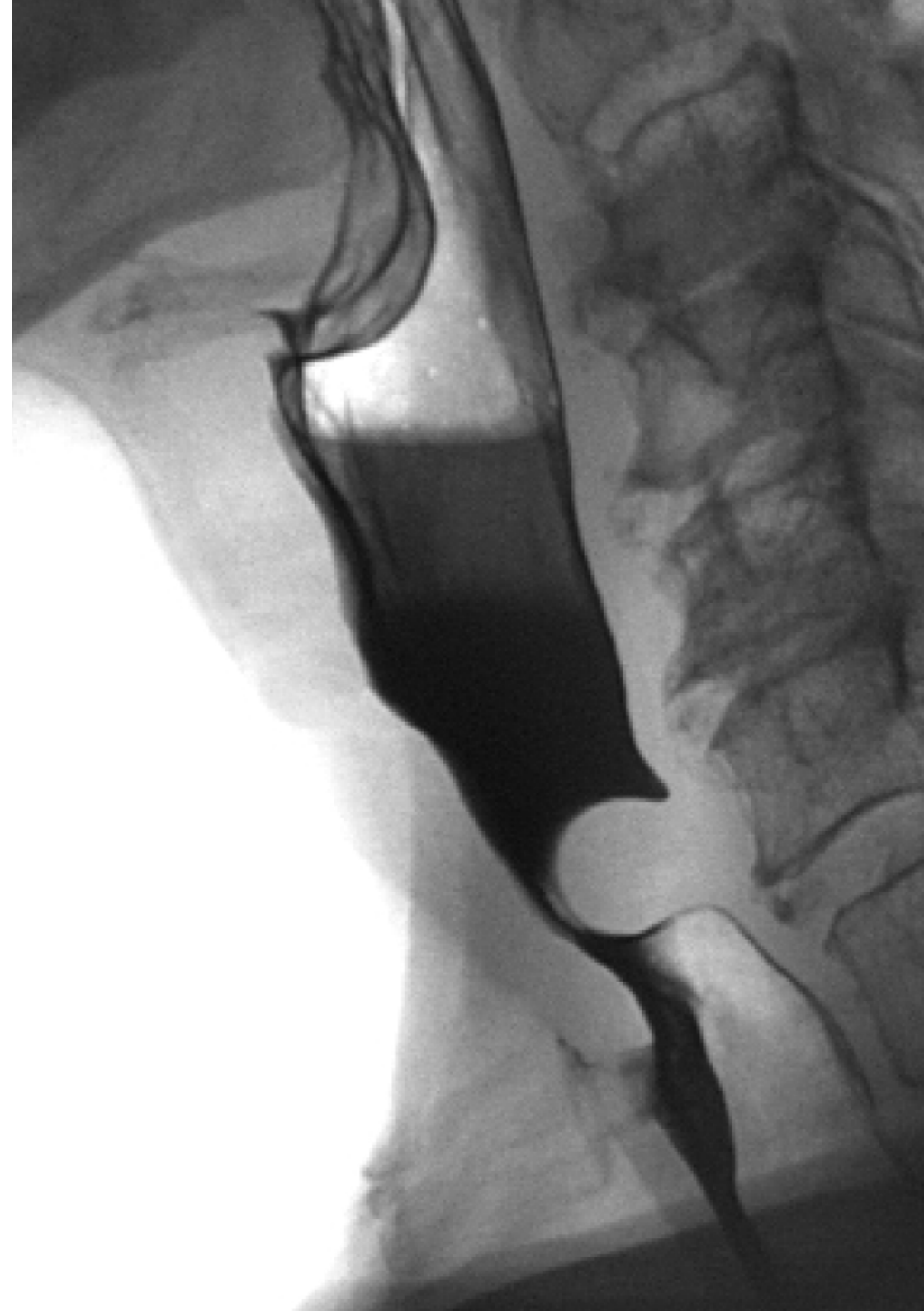


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TECH will provide you with the most up-to-date knowledge to boost your career in the healthcare sector. Enroll today and make a difference to the health of your patients!”

Module 1. Pathophysiology of Hearing and Phonation

- 1.1. Voice Disorders
 - 1.1.1. Normal Voice and Dysphonia
 - 1.1.1.1. Characteristics of the Normal Voice
 - 1.1.1.2. Risk Factors
 - 1.1.2. Classification of Dysphonia
 - 1.1.2.1. Functional Dysphonias
 - 1.1.2.2. Organic Dysphonias
 - 1.1.2.3. Psychogenic Dysphonia
 - 1.1.2.4. Idiopathic Dysphonia
 - 1.1.3. Interdisciplinary Approach
 - 1.1.3.1. Otolaryngologist
 - 1.1.3.2. Speech Therapist
 - 1.1.3.3. Psychologist
- 1.2. Voice Assessment
 - 1.2.1. Concepts of Voice Pathophysiology
 - 1.2.1.1. The Physiology of Phonation
 - 1.2.1.2. Pathological Alterations in the Voice
 - 1.2.2. Medical History and Quality of Life
 - 1.2.2.1. Assessment of Medical History
 - 1.2.2.2. Impact on Quality of Life
 - 1.2.3. Perceptual Assessment of the Voice
 - 1.2.3.1. Methods of Perceptual Assessment
 - 1.2.3.2. Voice Assessment Tools
 - 1.2.4. Speech Therapy Assessment of the Voice
 - 1.2.4.1. Functional Assessment
 - 1.2.4.2. Instrumental Assessment
- 1.3. Laryngeal Imaging
 - 1.3.1. Laryngoscopy
 - 1.3.1.1. Direct
 - 1.3.1.2. Indirect



- 1.3.2. Videolaryngoscopy
 - 1.3.2.1. Medical Procedure
 - 1.3.2.2. Clinical Applications
 - 1.3.2.3. Clinical Usefulness for the Speech Therapist
- 1.3.3. Laryngostroboscopy
 - 1.3.3.1. Medical Procedure
 - 1.3.3.2. Clinical Applications
 - 1.3.3.3. Clinical Usefulness for the Speech Therapist
- 1.4. Voice Laboratory I
 - 1.4.1. Aerodynamics of the Voice
 - 1.4.1.1. Air Flow During Phonation
 - 1.4.1.2. Measurement of Subglottic Pressure
 - 1.4.2. Acoustic Analysis
 - 1.4.2.1. Fundamental Frequency
 - 1.4.2.2. Timbre and Voice Quality
 - 1.4.3. Spectrogram
 - 1.4.3.1. Definition and Characteristics
 - 1.4.3.2. Clinical Interpretation
 - 1.4.4. Electroglottography
 - 1.4.4.1. Principle of Operation
 - 1.4.4.2. Applications in Voice Disorders
 - 1.4.5. Laryngeal Electromyography
 - 1.4.5.1. Principles of Electromyography
 - 1.4.5.2. Clinical Applications
- 1.5. Voice Laboratory II
 - 1.5.1. Spectrogram
 - 1.5.1.1. Spectral Analysis of the Voice
 - 1.5.1.2. Relationship with Voice Disorders
 - 1.5.2. Smoothed Cepstral Peak Analysis
 - 1.5.2.1. Smoothing Techniques
 - 1.5.2.2. Clinical Use

- 1.5.3. Electroglottography
 - 1.5.3.1. Recording Glottal Vibration
 - 1.5.3.2. Vocal Function Assessment
- 1.5.4. Inverse Filtering
 - 1.5.4.1. Filtering Techniques
 - 1.5.4.2. Application in Voice Assessment
- 1.6. Concept and Classification of Hearing Loss
 - 1.6.1. General Concepts
 - 1.6.1.1. Anatomy of the Auditory System
 - 1.6.1.2. Mechanisms of Hearing
 - 1.6.2. Classification of Hearing Loss
 - 1.6.2.1. Conductive Hearing Loss
 - 1.6.2.2. Sensorineural Hearing Loss
 - 1.6.2.3. Mixed Hearing Loss
 - 1.6.3. Degree of Severity of Hearing Loss
 - 1.6.3.1. Severity Level
 - 1.6.3.2. Sedation Scales
- 1.7. Conductive Hearing Loss
 - 1.7.1. Pathogenic Mechanisms
 - 1.7.1.1. Alterations in The External Ear
 - 1.7.1.2. Alterations in The Middle Ear
 - 1.7.2. Most Relevant Disorders
 - 1.7.2.1. Middle Ear Infection
 - 1.7.2.2. Perforated Eardrum
 - 1.7.3. Diagnosis and Assessment
 - 1.7.3.1. Clinical History and Physical Examination
 - 1.7.3.2. Audiological Tests
 - 1.7.3.3. Imaging Tests
- 1.8. Sensorineural Hearing Loss
 - 1.8.1. Pathogenic Mechanisms
 - 1.8.1.1. Alterations in The Internal Ear
 - 1.8.1.2. Damage to the Auditory Nerve



- 1.8.2. Most Relevant Congenital Disorders
 - 1.8.2.1. Hereditary Deafness
 - 1.8.2.2. Congenital Malformations
- 1.8.3. Presbycusis
 - 1.8.3.1. Pathophysiology
 - 1.8.3.2. Audiological Tests
- 1.8.4. Noise-Induced Hearing Loss
 - 1.8.4.1. Pathophysiology
 - 1.8.4.2. Audiological Tests
- 1.9. Mixed Hearing Loss
 - 1.9.1. Most Relevant Acquired Disorders
 - 1.9.1.1. Acoustic Trauma
 - 1.9.1.2. Infectious Diseases
 - 1.9.1.3. Menière's Disease
 - 1.9.2. Audiological Diagnosis
 - 1.9.2.1. Acuametry Tests
 - 1.9.2.2. Auditory Threshold Tests
 - 1.9.3. Interdisciplinary Treatment
 - 1.9.3.1. Otolaryngologist
 - 1.9.3.2. Adaptation of Hearing Aids
- 1.10. Impact of Hearing Loss and Dysphonia on Communication and Quality of Life
 - 1.10.1. Effects of Hearing Loss on Language Development, Speech and Social Interaction
 - 1.10.1.1. Language Delay
 - 1.10.1.2. Difficulties in Social Communication
 - 1.10.2. Effects of Hearing Loss on Adult Communication
 - 1.10.2.1. Implications for Professional Life
 - 1.10.2.2. Implications for Family Life
 - 1.10.2.3. Implications for Social Life
 - 1.10.3. Consequences of Dysphonia on Professional, Social and Emotional Communication
 - 1.10.3.1. Impact on the Professional Voice
 - 1.10.3.2. Emotional and Psychological Effects

- 1.10.4. Changes in Quality of Life Derived from Hearing Loss and Dysphonia
 - 1.10.4.1. Social Isolation
 - 1.10.4.2. Decreased Self-Esteem
- 1.10.5. Speech Therapy Intervention Strategies to Mitigate the Impact of these Conditions
 - 1.10.5.1. Voice Therapy
 - 1.10.5.2. Auditory Adaptation
- 1.10.6. Importance of Prevention, Early Diagnosis and Comprehensive Treatment
 - 1.10.6.1. Prevention in the Family, Social and Work Environment
 - 1.10.6.2. Early Diagnosis and Monitoring



Thanks to TECH and its comprehensive program, you will discover the secrets of hearing and phonation. You will manage the alterations that affect human communication, as well as their diagnosis and treatment"

04

Teaching Objectives

The main objective of this Postgraduate Certificate is to provide professionals with specialized and up-to-date knowledge about the alterations that affect these systems that are essential for human communication. To this end, they will delve into the physiology of the auditory and phonatory apparatus, allowing them to understand the mechanisms underlying disorders such as hearing loss, presbycusis, dysphonia or aphonia. Through a clinical and scientific approach, they will acquire the necessary tools to make accurate diagnoses and design effective therapeutic strategies. In this way, graduates will be ready to respond to current challenges in the clinical field.



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Thanks to this very complete Postgraduate Certificate, you will strengthen your professional judgment and decision-making in clinical practice. What are you waiting for to belong to the largest online university in the world according to Forbes?”



General Objectives

- ♦ Analyze the physiological and pathological principles of the auditory and phonatory system
- ♦ Identify the main auditory alterations and their clinical implications
- ♦ Assess the impact of auditory and phonatory diseases on human communication
- ♦ Apply advanced techniques for the diagnosis and treatment of auditory and speech disorders
- ♦ Interpret the results of audiological and phonatory tests to establish accurate diagnoses
- ♦ Design prevention and rehabilitation strategies for patients with hearing and voice disorders
- ♦ Examine the relationship between environmental factors and the appearance of hearing and phonation disorders
- ♦ Integrate new technologies into the assessment and treatment of ear and voice disorders
- ♦ Develop research skills to improve audiological and phonatory procedures
- ♦ Optimize care for patients with hearing and speech disorders in different clinical settings





Specific Objectives

- ♦ Identify the main types of hearing loss, as well as the associated disorders that affect hearing, describing their causes, pathogenic processes and consequences
- ♦ Analyze the altered physiological mechanisms in pathologies of the voice and the auditory system, relating them to their impact on communication disorders
- ♦ Manage the anatomy and physiology of the organs of speech and hearing in order to understand the pathological alterations that cause voice and hearing disorders
- ♦ Understand the importance of the prevention, treatment and prognosis of disorders that affect communication from a comprehensive speech therapy perspective



Supported by a novel interactive system and with 100% online lessons, TECH offers you the opportunity to expand your knowledge in a simple, agile and efficient way"

05 Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

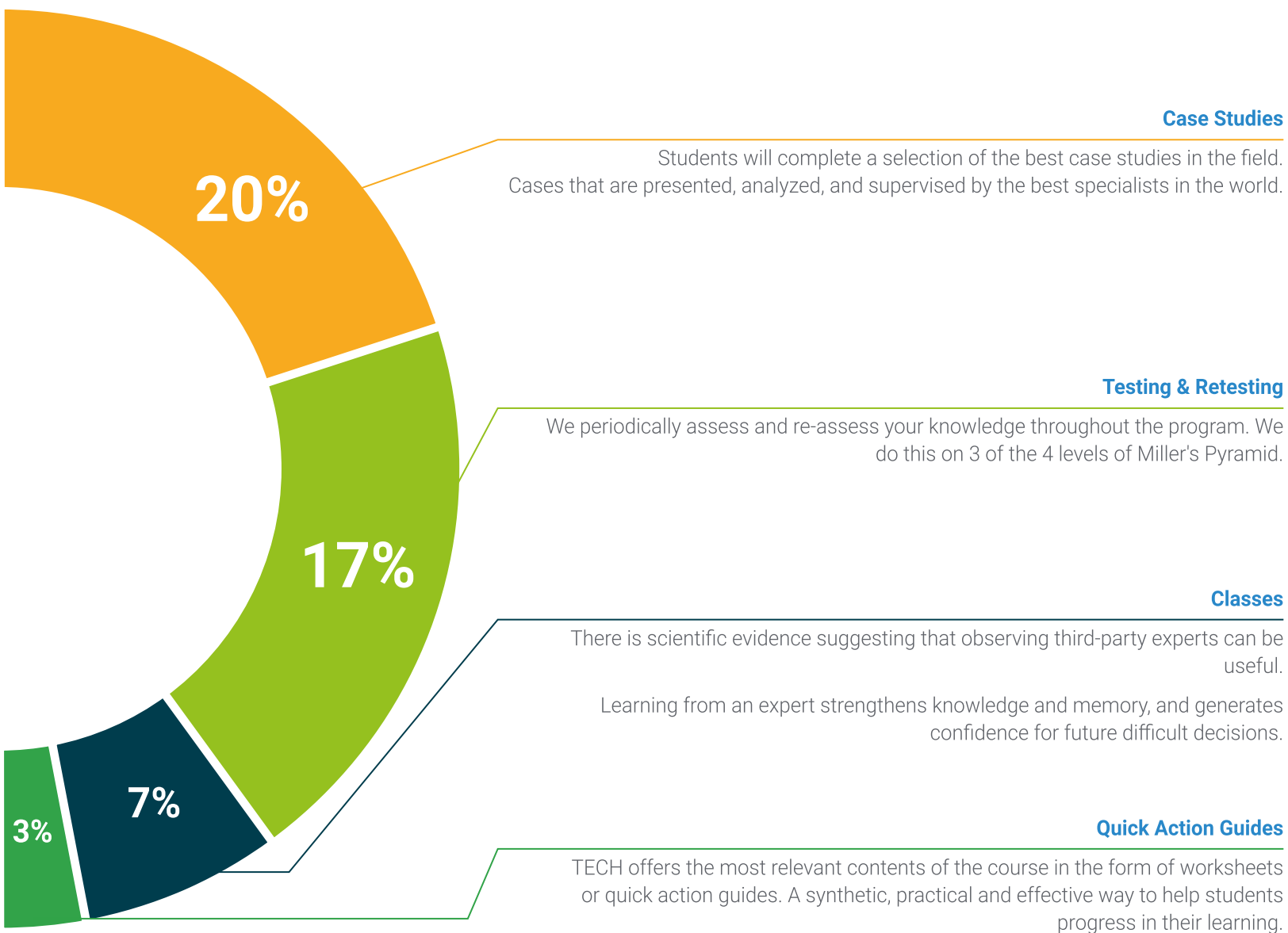
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





06 Certificate

This Postgraduate Certificate in Pathophysiology of Hearing and Phonation guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Certificate issued by TECH Global University.



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*Successfully complete this program and
receive your university qualification without
having to travel or fill out laborious paperwork"*

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in Pathophysiology of Hearing and Phonation** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University, is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Pathophysiology of Hearing and Phonation**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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