

**ISTINYE UNIVERSITY**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF AUDIOLOGY**  
**COURSE DESCRIPTIONS**

**1 st SEMESTER**

**ATA101-Ataturk's Principles and History of Revolution 1 (2 ECTS)**

The Dissolution of the Ottoman Empire, Tanzimat and Reform Edict, I. and II. Constitutional Monarchy Period, Tripoli and Balkan Wars, World War I, Armistice of Mudros, War of Independence; Amasya Circular, National Congresses, Establishment of the Turkish Grand National Assembly, Proclamation of the Republic.

**DIL101-General English 1 (2 ECTS)**

Ability to use basic everyday expressions; introducing themselves, second and third parties; being able to ask and answer questions about personal information.

**AUD101-Physics (2 ECTS)**

This course includes the topic of physical concepts, force and vector, momentum and balance, motion, work-energy, energy types and conservation, electric field and potentials.

**AUD103- Speech and Language Development (2 ECTS)**

Communication. Language. Speech. Language development periods in children. Factors affecting speech. Neuroanatomy and Neurophysiology of language and speech. Language speech disorders.

**AUD105- Basic Audiology 1 (5 ECTS)**

In this course; Introduction to Audiology, Who is an Audiologist? What are its Duties and Responsibilities?, Development of Audiology in the World and in our Country, Explanation of Basic Audiological Concepts, Anatomy of the Hearing System, Physiology of the Hearing System, General Mechanism of the Hearing Process, Introduction of the Basic Test Battery and Equipment Used in Hearing Evaluation, Clinical Evaluation of Hearing Function: Pure Voice and Speech Audiometry, Immitancemetric Analysis, Otoacoustic Emission, Electrophysiological Approach and Audiogram Interpretation Technique will be explained.

**SBF101- Basic Anatomy (4 ECTS)**

**SBF102- Physiology (3 ECTS)**

### **TRK101-Turkish Language 1 (2 ECTS)**

Language-thought relationship, language-culture relationship, the importance of language in social life, world languages and the place of Turkish among these languages, its features; the situation and problems of contemporary Turkish; Turkish spelling rules; active reading and listening; general rules of written and oral expression; mental order, paragraph and expression styles; official correspondence.

## **2nd SEMESTER**

### **ATA102-Ataturk's Principles and History of Revolution 2 (2 ECTS)**

Revolutions in the political field, political parties and attempts to transition to a multi-party political life, revolutions in the field of law, regulation of social life, innovations in the economic field, Turkish foreign policy in the period of 1923-1938, Turkish foreign policy after Atatürk.

### **DIL102-General English 2 (2 ECTS)**

In this course, it is aimed that students learn basic expressions about daily life, personal information, family information, shopping, residence, job information, asking and describing directions, public transportation vehicles.

### **AUD102- Acoustic and Phonetic Principles in Audiology (4 ECTS)**

What is phonetics? Introduction to Phonetics. Articulation Points. Suprasegmentals. Acoustic Analysis. Vocal and Consonant Structure of Turkish. Voice and Speech Organization.

### **AUD104-Head and Neck Anatomy and Physiology (3 ECTS)**

This course; head and neck development, bones, basic neuroanatomy and cranial nerves, mimic and masticatory muscles, tongue, pharynx, larynx anatomy, outer-middle-inner ear anatomy, autonomic innervation of the head and neck.

### **AUD106 -Acoustic Physics (4 ECTS)**

This course; vibration motion, wave motion, basic concepts of sound, propagation of sound, speed and intensity of sound waves, sound pressure level, decibel concept and types, acoustic properties of human voice, objective analysis of human voice, Doppler effect and resonance.

### **TRK102-Turkish Language 2 (2 ECTS)**

Types of written expression, types of oral expression, scientific research methods, types of oral presentation.

## **3rd SEMESTER**

### **AUD201-Instrumentation and Calibration in Audiology (5 ECTS)**

This course; Audiological equipments and calibration, Sound Level Meter and Coupler, Immitansmetry Calibration and Middle Ear Physiology, Wideband Tympanometry Usage and Calibration, Audiometers and Calibration, OAE and Calibration, ABR and Calibration, Electrophysiological Stimuli and Recording Methods in Audiology, Hearing Test Rooms and Acoustic Properties , Reverberation and Measurement Principles, Free Field Tests and Calibrations; includes topics.

### **AUD203- Ear Nose Throat Diseases 1 (3 ECTS)**

Diseases of the external ear canal, middle ear problems, otitis media, otosclerosis, conductive hearing loss, congenital hearing loss, sensorineural hearing loss.

### **AUD205- Evaluation of Hearing and Hearing Loss 1 (5 ECTS)**

Within the scope of this course, Anatomy and Physiology of Hearing, Definition and Causes of Hearing Loss, Types, Grades and Configurations of Hearing Loss, Subjective Test Methods of Hearing: Pure Tone Audiometry Masking Techniques, Speech Audiometry Clinical Masking Techniques; Objective Test Methods of Hearing: Immitansmetry, OAE, ABR; Explanation of Hearing Evaluation Findings According to Hearing Loss Types, Hearing Loss and Audiological Evaluation Case Report will be explained.

### **AUD207- Neurological Basis of Communication (2 ECTS)**

This course; definition of the concept of communication, historical background of communication, communication-culture-nature relationship, dimensions of communication, hearing anatomy, hearing physiology, neuroanatomical basis of hearing, neurophysiological basis of hearing, speech anatomy, speech physiology, neuroanatomical basis of speech and neurophysiological basis of speech.

### **AUD209-Individual Approach to Patient in Audiology (1 ECTS)**

In this course, Interview Techniques in Audiology and Patient Psychology, Individual Approach to the Patient: Neonatal and Pediatric Group; Adult Group, Geriatric Group, Multihandicap Group; General Developmental Stages Appropriate for Chronological Age, Developmental Screening Inventories, Adjusted Age Calculation, Versatile Analysis of Hearing Loss Effects are included.

### **SEG001-Manifesto of İstinye 1 (1 ECTS)**

## **4th SEMESTER**

### **AUD202- Hearing Screenings (4 ECTS)**

Within the scope of this course, Effects of Hearing Loss on Human Life, Pre-natal, Peri-natal and Post-natal Risk Factors of Hearing Loss, Purpose and Importance of Hearing Screening, Historical Development of Hearing Screening, National Hearing Screening Protocols, Newborn and Childhood Screenings, Used in Hearing Screenings Test Equipment, Screening Preparation Process and Screening Application, Parent and/or Teacher Informing and Guidance Process After Hearing Screening, Recording Hearing Screening Results in the National Hearing Screening System, Industrial Hearing Screenings, Noise Level Measurement, Protection from the Harmful Effects of Noise, Industrial Hearing Screenings, Employees Information and Referral Process, Case Discussion and General Review will be covered.

#### **AUD204-Ear Nose Throat Diseases 2 (3 ECTS)**

Larynx. Larynx Lesions. Oral Cavity and Its Lesions. Salivary glands and infections. Neck masses and sinuses.

#### **AUD206-Evaluation of Hearing and Hearing Loss 2 (6 ECTS)**

This course covers the subjects of Defining Outer, Middle and Inner Ear Pathologies, Evaluation of External and Middle Ear Pathologies, Evaluation of Pathologies Affecting the Inner Ear, Retrochlear Pathologies, Auditory Neuropathy Spectrum Disorder, Introduction to the Central Auditory System, Central Hearing System Diseases.

#### **AUD208-Rehabilitative Audiology (4 ECTS)**

Hearing loss. Hearing Aids. Cochlear Implant. Language development. Auditory Perception. Auditory Rehabilitation in the Pediatric Group. Auditory Rehabilitation in the Postlingual Group. Music and Auditory Rehabilitation

#### **AUD210-Electrophysiological Evaluation in Audiology (4 ECTS)**

This course; Clinical anatomy and physiology of the auditory system, Introduction to Auditory evoked potentials (basic terminology and concepts), Action and receptor potentials, Otoacoustic emission, Recording of Auditory evoked potentials, Electrocochleography, Auditory Evoked Brainstem Responses, Interpretation of Auditory Evoked Brainstem Response results, Mid-Latency (ASSR) Auditory Steady-State Response), Cortical Potentials, Use of various evoked potentials in diagnostic and rehabilitative audiology, General evaluation; includes topics.

#### **SEG002-Manifesto of İstinye 2 (1 ECTS)**

### **5th SEMESTER**

#### **AUD301- Internship 1 (5 ETCS)**

This course covers the observation of the evaluation, interpretation, planning and follow-up processes of the patient in various fields.

**AUD303-Hearing Aids and Assistive Device Applications 1 (4 ECTS)**

Hearing aid basic systems, Hearing aid types and features, Electroacoustic performance and measurement, Hearing aid and ear molds, Compression systems in hearing aids, Compression and noise reduction methods, Programming of hearing aids, Algorithms used in hearing aids, Hearing aid selection and applications for adults and the elderly , Hearing aid selection and applications in infants and young children, Assistive listening devices, Hearing aid performance evaluations, Hearing aid performance evaluations.

**AUD305- Implant Applications in Hearing Loss 1 (4 ECTS)**

This course; History of Implants, Anatomy, Physiology and Embryology of Hearing, Anatomy of Hearing, Bone Conduction Percutaneous Implants, Bone Conduction Transcutaneous Implants, Active Middle Ear Implants, Active Middle Ear Implants, Preoperative Evaluation of Implants, Implants, Cochlear Implants and Electrode Options, Surgical Approach in Implants General evaluation; includes topics.

**AUD307- Vestibular System and Evaluation (4 ECTS)**

In this course, Vestibular System Anatomy and Physiology, Vestibular Reflexes (Vestibulo-ocular, vestibulo-spinal, vestibulo-colic reflex), Definition, Types and Characteristics of Nystagmus, Vestibular Evaluation: Taking Anamnesis, Physical Examination and Bedside Examination Methods, Videonystagmography (Oculomotor Tests, Static and Dynamic Positional Tests, Caloric Test) Vestibular Evoked Potentials (c-VEMP and o-VEMP), Video Head Impulse Test-VHIT, Computed Posturography Systems will be explained.

**AUD309- Industrial Audiology (2 ECTS)**

This course includes noise definition, noise types, noise measurement and mapping, physiological effects of noise, the effect of noise on hearing, what is vibration, vibration measurement, the effect of vibration on human health, occupational hearing scans, personal ear protectors.

**AUD311- Diagnosis and Interpretation in Audiology (4 ECTS)**

In the content of this course; Differential diagnosis tests and findings of cochlear and retrocochlear pathologies, general information about genetic hearing loss, functional hearing loss, hidden hearing loss, reporting technique in audiology and case examples of different etiologies are included.

**SEG003-Manifesto of İstinye 3 (1 ECTS)**

**Department Elective Course (3 ECTS)**

**Department Elective Course (3 ECTS)**

**6th SEMESTER**

**AUD302- Auditory Processing Disorders (3 ECTS)**

In this course, following topics will be explained to the students:

Auditory Neuroscience and Central Auditory Processing Disorder, Central Auditory System Anatomy and Physiology, Nature of Central Auditory Processing Disorder, Central Auditory Processing Disorder Screening Applications/ Test Battery Selection, Assessment of Central

Auditory Processing Disorder/ Behavioral and Electrophysiological Procedures, Central Auditory Processing Disorder: Aging of the Hearing System/ Elderly Listeners, Auditory Neuropathy Spectrum Disorder, Attention Deficit/Hyperactivity Disorder, Management of Central Auditory Processing Disorder/ Educational Arrangements, Case Studies Presentation.

**AUD304-Hearing Aids and Assistive Device Applications 2 (5 ECTS)**

Hearing loss and central effects, Hearing aid and its components, Personal preparation of the hearing aid, Candidate evaluation and necessary audiological examinations, Evaluation of data, Pattern and modification, Acoustic properties of speech and practical use of this information, Long and short-term speech spectra, Frequency-specific used prefitting evaluations, the use of REM and HIT test, data sheet reading and evaluation, instrumentation in special cases (asymmetric hearing loss), instrumentation in special cases (in pediatric patients, neuropathy), instrumentation in special cases (in geriatric patients); includes topics.

**AUD306- Implant Applications in Hearing Loss 2 (4 ECTS)**

This course; Intraoperative Evaluations in Cochlear Implants, Hybrid Implants and Fitting, Behavioral Fitting Methods in Implants, Electrophysiological Fitting Methods in Implants, Implant Electronics and Speech Processing Strategies, Current Trends in Implant, Auditory Implants, Brainstem Implants, Brainstem Fitting; includes topics.

**AUD308- Vestibular Rehabilitation (5 ECTS)**

This course includes BPPV, meniere, labyrinthitis, neuritis, otosclerosis, perilymph fistula, autoimmune inner ear diseases, central nervous system diseases, vestibular adaptation and compensation.

**AUD310- Speech and Language Disorders (3 ECTS)**

What is the language of this course? What is speech? Articulation disorders, oral-motor evaluation, phonological processing, cleft lip and palate, craniofacial anomalies, Motor speech disorders, Fluency disorders, Voice disorders, Swallowing disorders, Language disorders.

**SBF302- Research Methodology and Biostatistics (3 ECTS)**

**SEG004-Manifesto of İstinye 3 (1 ECTS)**

**Department Elective Course (3 ECTS)**

**Department Elective Course (3 ECTS)**

**7th SEMESTER**

**AUD401- Internship 2 (5 ECTS)**

This course covers the observation of the patient's evaluation, interpretation, planning and follow-up processes in various fields.

**AUD403- Seminar (3 ECTS)**

The course content includes literature review techniques, article reading and analyzing, seminar presentation preparation rules, reference rules, points to be considered in the presentation and student presentations.

**AUD405- Graduation Project 1 (4 ECTS)**

This course; Generating hypothesis, Purpose of the study, Generating a research question, Literature review, Project responsibilities, Writing a summary for the project, Writing an introduction for the project, Writing the materials and methods to be used in the project, Writing the conclusion part for the project, Writing the discussion part for the project, Complying with the rules of the project's resources way of writing; includes topics.

**AUD407- Clinical Practice in Audiology 1 (15 ECTS)**

This course covers the practical application of the evaluation, interpretation, planning and follow-up processes of a patient who comes to the audiology clinic.

**Department Elective Course (3 ECTS)**

**8th SEMESTER**

**AUD402- Graduation Project 2 (4 ECTS)**

This course; What is a project?, How to prepare a project?, Project research, How to do research?, Research Design, Ethics, Ethical rules, Ethical principles, Project Preparation; includes topics.

**AUD404- Clinical Problem Solving in Audiology (6 ECTS)**

Hearing aid, cochlear implant, vestibular system, clinical audiology, auditory rehabilitation and speech, evaluation of difficult cases in electrophysiological methods and problems in clinical devices.

**AUD406- Clinical Practice in Audiology 2 (17 ECTS)**

This course covers the practical application of the evaluation, interpretation, planning and follow-up processes of a patient who comes to the audiology clinic.

**DEPARTMENT ELECTIVE COURSES**

**Psychology (3 ECTS)**

The history of psychology includes fields, methods, theories, behavior and physiology, lifelong development, mental processes, intelligence, personality, abnormal behaviors, health stress and coping, learning, motivation and motivation.

**Pharmacology (3 ECTS)**

The student learns the drugs used in the clinic and the general effects and the points to be noticed during audiology applications.

**Sign Language (3 ECTS)**

**Histology-Embryology (3 ECTS)**

At the end of this course, the student will learn the histological structure of the cells and basic tissues in the human body, their relationship with human anatomy and physiology, embryonic development of the musculoskeletal system and defects.

### **Communication in Health (3 ECTS)**

The concept of communication, the importance of communication in human relations and the factors affecting communication, the basic characteristics and needs of human beings, the cognitive aspect of human and affective process, self, body image, self-esteem, identity concept, self-knowledge and awareness, human behavior characteristics, group dynamics and communication in groups. therapeutic communication and empathy, anger management, conflict and conflict management strategies in interpersonal relationships, communication in special situations and understanding and application of all this information in the field of health

### **Occupational Health and Safety (3 ECTS)**

Basic Concepts of Occupational Health and Safety, Risk Factors and Types, Surveillance of the Environment, Causes of Work Accidents and Occupational Diseases, Preventive Measures and Occupational Safety Culture

### **First Aid (3 ECTS)**

Having self respect, social & environmental sensitiveness and responsibility, adaptation capacity, active ,rationalist, respecting ethics, using time effectively, ability to work as a team member.

### **AUD001- Health Law (3 ECTS)**

This course includes the following topics; What is the health system? Basic concepts related to the health system, Legal Regulations in Health Services in Turkey (Before 1980), Health Transformation Program, International Labor Organization, Patient and Employee Safety, Responsibility of the Administration in Health Services, Turkish Penal Code

### **AUD002- Alternative Communication Methods in Hearing Loss (3 ECTS)**

Within the scope of this course; Introduction to Alternative Communication Methods in Hearing Loss, Alternative Communication Methods in Hearing Loss: Oral (Verbal) Approaches, Oral (Verbal) Approaches: Natural Auditory Method, Natural Auditory Method: Considerations for Parents, Oral (Verbal) Approaches: Auditory Verbal Therapy, Oral Main Differences Between Methods, Alternative Communication Methods in Hearing Loss: Total Communication, Alternative Communication Methods in Hearing Loss: Sign Bilingualism, Controversial Aspects of Alternative Communication Methods in Hearing Loss, Communication Approaches and Cochlear Implants, Alternative Communication Methods in Hearing Loss: Conclusion and Recommendations will be explained.

### **AUD003- Tinnitus and Hyperacusis (3 ECTS)**

This course includes the following topics: Tinnitus mechanism- tinnitus and ear, Classification of Tinnitus, Physiological Pathophysiological Tinnitus, Pathological Tinnitus, Psychological-



Intellectual Causes and Consequences Affecting Tinnitus, Tinnitus, mood, depression, Pathophysiology of Tinnitus, Pseudo-Physiology of Tinnitus, Psychological Approach Objective Connections of Tinnitus, Pseudo Tinnitus - Approach of Psychological Models to Tinnitus, Medical Causes of Tinnitus, Objective Connections of Tinnitus, Evaluation of Tinnitus and Basic Treatment Approaches - Approaches and Protocols to Tinnitus Patients, Overview of TRT, Hyperacusis and Sensitivity to Sound.

#### **AUD004- Music Therapy for Hearing Loss (3 ECTS)**

What is Music, Importance of Music, Spectral Components of Music, Temporal Components of Music, Hearing Loss and Music Perception, Hearing Aid and Music Perception, Cochlear Implant and Music Perception, Rhythm Tests, Pitch Tests, Timbre Tests, Music Perception in Individuals with Prelingual Hearing Loss, Postlingual Hearing Music Perception in Individuals with Loss.

#### **AUD005- Articulation Disorders and Therapy in Hearing Loss (3 ECTS)**

Hearing disorders, typical sound errors in children with hearing loss, auditory habilitation/rehabilitation, amplification, assistive listening devices, auditory training, auditory and manual communication methods.

#### **AUD006- Material Preparation for Hearing Loss (3 ECTS)**

Hearing disorders, therapy of hearing disorders, mental-motor development in hearing impaired, education programs in hearing impaired, education programs and material preparation in hearing impaired.

#### **AUD007- Acoustic Features in Educational Environments (3 ECTS)**

This course; Introduction to Classroom Acoustics, Examining the Concepts of Signal-Noise Ratio and Reverberation Time, , Relation of Sound Reflection, Hearing Loss and Understanding Speech, Problems Caused by Bad Class Acoustics, Improving Classroom Acoustics, Importance of Classroom Acoustics for Hearing Impaired Children, Precautions to be Taken in Classrooms of Hearing Impaired Children , The Role of the Audiologist in Improving Classroom Acoustics.

#### **AUD008- Neurolinguistics (3 ECTS)**

This course includes the following topics: Introduction to neurolinguistics, Evolution and development of the brain, communication and language, Brain, brain lobes and functioning, Neuroanatomy of language, Neurolinguistics for the basic components of language, Executive functions and their evaluation, Special topics in neurolinguistics - The process of reading and writing from a neurolinguistics point of view - NeuroLinguistic aspect of bilingualism - Traumatic brain injury (TBI) - Aphasia - Brain stimulation methods - Neuroimaging methods.

#### **AUD009- Development and Education of the Hearing Impaired Child (3 ECTS)**

Hearing impairment, causes of hearing impairment, classification of hearing impairment, developmental characteristics of a hearing impaired child, auditory listening, language development, importance of early diagnosis, education methods-techniques, education models, infancy education, early childhood education.

### **AUD010- Psychology of Learning (3 ECTS)**

This course covers the following topics: Basic Concepts and Principles of Learning; Factors Affecting Learning, Behavioral Learning Theories - Classical Conditioning - Operant Conditioning, Social - Cognitive Learning Theory, Information Processing Theory, Brain Based Learning Theory, Constructivism, Motivation Theories - Attribution Theory - Self Determination Theory, Effective Learning Methods and Techniques.

### **AUD011-Sociology (3 ECTS)**

This course includes the following topics: sociology, Basic approaches of sociology, Culture and society, Family sociology, Gender relations, Power and society, Social conflicts, City and society, New social movements.

### **AUD012-Genetics and Genetic Hearing Loss (3 ECTS)**

This course covers the following topics: What is a gene? Basic concepts in genetics, Basic concepts of Mendelian genetics, chromosomal theory of heredity, Structure and functions of genes, gene expression and regulation, chromosomal disorders and mutations, Basic principles of population genetics and evolutionary genetics, Embryological development of the hearing system, What is syndromic and non-syndromic hearing loss? , Syndromic Hearing Loss (Usher syndrome, Pendred syndrome, Waardenburg syndrome, Jervell and Lange-Nielsen syndrome, HDR syndrome, Branchio-oto-renal syndrome, Treacher Collins syndrome, MYH9, Mitochondrial hearing loss), Genes responsible for non-syndromic hearing loss, Hearing genetic testing, genetic counseling.

### **AUD013-Fine Arts (3 ECTS)**

The main periods of art history stretching from thousands of years ago to the present, various country schools and some branches of our traditional arts are conveyed together.

### **AUD014-Academic Writing Skills (3 ECTS)**

Within the scope of this course; Basic rules in article writing, Writing the Abstract-Abstract Section, Writing the Introduction (Basic Components and Rules in the Introduction, Opening Sentence and Problem Statement, Purpose and Sub-Objectives, Deficiencies Model), Method Writing According to Qualitative and Quantitative Researches (How to Write Pattern, Model Technique, Population and Sample - Study Group Part, Data Collection Methods and Data Analysis Sections), Writing of Findings, Discussion, Conclusion and Suggestions, Bibliography and Citation, Plagiarism issues will be explained and sample article will be analyzed.

### **AUD015-Vestibular System and Multiple Approaches (3 ECTS)**

Within the scope of this course, Psychiatric Aspects of Vestibular Diseases, Drug Treatments Widely Used in the Treatment of Vestibular Diseases, Multiple Diagnosis Case Examples: BPPV- Meniere's Disease, BPPV- Migrainous Vertigo, Meniere-Migrainous Vertigo, BPPV-Anxiety Disorder, Labyrinth, Central Nervous System and Cervical Injury, Semicircular Canal Dehiscence, Orthostatic Phenomena Hypotension, Vertebrobasilar Insufficiency, Nonspecific Vestibulopathy, Bilateral Vestibular Loss, Congenital Inner Ear Malformations will be explained.

### **AUD016-Counseling Services in Hearing Loss (3 ECTS)**

This course; Course Content, Definition of Family, Family Life Cycle, Week Parent and Child Interaction, healthy family characteristics, Attitudes of families towards their children and their effects on children's development, Disciplinary methods, effects of parental behavior on children, Participation of disabled children in the family and psychological problems seen in families. processes, Stress in families, Counselor-family interaction, Stages to be followed in child development follow-up and counseling to families, Family counseling for children with hearing loss, Methods used in educational activities and guidance for families in educational settings, Methods used in educational studies and guidance for families in educational settings, Case evaluation (presentations), preparation for the final exam; includes topics.

### **AUD017-Geriatric Audiology (3 ECTS)**

This course includes the following topics: aging, classification of aging, executive functions in the geriatric population, Normal aging, Mild Cognitive Impairment and Dementia, Age-related changes in the auditory system, Presbycusis and types of presbycusis, Audiological findings in the geriatric population, Amplification systems and management in the geriatric population, Educational counseling and auxiliary communication systems in the geriatric population, Age-related changes in the vestibular system, Multidisciplinary approach in the geriatric population, Psychosocial consequences of hearing disorders.

### **AUD018-Pediatric Audiological Tests (3 ECTS)**

This course includes; The importance of hearing in children, hearing test protocols in children, selection of the appropriate test protocol, Behavioral Observation Audiometry (BOA), Visual Reinforcement Audiometry (VRA), Conditioned Play Audiometry, evaluation of functional hearing and speech perception in the pediatric group, middle ear measurements in infants and children, otoacoustic emissions and auditory evoked potentials, vestibular function assessment and management in the pediatric group with hearing loss.

### **AUD019-Counseling in Communication Disorders (3 ECTS)**

This course includes the Concept of Communication, Elements of Communication, Language and Speech Development in Normally Developing Children, Definition and Classification of Speech and Language Disorders, Characteristics of Children with Speech and Language Disorders, Causes of Communication Disorders, Educational Approach to Children with Communication Disorders, Special Conditions with Communication Disorders (Hearing Loss, Traumatic Brain Injury, Mental Disability, Cerebral Palsy, Autism), Advice to Families of Children with Communication Disorders.

### **AUD020-Speech Perception (3 ECTS)**

This course includes the following topics: Speech chain, Neural basis of speech perception, Speech perception theories, Categorical speech perception, Cognitive processes in speech perception, Plasticity in speech perception, Cortical asymmetry in speech perception, Sight in speech perception, Speech perception in hearing loss, Brain stimulation in speech perception methods.

### **AUD021-Health Professional Ethics (3 ECTS)**

It covers topics such as basic concepts of audiology and ethics, ethical principles, patient/elder rights, and major medical ethical issues.

### **AUD022-Auditory Perception Processes (3 ECTS)**

This course; Anatomy and physiological basics of the peripheral hearing system, Anatomy of the central hearing system, Physiology of the central hearing system, Functions of the outer and inner hair cells, The concept and formation of the tuning curve, Auditory neural processing with phase locking, Directionality in hearing, Hearing with both ears, Hearing in noisy environments, Testing of central auditory processing, Introduction to central auditory processing disorders, Attention in the auditory system, Dichotic tests, General evaluation; includes topics.

### **AUD023-Career Planning in Audiology (3 ECTS)**

In this course, Sectoral Perspective on Audiology: Examples from Turkey and the World, Career Planning and Self-Recognition Process, Professional Responsibilities and Ethical Principles (Health Ethics, Research Ethics, Animal Experiment Ethics), CV Preparation, Job Interview Preparation, Communication in Work Environments , Audiology Clinic Establishment Process, Hearing Aid Center Opening Process, Career Planning: Being a Clinical Audiologist, Being an Audiologist in a Rehabilitation Center, Being an Audiologist in Hearing Aid Companies, Being an Audiologist in Auditory Implant Companies, Academic Career in Audiology and Abroad Experience in Audiology will be discussed.