**T. C.**

**ÜSKÜDAR UNIVERSITY FACULTY OF HEALTH SCIENCES DEPARTMENT OF AUDIOLOGY COURSE CONTENTS FIRST GRADE**

**1st TERM (FALL)**

**TURK101 Turkish Language - I (2 + 0) 2 ECTS: 3**

What is language and culture? Language-Culture Relationship, What is the place of Turkish in the world languages? What is Polish-Dialect-Mouth? Spelling (Spelling) Rules, Phonetic and Syllable, Vocabulary, Sentence, Elements of Sentence, Some Speech Characteristics of Turkish.

# ING101 English - I (3 + 0) 3 ECTS: 3

This course is designed for beginners of English and aims to develop basic language skills. It helps learners to acquire listening, speaking, reading and writing skills through different teaching techniques and practice studies. Learners learn basic grammar patterns and vocabulary using dialogues and texts used in situations encountered in real life. At the end of this course, learners are prepared to progress from English to beginner to intermediate to beginner level.

# ATA101 Atatürk's Principles and History of Turkish Revolution I (2 + 0) 2 ECTS: 3

Turkish recognition features and the similar concept of revolution, of his reforms in the Ottoman Empire before the Turkish Revolution, the Turkish War of Independence, the proclamation of the Republic, Ataturk importance of revolutions and Atatürk Reforms threats to events in the birth and development of modern Turkey, ideas and principles.

# SBF141 Basic Anatomy (2 + 0) 2 ECTS: 3

In this course, the anatomy science and the topics of interest to the musculoskeletal system anatomy, nervous system anatomy, circulatory system, digestive system, head and neck anatomy and sensory organs will be discussed in a systematic manner.

# SBF149 Basic Genetics (2 + 0) 2 ECTS: 3

The role and importance of genetics and molecular biology in medicine, the structure of genetic material, proliferation and protein synthesis, mutations in DNA, repair mechanisms of mutations,

cytogenetic, molecular cytogenetic and molecular diagnostic methods used in medical genetics, molecular technologies, common single gene diseases, heredity theory and Mendelian genetics, autosomal and gonosomal inheritance patterns and examples of inherited diseases according to these patterns, cell cycle, proliferation and control, mitosis and meiosis division, sex and development, basic molecular mechanisms of cancer development, prenatal and postnatal diagnostic methods, genetic applications to provide knowledge and skills to explain the ethical dimension.

# SBF128 Basic Physiology (3 + 0) 3 ECTS: 5

In this course, starting from the basic functions of the cell to the functions of the systems in the human body, the physiological characteristics of the human organism will be discussed.

# ODY109 Introduction to Audiology (3 + 0) 3 ECTS: 4

In this course, introduction of audiology and audiologist, basic anatomy and physiology of hearing and balance system, basic audiological test battery and basic audiological rehabilitative approaches will be discussed at the introductory level.

# SBF142 Biophysics (2 + 0) 2 ECTS: 3

This course deals with various topics such as Biophysical Properties of Body Fluids, Regulation of Acid-Base Balance in Organism, Membrane Transport Mechanisms, Action Potentials, Hearing Biophysics, Effects of Electric Currents on Tissue.

# ODY115 Child Development and Hearing Impairment (2 + 0) 2 ECTS: 2

The aim of this course is to give detailed information about the developmental stages of normal and hearing impaired children. Motor, social, cognitive, language, speech and auditory development areas are examined.

# RKUL101 University Culture (0 + 2) 1 ECTS: 1

This course aims to provide the students with the intellectual knowledge about social, cultural and political events, to be open to multidisciplinary knowledge process outside of their general curricula, to gain the ability to think critically and questioningly and to act analytically. The student will also have the ability to comment by attending seminars of experts in the fields of

science, technical, social, political and cultural issues that are discussed outside the public domain. Students will attend approximately 48-50 seminars and programs during their university life.

# FIRST GRADE 2nd TERM (SPRING)

**TURK102 Turkish Language - II (2 + 0) 2 ECTS: 3**

Punctuation, Speech Disorders, Written Composition, Oral Composition, Beautiful and Effective Speech.

# ING102 English - II (3 + 0) 3 ECTS: 3

This course is designed for beginner learners of English and aims to develop basic language skills. It helps learners to acquire listening, speaking, reading and writing skills through different teaching techniques and practice studies. Learners learn basic grammar patterns and vocabulary using dialogues and texts used in situations encountered in real life. At the end of this course, learners are prepared to progress from English to beginner to intermediate to beginner level.

# ATA102 Atatürk's Principles and History of Turkish Revolution-II (2 + 0) 2 ECTS: 3

Turkish recognition features and the similar concept of revolution, of his reforms in the Ottoman Empire before the Turkish Revolution, the Turkish War of Independence, the proclamation of the Republic, Ataturk importance of revolutions and Atatürk Reforms threats to events in the birth and development of modern Turkey, ideas and principles.

# ODY130 Basic Histology-Embryology and Microbiology for Audiologists (3 + 0) 3 ECTS: 3

In this course, microscope systems, cell histology, tissues and general embryology, organs and circulatory system, development and histology of nervous systems and histological features of sensory organs, especially ear, types of microorganisms such as viruses, bacteria, fungi, types

 affecting on hearing, laboratory assessment methods in the environment, the effects of diseases on the occurrence will be discussed.

**ODY110 Basic Otorhinolaryngology (2 + 0) 2 ECTS: 3**

In this course, basic otorhinolaryngology knowledge, evaluation methods, diseases, medical and surgical applications used in ENT practice will be given.

**ODY114 Audiological Evaluation Methods I (2 + 4) 4 ECTS: 5**

In this course, the most important topics of the basic audiological test battery, pure audio audiometry, speech audiometry, clinical masking, tympanometry and acoustic reflex measurements, advanced immitansmetric measurement methods will be discussed with detailed theoretical and practical applications.

**RKUL102 University Culture II (0 + 2) 1 ECTS: 1**

This course aims to provide the students with the intellectual knowledge about social, cultural and political events, to be open to multidisciplinary knowledge process outside of their general curricula, to gain the ability to think critically and questioningly and to act analytically. The student will also have the ability to comment by attending seminars of experts in the fields of science, technical, social, political and cultural issues that are discussed outside the public domain. Students will attend approximately 48-50 seminars and programs during their university life.

**SBF144 Neuroanatomy (2 + 0) 2 ECTS: 3**

This course is about the general concepts and structure of the nervous system, macroscopic anatomy and physiology of the central nervous system, medulla spinalis, truncus cerebri, formatio reticularis, cerebellum, structure and functions of the medulla spinalis, cranial nerves, basal ganglia, diencephalon, vision and hearing pathways, autonomic nervous system, telencephalon.

# RPSI109 Positive Psychology and Communication Skills (3 + 0) 3 ECTS: 5

In this course, the definition of positive psychology, basic concepts, theoretical foundations and applications, socio-emotional experience and behavior, to examine the brain-behavior systems examined in the cognitive sciences. Recognition of yourself and others, Awareness and Empathy, Psychosocial Life Skills and Problem Solving Skills, Motivation and Planning, Anger, Aggression and Violence, Relationship Management and Healthy Decision Making, Persistence and Reconciliation were discussed.

**ODY120 Acoustic Physics (2+0) 2 ECTS: 3**

In this course, the formation, behavior, properties and acoustic structure of wave movements are examined. Calibration principles of measurements between the human ear and instruments, the acoustic structure and phonetic features of speech, and its progression in the outer and middle ear will be explained.

# SECOND GRADE Ist TERM (FALL)

**ODY231 Vestibular System and Evaluation Methods I (2 + 2) 3 ECTS: 5**

Information is given about the test methods used in the evaluation of the vestibular system such as electronistagmography, videonistagmography, posturography, caloric tests.

# ODY203 Audiological Evaluation Methods II (2 + 4) 4 ECTS: 6

In this course, evaluation methods such as electrocochleography, otoacoustic emission, auditory brainstem response, ASSR, which are the most important topics of diagnostic audiological test battery, will be discussed with the help of both detailed theoretical and practical applications.

# ODY233 Pediatric Audiology (1 + 2) 2 ECTS: 3

In this course, general characteristics, pathophysiology, special audiologic test methods used in infancy and childhood diseases, general characteristics of electrophysiological test methods will be given.

# ODY235 Instrumentation and Calibration (1 + 2) 2 ECTS: 3

This course focuses on the introduction of the tools, equipment and computer programs used in the field of audiology, the principles of use, the introduction of the "sound level meter (SLM) and its equipment" used in the calibration of these devices, the standards used during calibration and application principles.

# RPRE104 Entrepreneurship and Project Culture (2 + 0) 2 ECTS: 3

This course provides comprehensive information about how to apply the graduation product instead of the graduation project. It includes bringing together all academics involved in setting student-centered, real-life goals, discovering new things, problem solving, time management skills, and community service.

# ODY239 Language and Speech Science (2 + 0) 2 ECTS: 3

In this course, the main areas of interest in linguistics, components of language, phonology, articulation, language acquisition theories will be discussed.

# SECOND GRADE 2nd TERM (SPRING)

**ODY230 Electrophysiological Test Methods in Audiology (1 + 2) 2 ECTS: 4**

In this course, general characteristics of electrophysiological tests such as mid-latency, late latency, P300, MMN used in the evaluation of auditory pathways at the central nervous system level will be discussed and their distinctive features in diagnostic audiology.

# ODY232 Hearing Screening (2 + 0) 2 ECTS: 2

The aim of this course is to give detailed information about the philosophies of newborn hearing screening, pre-school and school hearing screening and occupational hearing screening, methods and methodology.

# ODY234 Vestibular System and Evaluation Methods II (2 + 2) 3 ECTS: 5

Information is given about the test methods used in the evaluation of the vestibular system such as electronistagmography, videonistagmography, posturography, caloric tests.

# ODY210 Introduction to Amplification Applications (2 + 2) 3 ECTS: 4

The aim of this course is to give the students the basic information about the cochlear implants by dealing with the components, types and technology of hearing aids, parts, technology of cochlear implants, signal processing methods in cochlear implants.

# ODY236 Clinical Practice - I (0 + 6) 3 ECTS: 6

The aim of this course is to provide the students with the opportunity to apply the theoretical knowledge they have learned in clinical settings and to strengthen their professional skills and knowledge.

# ODY200 Industrial Audiology (2 + 0) 2 ECTS: 2

The aim of this course is to give information about industrial noise, vibrations, explosions and noise related hearing loss, assessment and treatment of industrial noise protection methods and noise related hearing loss.

# THIRD GRADE 1st TERM (FALL)

**ODY333 Audiological and Vestibular Evaluation with Cases (3 + 2) 4 ECTS: 4**

In this course, it is aimed to develop the student's reasoning ability for audiological diagnosis by interpreting the existing audiological findings on real patients in order to establish the philosophy about the differential diagnosis of hearing and balance system diseases in the student.

# ODY305 Central Auditory Processing Disorders (3 + 0) 3 ECTS: 5

In this course, anatomy, physiology, auditory neuroscience, evaluation methods used in auditory processing disorders, differential diagnosis criteria, auditory therapy methods applied in auditory processing disorders will be covered.

# ODY307 Hearing Aid Selection and Application Principles (2 + 2) 3 ECTS: 5

In this course, the selection criteria of hearing aids in infants, children and adults, adjustments of hearing aids, issues that are important when setting up a hearing aid, patient follow-up with hearing aids, orientation, acclimatization will be discussed.

# ODY309 Vestibular System Diseases and Rehabilitation (1 + 2) 2 ECTS: 4

In this course, strengthening, adaptation exercises and therapy maneuvers used in rehabilitation of balance disorders resulting from vestibular system diseases will be discussed both theoretically and practically.

# ODY313 Turkish Sign Language - I (2 + 0) 2 ECTS: 3

In this course, the basic features of Turkish Sign Language, grammatical structure, application forms, finger alphabet will be discussed in the form of practical application.

**ODY311 Basic Principles of Auditory Rehabilitation (0 + 2) 1 ECTS: 3**

Communication and rehabilitation methods for infants, children and adults will be covered in this course. Hearing aid training applications, pre and post cochlear implant training applications, auditory verbal therapy applications, auditory training, development of auditory perception skills, total communication applications will be discussed in theoretical and practical ways.

# THIRD GRADE 2nd TERM (SPRING)

**ODY300 Auditory Rehabilitation with Cases (0 + 2) 1 ECTS: 3**

In this course; By using examples from auditory rehabilitation patient cases, the process followed before rehabilitation, rehabilitation planning and rehabilitation practices specific to the individual's needs will be discussed.

# ODY308 Cochlear Implant Selection and Application Principles (2 + 2) 3 ECTS: 5

In this course, cochlear implant selection criteria in infants, children and adults, cochlear implant adjustments, important issues when setting up cochlear implants, patient follow-up with cochlear implant and orientation will be discussed.

# ODY318 Special Topics in Audiology (1 + 2) 2 ECTS: 4

In this course, brainstem implants, middle ear implants, bone path implants, electrical electrophysiological measurement methods, electroneurography will be discussed.

# ODY314 Turkish Sign Language - II (2 + 0) 2 ECTS: 3

In this course, the basic features of Turkish sign language, grammatical structure, application forms, finger alphabet will be discussed in the form of practical application.

# ODY334 Clinical Practice - II (0 + 6) 3 ECTS: 6

The aim of this course is to provide the students with the opportunity to apply the theoretical knowledge they have learned in clinical settings and to strengthen their professional skills and knowledge.

# SBF111 Public Health (2 + 0) 2 ECTS: 3

Historical Development Stages of Public Health, Philosophy of Public Health, General Objectives of Public Health, General Principles of Public Health, Health Services, Health and Disease Definitions, Factors Affecting Health and Disease, Health Protection and Development Early Diagnosis Screening and Importance, Hearing Screening, Health Education , Globalization and Health and so on. topics are covered.

**ODY302 Music and Play Therapy for Hearing Impaired (2+0) ECTS:3**

The aim of this course; to provide information about music and games, which have an important place in the development of children, to learn about music and games according to the developmental stages of children, to determine the games for different developmental levels, to organize programs about musical games that are suitable for supporting auditory skills in individuals with hearing loss/disorder.

# FOURTH GRADE 1st TERM (FALL)

**ODY421 Clinical Study - I (0 + 16) 8 ECTS: 16**

The treatment and evaluation approaches used in the field of audiology are reviewed and their knowledge and skills are improved.

# ODY427 Graduation Project I (0 + 6) 3 ECTS: 6

Within the scope of this course, it is aimed that the students will reinforce their education both theoretical and practical aspects and make their first academic career with a scientific project in Audiology.

**ODY418 Sensory Integration Therapy for Audiologists (2+0) ECTS:3**

The aim of this course, to understand the concepts and theories related to sensory integration, to provide information about basic knowledge, evaluation and treatment techniques, about the senses and their integration development, and the effects of the senses on the sensory perspective and human behavior in the learning process.

# FOURTH GRADE 2nd TERM (SPRING)

**ODY422 Clinical Study - II (0 + 16) 8 ECTS: 16**

The treatment and evaluation approaches used in the field of audiology are reviewed and practical knowledge and skills are improved.

# ODY430 Graduation Project - II (0 + 6) 3 ECTS: 6

Within the scope of this course, it is aimed that the students will reinforce their education both theoretical and practical aspects and make their first academic career with a scientific project in Audiology.

**ISG262 Advanced Statistics (3+0) 3 ECTS: 5**

Within the scope of this course, analysis of variance and covariance: ANOVA, MANOVA and Cluster analysis, T tests, Discriminant analysis, Reliability and Validity analysis, Exploratory and Confirmatory Factor Analysis, etc. topics are covered.

**SBF145 Research Methods in Health Sciences (3+0) 3 ECTS: 4**

In this course, all the steps of research planning are explained. In research planning, determining the appropriate study method, forming control groups and accessing data sources are examined.