

AUDIOMETRY PROGRAM 2024-2025 COURSE CONTENTS

SEMESTER I

ATA103 Principles of Atatürk and History of Revolutions I

(2+0), ECTS: 2

Revolution, evolution, rebellion, coup and reform. The characteristics of the Turkish Revolution. Industrial Revolution, The French Revolution, The reasons of collapse of the Ottoman Empire (19th Century), Reforms (Tanzimat and Islahat), Constitutional monarchy (First and Second), The Balkan Wars. First World War and input to war Ottoman Empire. The fronts that Ottoman Empire fought and the results of the war. Mondros Armistice Agreement and occupations on the Ottoman Empire. National Independence War. The occupation of Izmir and effects of this occupation. The preparation period of National Independence War, The movement of Mustafa Kemal to Samsun and to be started the organization of Anadolu Revolution. Amasya Circular, Erzurum and Sivas Congresses, to be founded of the Deputation. Opening of the TBMM. Rebellions against the TBMM. Sevr Treaty. To be founded "Kuva-yı Milliye" and national army. Construction of national army; human, money and equipment resources, I. II. İnönü, Kütahya-Eskişehir ve Sakarya Meydan Muharebeleri ile Büyük Taarruz East front, West Front: I. İnönü War I and Conference of London, Moscow Treaty. First constitution of the Turkish Grand National Assembly, İnönü War II, Battles of Kütahya and Eskişehir, Sakarya War and the conclusions; Ankara Treaty, Ideological differentiation in the the Turkish Grand National Assembly, The Great offensive, Mudanya cease-fire agreement, Peace Treaty of Lausanne, Abolishment of the Saltanate.

ENF118 Biophysics

(2+0), ECTS: 2

Introduction to Biophysics, Bioenergetics, Metabolism and ATP, Membrane structure, Membrane transport, Action potential, Information theory and cybernetics, Biophysics of Hearing, Visually biophysics, respiratory biophysics, Respiratory biophysics, brain functions and electrical activity of the brain, Transduction in skeletal muscle, Cardiac muscle and operation, Radiation biophysics, Biophysical bases of medical imaging systems.

INGU103 English I

(2+0), ECTS: 2

Nice to meet you; This is a book; Grammar: articles, singular/plural nouns, There is/There are, countable/uncountable nouns, quantifiers, I work in a bank; Grammar: Simple Present Tense, Adverbs of frequency, I have got a nice family; Grammar: have got/has got, object pronouns; possessive adjectives, I can run fast/I must study harder; Grammar: can/can't, must/mustn't, I was at home/She studied English last night; Grammar: was/were, Simple Past Tense, Revision (unit 1-7), I am reading a book now; Present Continuous Tense, Conjunctions (and-but-so-because), Fenerbahçe is the best football team in Turkey; comparative and superlative, Revision (unit 9-11), General Revision

ODT110 Hearing and Measurement I

(2+2), ECTS: 5

Peripheral Hearing System Anatomy and Physiology-Introduction, (Pract: Laboratory Introduction), Peripheral Hearing System Anatomy and Physiology-Outer Ear, (Pract: Otoscopic Examination), Peripheral Hearing System Anatomy and Physiology-Middle Ear, (Pract: Stimulus Types and Stimulus Delivery Channels), Peripheral Hearing System Anatomy and Physiology-Inner Ear, (Pract: Hearing Threshold Detection 1), Peripheral Hearing System Anatomy and Physiology-Inner Ear, (Pract: Hearing Threshold Detection 2), Introduction to Pure Tone Audiometry (Pract: Pure tone audiometry display, General Repetition (Pract: General Repetition), What is sound: Characteristics of sound waves,

frequency, wavelength, pure sound, noise types (Pract: Presenting different stimuli), Diapason Tests (Pract: Performing diapason tests with a tuning fork and/or bone vibrator), Pure Tone Audiometry (Pract: Pure tone audiometry), Pure Tone Audiometry 2 (Pract: Pure tone audiometry), Pure Tone Audiometry 3 (Pract: Pure tone audiometry), Speech Audiometry (Pract: Speech audiometry), Speech Audiometry 2 (Pract: Speech audiometry)

ODT109 Professional Technology (Program Elective)

(1+2), ECTS: 4

Introduction to the Course and Information on the Course Flow Practical Course: Introduction to the Audiology Laboratory, What is Otoscope and Information about its Types Practice lesson: Taking Students to the Laboratory in Groups and Performing Individual Otoscopic Examination ?, Types and General Features of Instruments Used in Immittance Examination Practice lesson: Taking Students to the Laboratory in Groups and Performing Individual Otoscopic Examination, Audiometer Types-Transducer Types Practice lesson: Introduction to immittance measurement instruments, Audiometer Types-Transducer Types Practice lesson: Detailed introduction of the AC40 model, one of the audiometry types, Introducing Converter Types, Audiometer Types-Transducer Types Continued Practice lesson: Detailed Introduction of AC40 Model, one of the Audiometry Types, continued, Introduction of Transducer Types, General review of the first six weeks of theoretical and practical courses, What is Calibration, When is Calibration Required, Calibration Standards in Turkey Practical lesson: Introducing the AD629 Audiometer Model, Audiometric Zero, Headphone and Bone Vibrator Cords Controls, Noise Controls, , Practice lesson: Introduction to screening audiometer types, Distortion and Frequency Shift Controls, Speech Level Control, Control of Remotes, Bone Vibrator Control, Talk Forward Control, Practice lesson: Audiometer Types, Reviews on Transducers, Biological Calibration Practice lesson: Reviews on types of audiometers, Calibration of Audiometry Practice lesson: Introducing computer-based audiometry, What is SLM, What are the Types of SLM, What are SLM Tasks? Practice Lesson: Reviews Audiometer and Transducer Types, Overview: Practice Lesson: Reviews Audiometer and Transducer Types

RPSI209 Positive Psychology and Communication Skills (University Elective)

(2+0), ECTS: 3

Description and Basics of Positive Psychology, Theoretical Basis of Positive Psychology, Introduction to Cognitive Neuroscience- Cerebral Basis of Social Behavior, Science of Happiness, Practice of Positive Psychology- Emotional Intelligence, Practice of Positive Psychology, Self-Awareness, Familiarization with others and Empathy, Communication Skills, Motivation and Planning, Problem Solving Skills, Anger Management, Relationship Management, Resilience, Healthy Decision Making, Conflict Management.

ODT103 Acoustic Physics (Program Elective)

(2+0), ECTS: 3

What is sound?, characteristics of sound, sound events, factors affecting sound, effects of sound on hearing physiology.

MYO101 Basic Anatomy and Physiology

(3+0), ECTS: 4

Introduction to Anatomy and Physiology and short terminology, axes, planes, terms describing direction and direction; general information, Cell Theory, Structural properties, Cell organelles, Cell division; Drug exchange, Metabolism, Locomotive System Anatomy and Physiology- Osteology, Locomotor System; The Artroloj; General information, types of joints, movements. The Myoloj; Anatomy, Mechanism of contraction, Striated muscles, cardiac muscle, smooth muscle physiology. Cardiovascular system Anatomy and Physiology. Blood: tasks, components, shaped elements of blood, blood groups. Calcium metabolism, heart sounds. Heart cavities, veins. Respiratory system Anatomy and Physiology. Nose, Paranasal muscles, Larynx, trachea, Lungs. Respiratory Physiology, Ventilation, Diffusion,

Perfusion, Respiratory Regulation. Digestive System Anatomy and Physiology I. Mouth anatomy, Masticatory muscles, Pharynx, Oesophagus, Stomach, Thin-thick biceps, Kc. Biliary sac, Pancreas, Digestive glands. Digestive System II. Digestion in the mouth, digestion in the stomach, thin-thick bums. KCl. functions, CHO digestion, Digestion of fat-proteins. Vitamin-Mineral-Electrolyte functions. Urinary System Anatomy and Physiology. Kidney function, nephron, urine formation, fluid-electrolyte balance. Distribution of water in organism, Electrolytes-exchange-base balance. Renin-angiotensin system. Genital organs-reproductive physiology. Female and male genital organs. Hormonal control of the reproductive system, hypothalamus, hypophysis, gonadotropic hormones. Ovary hormones, reproductive cycle. Endocrine system anatomy and physiology. Endocrine glands, functions. Physiological functions of hormones, classification. Hormones and target cells. Anatomy and Physiology of the nervous system. Development of nerve tissue, types of neurons, neurons, functions, synapses, neuroglial cells. CNS and PNS, Sense organs, Anatomy and Physiology. Vision, hearing and balance.

TURK103 Turkish Language I

(2+0), ECTS: 2

What is Language? Place and historical development of Turkish Language among, Problems of Turkish Language by using the up-to-date texts. Writing conjunctions of “de”, “ki” and “mi” by using the up-to-date texts. Problems about writing Turkish vocabularies by using compiled texts. To examine a text: Examining a scientific text. Applications about spelling rules and punctuation rules, To examine a text: Examining a column text. Applications about Expression corruption, language mistakes. Turkish Language as a scientific language by using sample texts. Oral presentation applications

RKUL103 University Culture I (University Elective)

(0+2), ECTS: 4

Each semester includes seminars, conferences, panels, workshops and talks to be held for 14 weeks within the framework of a program consisting of suggestions from the academic units, student council and student clubs at the university.

SEMESTER II

ATA104 Principles of Atatürk and History of Revolutions II

(2+0), ECTS: 2

Peace Treaty of Lausanne, Periods of Lausanne Conference, Articles of Treaty of Lausanne and their evaluations, Declaration of Republic, Abolishment of Caliphate, Transition to multi-party political, Law Revolution, Revolutions in the social field, Revolutions in the fields of Education, Economy, Finance, Turkish foreign policy between the years of 1923-1938, Turkish foreign policy between the years of 1938-1950, The government of Democratic Party and the time of Adnan Menderes, The military coup of 1960 and the following political developments, Turkish internal politics between the years of 1980-2002. The basic principles of Turkish Revolution. Revolutions of Atatürk, Rationalism and Scientific Thought; Republicanism, Populism, Nationalism and Etatism; Secularism and Revolutionarism.

INGU104 English II

(2+0), ECTS: 2

Demonstrative Pronouns, Possessive Pronouns, Past Continuous Tense, Exercise on Reading & Vocabulary (Simple Past Tense & Past Continuous Tense), Preposition of Time and Place, Present Perfect Tense, Revision(Ünite 1-5), Possessive "s", Adverbs of manner, Future Tense, Making Suggestions & Requests, Gerunds – Infinitives, Modals (must, should, have to, don't have to, may), General revision (Units 7-12).

ODT116 Hearing System Diseases

(2+0), ECTS: 3

Hearing loss, Outer Ear Diseases, Middle Ear Diseases, Inner Ear Diseases, Types of Hearing Loss, Subjective Differential Diagnostic Tests, Functional Hearing Loss, General Evaluation.

ODT100 Hearing and Measurement II

(3+2), ECTS: 6

Introduction to the Lesson Practice lesson: Introduction to hearing test practice in quiet cabins in the audiology laboratory, Pure Tone and Speech Audiometry Practice lesson: Introduction to hearing test practice in quiet cabins in the audiology laboratory, Audiometers and Transducers, Hearing Loss Types and Degrees, Tuning Fork Tests Practice Lesson: Tuning fork tests practice, Clinical Masking Practice lesson: Application in a quiet booth for clinical masking, Masking-Air Conduction Practice lesson: Practice in a quiet booth for hearing testing, Clinical Masking-Air Conduction Practice lesson: Practice in a quiet booth for hearing testing, General review of the first six weeks of theoretical and practical courses, Clinical Masking-Bone Conduction Practice lesson: Application in a quiet booth for clinical masking, Clinical Masking-Bone Conduction Practice lesson: Application in a quiet booth for clinical masking, Clinical Masking-Speech Practice lesson: Practice in a quiet booth for clinical masking, Clinical Masking-Speech Practice lesson: Application in a quiet booth for clinical masking, Patient Examples and Cases Practice lesson: Performing clinical masking in a quiet cabin, Patient Samples and Difficult Cases Patient Examples and Cases Practice lesson: Performing clinical masking in a quiet cabin, General Evaluation Practice lesson: Performing clinical masking in a quiet cabin.

ODT114 Communication Techniques in Audiometry (Program Elective)

(2+0), ECTS: 2

Course flow presentation and course introduction, What is Communication? What are the basic concepts in communication?, Examining story-taking techniques. What is empathy and its steps?, Examining story-taking techniques. What is body language?, Communication methods with pediatric patients and their families, Communication and story-taking techniques with adult and elderly patients, General review of the first six weeks of theoretical courses, to families of individuals with hearing loss, Student assignment presentation

ODT112 Basic Medical and Biological Sciences**(3+0), ECTS: 4**

Introduction to histology and its methods of study, The cell, Epithelial Tissue, Connective Tissue, Cartilage and bone tissue, Nerve Tissue, Muscle Tissue, Introduction to Medical Microbiology, Morphological and Characteristic Features of Medical Bacteriology, Bacterial Metabolism and Uremia, Bacterial Genetics, Bacterial Virulence Factors, Antimicrobial Agents, Medical Bacteriology, Medical Virology, Medical Parasitology, Medical Mycology, Microorganisms and microorganism human relationships, Sterilization, Disinfection and Antisepsis, Fundamental Immunology, General Principles of Laboratory Diagnosis.

TBG103 Medical Biology and Genetics**(2+0), ECTS: 4**

Introduction to the Course and Orientation, Introduction to Medical Biology and Genetics, Biomolecules, Cell Structure, Organelles and Tasks, Nucleic Acids, DNA and RNA Structure, Cell division, Replication, Transcription, Protein Structure, Translocation and Regulation, Chromosome and Gene Mutations, Hereditary Diseases, Genetic Engineering and Biotechnology, Recombinant DNA Technology.

TURK104 Turkish Language II**(2+0), ECTS: 2**

Oral presentation applications, What is Language? Place and historical development of Turkish Language among, Problems of Turkish Language by using the up-to-date texts. Writing conjunctions of “de”, “ki” and “mi” by using the up-to-date texts., Problems about writing Turkish vocabularies by using compiled texts. To examine a text: Examining a scientific text. Applications about spelling rules and punctuation rules, To examine a text: Examining a column text. Applications about Expression corruption, language mistakes. Turkish Language as a scientific language by using sample texts, Oral presentation applications.

RKUL104 University Culture II (University Elective)**(0+2), ECTS: 4**

Each semester includes seminars, conferences, panels, workshops and talks to be held for 14 weeks within the framework of a program consisting of suggestions from the academic units, student council and student clubs at the university.

SEMESTER III

ODT227 Electrophysiological Test Methods

(2+2) ECTS: 6

Introduction to Electrophysiological Test Methods (Pract: Introduction of devices), Immitancemetric Measurements (Pract: Probe selection), Tympanometry (Pract: Tympanometric test application), Eustachi Tube Function Test (ETF) (Pract: Applying ETF tests), Acoustic Reflex Measurement (Pract: Acoustic reflex test application), Reflex Decay, Resonance Frequency, Fistula Test (Pract: Applying test), Otoacoustic Emission (OAE) (Pract: Applying test), Transient Evoked OAE (TEOAE) (Pract: Transient Evoked OAE (TEOAE), Distortion Product OAE (DPOAE) (Pract: Distortion Product OAE (DPOAE), Introduction to Auditory Evoked Potentials (Pract: Areas of use), Brainstem Responses (ABR) (Pract: Applying test).

ADS211 Sign Language I (Program Elective)

(0+2) ECTS: 3

Introduction of Turkish Sign Language, Hand and Finger Shapes, Position of Hands in Relation to Body, Function of Mimics, Single and Double Handed Use, Relationship of Signs with Turkish, the Sign and Original Expression Format, Hand-Body Harmony and Facial Expression-Message Harmony, Using Sign Language and Verbal Communication Together, Controlling Lip Movement, Greetings, Communicating with Hearing Impaired Individual Using Turkish Sign Language, Transferring Feelings and Thoughts, Understanding the Other Side, Presentation-Application.

ODT225 Hearing Aid and Application Principles

(2+2) ECTS: 6

Introduction to hearing aids and sharing the course flow Practical lesson: Introduction to the hearing aid laboratory, History of hearing aids Practical lesson: Introducing hearing aid types in the hearing aid room, Hearing Aid Components course "Hearing Aid Parts" topic+BTE device features Practical lesson: Hearing aid parts operation, Hearing Aid Components course "Hearing Aid Parts" topic+RIC,ITE,ITC,CIC hearing aid features Application lesson: Hearing aid parts operation, Hearing Aid Components course "Hearing Aid Parts" topic+ Microphone and amplifier features Application lesson: Hearing aid parts operation, Hearing Aid Components course "Hearing Aid Parts" topic+Compressor, Analog-Digital Converter, Digital-Analog Converter, Filters, Speakers, Acoustic Damper, Batteries Application lesson: Hearing aid parts operation, Ear mold and its types Practical Lesson: Application of ear mold types ? Ear print taking and its stages Practical lesson: Taking ear prints, processing algorithms Practical lesson: Ear impressions and hearing aid parts, Real Ear Measurements (REM) in Hearing Aids Practice Lesson: REM practice, Tinnitus mapping in hearing aids + Loudness Discomfort Level and Measurement + SUT (Health Application Circular) Practice Lesson: REM Applications in Hearing Aids

MYO015 Social Responsibility Project (MYOSEÇ)

(2+0) ECTS: 2

Seminar / conference / panel / workshop / interview

ODT223 Clinical Practice I

(1+2) ECTS: 4

To review the audiometer types and audiometer device features in the vocational technology course content. Practice lesson: Reviewing audiometer device features in the laboratory, To summarize about pure tone audiometry and the points to be considered. Practical lesson: Performing airway assessment in pure tone audiometry, Continue the summary about pure tone audiometry and points to consider. Practical lesson: Airway evaluation in pure tone audiometry (Group Work), Continue the summary about pure tone audiometry and points to consider. Practical lesson: Airway evaluation in pure tone audiometry (Group Work), Reviews and points to consider about speech audiometry Practical lesson: Airway evaluation in pure tone audiometry (Group Work), Reviews and points to consider about

speech audiometry continue. Practical lesson: Airway evaluation in pure tone audiometry (Group Work), General review of the first six weeks of theoretical and practical courses, Knowledge of basic concepts of clinical masking Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), Performing airway masking in clinical masking Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), the topic of airway masking in clinical masking Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), Studying airway masking in clinical masking with audiogram examples Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), Review of masking in speech audiometry Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), Review of masking in speech audiometry - continued Practice lesson: Performing pure tone audiometry and speech audiometry (Group Work), Pure tone audiometry, speech audiometry and clinical masking general review Practice lesson: General review in the laboratory (Group Work).

MET101 Professional Ethics

(2+0) ECTS: 2

What is Ethics? / A Look at Ethical Theories / Basic Concepts: Responsibility, Accountability and Liability / Ethical Analysis, Society and Information Ethics: Two-Way Relationship Between Society and Technology Effects of Information Technologies; Optimistic, Pessimistic, Contextualist Views Why Information Ethics? The Role of Information Ethics, Addiction, Health Problems, Unemployment, Social Relations, Security, Abuse and Cyber Crimes, Human Rights and Patient Rights, Hospital Ethics Committees, Principles of Medical Professional Ethics and Deontology, Ethical case analysis- student presentation, who is an audiometrist?, professional ethics of an audiometrist, Problems encountered in the operation of ethical principles and their solutions, The Concept of Social Responsibility.

SAH101 Health Law (Program Elective)

(2+0) ECTS: 3

Introduction to Health Law, Basic Concepts and Institutions of Health Law, Patient Rights and Concepts, Physician Rights and Concepts, Privacy in Medical Interventions, Information and Consent, Unlawfulness of Medical Intervention, Interventions Performed Without Medical Indication, Relationships Between Hospitals and Patients and Their Legal Nature, Legal Nature of Relationships Between Private Hospitals and Patients, Legal Nature of Relationships Between Public Hospitals and Patients, Malpractice in Medicine and Compensation Problems, Malpractice in Medicine and Compensation Liability.

ODT213 Vestibular System and Evaluation Methods

(2+0) ECTS: 4

What is Balance? How to Maintain Balance?, Vestibular System Anatomy and Physiology, Vestibular Diseases, Vestibular Reflexes, Vestibulo Ocular Reflex (VOR), Vestibulo Spinal Reflex (VSR)-Vestibulo Collic Reflex (VCR), Nystagmus and Vestibular Anamnesis, Videonystagmography (VNG), VEMP and VHIT, Posturography.

ILK101 First Aid (Program Elective)**(2+0), ECTS: 3**

General First Aid Information, Human Body, Patient/Injured and Crime Scene Assessment, Basic Life Support (Basic Life Support for Adults), Basic Life Support (Basic Life Support for Children and Infants), First Aid for Respiratory Tract Obstruction, First Aid for Bleeding and Shock, First Aid for Injuries, First Aid for Burns, Frostbite and Heat Stroke, First Aid for Loss of Consciousness, First Aid for Poisoning, First Aid for Animal Bites, First Aid for Foreign Objects in the Eyes, Ears and Nose, First Aid for Drowning, First Aid for Fractures, Dislocations and Sprains, Patient/Injured Carrying Techniques.

ADS212 Sign Language II (Program Elective)**(0+2), ECTS: 3**

Introduction to Turkish Sign Language, Hand and Finger Shapes, Position of Hands Relative to the Body, Function of Mimics, Use of One and Two Hands, Relation of Signs to Turkish, Understanding Signs and Original Expression Form, Hand-Body Harmony and Facial Expression-Message Harmony, Using Sign Language and Verbal Communication Together, Control of Lip Movements, Greetings, Asking How They Are, Communicating with a Hearing Impaired Individual Using Turkish Sign Language, Conveying Feelings and Thoughts, Understanding the Other Party, Exercise: Studying Music with Sign Language.

ODT218 Hearing Screenings**(2+0), ECTS: 4**

Introduction to Hearing Screenings, History of Hearing Screenings, Newborn Hearing Screening Tests, Risk Factors, YDIT Protocol, Communication with the Family, YDIT-Results System, School Age Hearing Screenings, Industrial Hearing Screenings.

ODT200 Clinical Practice II**(1+2), ECTS: 4**

Pure Tone and Speech Audiometry Applications and Encountered Difficulties (Application: Pure Tone and Speech Audiometry), Reading an Audiogram and Writing an Audiogram Correctly (Application: Audiogram Filling), Clinical Masking Applications, Difficulties Encountered in Masking, Solution and Application in Rarely Encountered Pathologies, Correct Approach to Difficult Cases, Writing an Audiogram Correctly, Communication with the Patient, Applications Regarding Correct Solution Methods, Coordinated Use of Audiological Test Batteries, Understanding the Relationship of Results Obtained from Diagnostic Tests.

ODT220 Research Methods and Techniques in Audiometry**(2+0), ECTS: 3**

Introduction to literature review, Academic Search Engines, Google Scholar, Pubmed and Elsevier Introduction, Article Sections (Abstract, introduction, material-method, findings, discussion and conclusion), Tips for reading articles, Article Discussion, Student Presentations.

ODT216 Audiological Evaluation with Cases**(2+0), ECTS: 4**

Audiogram marking and correct writing of audiological symbols, Clinical Protocol (adult + pediatric), Common Cases in the Clinic, Audiological Evaluation and Reporting, Discussion of the System with Cases with Audiological Symptoms, Discussion of Audiogram Errors/Deficiencies

ODT999 Summer Internship**(20 Work Days), ECTS: 9**