ELECTRONEUROPHYSIOLOGY PR.

1st Semester

Physiology 3ECTS

Introduction to human physiology, tissue and systems, homeostasis, Muscular System, Nervous System, Cardiovascular System, Blood and Immune system, Respiratory System, Sensory System, Digestive System, Urinary System, Endocrine System and Reproduction

Introduction to Anatomy 3 ECTS

To give information about the anatomical structure and properties of human body.

Electroneurophysiology I 8 ECTS

To teach students the foundation and the working principles of the devices used in Electroneurophysiology, such as EEG and EMG.

Information and Communication Technology 4 ECTS

Aim is to give usage abilities of operating system, internet and office programmes (MS Word) by being introduced basic concepts of computer system.

Medical Terminology 3 ECTS

The purpose of this course is help students to write the correct medical term, by gaining the ability to articulate and analyze the infrastructure to create other medical issues.

Occupational Ethics 3 ECTS

This course will help students learn about the ethical concept and health professional ethics and find solutions to the problems they face in their professional life.

English I 2 ECTS

Students will understand English effectively and use basic grammar of English Rules. Through this course, students will be able to interpret simple dialogues in English and use the new structures and words they have learned in their daily lives.

Ataturk's Principles and History of Turkish Revolution I I 2 ECTS

Teaching the military, political, economic and social events of the Ottoman Empire in the internal and external politics, the struggle for national liberation and the formation of the new Turkish Republic.

TURK 111 Turkish Language I 2 ECTS

To give information about language definition, role and importance in communication, verbal and written expression techniques in literary and scientific fields, writing rules and expression disorders.

2nd Semester

Neurology I 5 ECTS

Teaching the basic features of neurological diseases with neurological anatomy. Disorders of consciousness and coma, Primary Headaches, Secondary Headaches, Parkinson's Disease and

Movement Disorders, Epilepsy, Cerebrovascular Diseases, Spinal Cord Diseases, Neuromuscular junction, and Muscle disorders, Amnesia and Dementia diseases, Neglect syndromes. Importance of EEG and using of EEG in the treatment of neurological diseases,

Electroneurophysiology II 8 ECTS

Clinical features of seizures, localized and generalized epileptiform patterns, slow waves and asymmetries, EEG report writing, focal brain lesions, diffuse, toxic and metabolic encephalopathies, organic brain syndromes and dementia, coma and other alternations of mental status, drug effects, psychiatric disorders and EEG, Electrocorticography, chronic ntracerebral recordings, Sleep disorders, intraoperative monitoring.

Cognitive Neurophysiology I 4 ECTS

Physiological Basis of Behaviour and Introduction to Cognitive Neurophysiology, Introduction to Physiological Mechanisms of Intellectual Functions of Brain.

Pharmacology 4 ECTS

Introduction to Pharmacology. Pharmaceutical dosage forms. Drugs absorption, distribution. Metabolism and excretion of drugs. Interactions between drugs.

Biophysics 3 ECTS

Basic Electrical Concepts and Applications in Medicine, Membrane Biophysics, Electrical Properties of Cell Membranes, Local Potentials, Action Potentials, Transducers, Filters, Amplifiers, Measuring Instruments and Oscilloscope, Biophysical Foundations of EEG, Evoked Potentials

English II 2 ECTS

Students will be able to understand English, use it effectively and compare basic grammar rules of English. Through this course, students can comment on simple dialogues in English and use the new structures and words they have learned in their daily lives.

Ataturk's Principles and History of Turkish Revolution II 2 ECTS

This course examines Atatürk's principles and reforms and the political developments after the Ataturk with the establishment process of the Republic of Turkey.

TURK 121 Turkish Language II 2 ECTS

Proper use of punctuation marks in writing, development of plain text writing skills, listening and reading skills are taught.

3rd Semester

Electroneurophysiology Practices I 8 ECTS

Electroneurophysiological methods and analysis as applied in clinic. Introduction to artificial intelligence and basic concepts. Applications of artificial intelligence. Brain-computer interface (BCI), EEG-based brain-computer interface systems, P300 speller system, classification of P300 signals. Recent developments in brain-computer interface studies.

First Aid 3 ECTS

First aid entry and general characteristics, evaluation of basic life function, respiratory and circulatory system, first aid injury, bleeding in first aid, shock and first aid, burns and first aid, poisoning and first aid, fracture-dislocations and sprains first aid, basic life support.

Neurology II 5 ECTS

Episodic epilepsy and other neurological diseases. Radiculopathies, Plexopathies, Polyneuropaties, Entrapment neuropathies, peripheral nerve injury, language disorders, Behavioral Neurology, Muscle Disorders, Sleep Disorders, Demyelinating Diseases, Central Nervous System Infections, walking and posture disorders, visual disorders.

Cognitive Neurophysiology II 5 ECTS

Learning; Nonassociative Learning, Associative Learning, Neuroplasticity, Long Term Potensiyasyon (LTP), long-term depression (LTD). Memory, Short-Term Memory, Working Memory, Long Term Memory, explicit memory, episodic memory, semantic memory, implicit memory types, amnesia and dementia. Lateralization of brain, neuronal mechanisms of speech, categorization in the brain, the frontal processes, neural systems of emotion neurophysiology of language.

Communication in Health 3 ECTS

Description, types and techniques of communication in healthcare services are discussed; acquisition and development of inter-personnel communication skill.

Stress Management 3 ECTS

Explaining the importance of the human dimension of organizations, the research techniques and tools which are used for the management of human, concepts and measurement methods for the management of human.

Compulsory Internship I 5 ECTS

The professional knowledge gained at the school, students will receive internships during the third semester to ensure that they acquire new practical and technical skills, to acquire business skills, and to communicate effectively with other disciplines and administrators.

4th Semester

Electroneurophysiology Practices I 12 ECTS

Electroneurophysiological methods and analysis as applied in clinic. Introduction to artificial intelligence and basic concepts. Applications of artificial intelligence. Brain-computer interface (BCI), EEG-based brain-computer interface systems, P300 speller system, classification of P300 signals. Recent developments in brain-computer interface studies.

Polysomnography 6 ECTS

Purpose of PSG and principles and diagnostic tests to the students

Basic Professional Skills 5 ECTS

Provide students with a relevant work environment which would enable them to apply the knowledge, skills and competences they acquire during their education and training period into

practical life in their field as well as to enhance those skills, competences and knowledge and to gain practical experience in their field of study.

Functional Neuroimaging Technology 4 ECTS

Aims to provide a basic overview of the most commonly utilised techniques in the neurosciences for functional imaging the brain and discuss their applicability.

Sign Language 3 ECTS

Teach to speak in sign language, sign language practices.