

**Vocational School / Electroneurophysiology**  
**2023 - 2024 Academic Year**  
**INTRODUCTION to CLINICAL NEUROPHYSIOLOGY**  
**Syllabus**

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
INTRODUCTION to CLINICAL NEUROPHYSIOLOGY	EFZ1242930	Spring Semester	2+6	5	9
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assist.Prof. Nagihan MANTAR				
<b>Name of Lecturer(s)</b>	Assist.Prof. Fadime ÇADIRCI TUNGAÇ				
<b>Assistant(s)</b>					
<b>Aim</b>	Acquiring the ability to differentiate between normal and abnormal variations by detecting electrical activity in the brain and muscle and applying basic knowledge of the central and peripheral nervous systems.				
<b>Course Content</b>	This course contains; Introduction to clinical neurophysiology, Introduction of the Electroencephalography (EEG) device and its semiology,Nervous system physiology, Introduction of the Electromyography (EMG) device and its semiology,Nerve fiber, peripheral nerves, receptors and effector nerve endings, Measurement of the head using the international 10-20 system I.,Introduction to Electromyography, Study of median nerve motor conduction ,Introduction to Electroencephalography, Measurement of the head using the international 10-20 system II.,Semiology of electromyogram, Study of median sensory nerve conduction,Semiology of electroencephalography, Head measurement and electrode placement according to the international 10-20 system I,Normal and abnormal EEG patterns - I, Study of ulnar nerve motor conduction,Normal and abnormal EEG patterns - II, Head measurement and electrode placement according to the international 10-20 system II,Neuromuscular disease and electromyography, Study of ulnar sensory nerve conduction,Evoked Potentials, Introduction to routine EEG recording I,Sleep and biological rhythms, Study of radial nerve motor conduction,Sleep electroencephalography (EEG), Introduction to routine EEG recording II,Polysomnography, Study of radial sensory nerve conduction.				
<b>Course Learning Outcomes</b>				<b>Teaching Methods</b>	<b>Assessment Methods</b>
Successful completion of this course, the student defines central and peripheral nervous system physiology				16, 9	A
Define the clinical significance of EEG recording and its indications.				6, 9	A
Define the clinical significance of EMG recording and its indications.				16	A
Identify both normal and aberrant EEG rhythms.				13, 16, 9	A
Listing device-related equipment in EEG and EMG laboratories				16, 9	A
Identifies sleep EEG rhythms and polysomnography				16, 9	A
<b>Teaching Methods</b>	13: Case Study Method, 16: Question - Answer Technique, 6: Experiential Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Introduction to clinical neurophysiology, Introduction of the Electroencephalography (EEG) device and its semiology				
2	Nervous system physiology, Introduction of the Electromyography (EMG) device and its semiology				
3	Nerve fiber, peripheral nerves, receptors and effector nerve endings, Measurement of the head using the international 10-20 system I.				
4	Introduction to Electromyography, Study of median nerve motor conduction				
5	Introduction to Electroencephalography, Measurement of the head using the international 10-20 system II.				
6	Semiology of electromyogram, Study of median sensory nerve conduction				
7	Semiology of electroencephalography, Head measurement and electrode placement according to the international 10-20 system I				
8	Normal and abnormal EEG patterns - I, Study of ulnar nerve motor conduction				
9	Normal and abnormal EEG patterns - II, Head measurement and electrode placement according to the international 10-20 system II				
10	Neuromuscular disease and electromyography, Study of ulnar sensory nerve conduction				
11	Evoked Potentials, Introduction to routine EEG recording I				
12	Sleep and biological rhythms, Study of radial nerve motor conduction				
13	Sleep electroencephalography (EEG), Introduction to routine EEG recording II				
14	Polysomnography, Study of radial sensory nerve conduction				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			

Resources	
Instructor's lecture notesTürkiye Nörofizyoloji EEG-EMG derneği İstanbul Şubesi Klinik Nörofizyoloji Laboratuvarı Uygulama El Kitabı 2006, Current Practice of Electroencephalography Ebersole & Pedley	