

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
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Nagihan MANTAR				
Name of Lecturer(s)	Assist.Prof. Nagihan MANTAR				
Assistant(s)					
Aim	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.				
Course Content	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.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
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	
Teaching Methods	13: Case Study Method, 16: Question - Answer Technique, 6: Experiential Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
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				
Evaluation Methods			Weight(%)		
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