ELECTIVE(NEUROSCIENCE AND PSYCHIATRY)

1	Course Title:	ELECTIVE(NEUROSCIENCE AND PSYCHIATRY)
2	Course Code:	TIP6066
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	6
6	Semester:	11
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	0.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	Being a 6th grade medical school student
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi ŞAFAK ERAY
15	Course Lecturers:	Dr. Selçuk Kırlı(Psikiyatri AD. Öğreti Üyesi) Dr. Aslı Sarandöl (Psikiyatri AD. Öğreti Üyesi) Dr. Cengiz Akkaya (Psikiyatri AD. Öğreti Üyesi) Dr.Saygın Eker (Psikiyatri AD. Öğreti Üyesi) Dr. Yusuf Sivrioğlu (Psikiyatri AD. Öğreti Üyesi) Dr. Şafak ERAY(Ç. Psikiyatri AD.Öğreti Üyesi) Dr.Mehmet ZARİFOĞLU (Nöroloji AD. Öğreti Üyesi) Dr. İbrahim BORA (Nöroloji AD. Öğreti Üyesi) Dr. Mustafa BAKAR (Nöroloji AD. Öğreti Üyesi) Dr. Ömer Faruk TURAN (Nöroloji AD. Öğreti Üyesi) Dr. Necdet KARLI (Nöroloji AD. Öğreti Üyesi) Dr.Sevda ERER ÖZBEK (Nöroloji AD. Öğreti Üyesi) Dr.Aylin BİCAN DEMİR (Nöroloji AD. Öğreti Üyesi) Dr.Emine Rabia KOÇ (Nöroloji AD. Öğreti Üyesi) Dr. Selçuk YILMAZLAR (Beyin ve Sinir Cerrahisi AD. Öğreti Üyesi) Dr. Ahmet BEKAR (Beyin ve Sinir Cerrahisi AD. Öğreti Üyesi) Dr. Şeref DOĞAN (Beyin ve Sinir Cerrahisi AD. Öğreti Üyesi) Dr. Hasan KOCAELİ (Beyin ve Sinir Cerrahisi AD. Öğreti Üyesi) Dr. M.Özgür TAŞKAPILIOĞLU (Beyin ve Sinir Cerrahisi AD. Öğreti Üyesi)
16	Contact information of the Course Coordinator:	BUÜ.Tıp Fakültesi Dahili Bilimler Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları AD. drsafakeray@gmail.com safakeray@uludag.edu.tr 0 (0224) 295 18 80
17	Website:	http://bilgipaketi.uludag.edu.tr/Ders/IndexENG/1142903

18	Objective of the Course:	Understanding the differences between mental health status and pathological mental state in children and adolescents, neurodevelopmental diseases, mental illnesses in children and adolescents, sexual abuse and neglect in children, the necessary knowledge, skills and attitudes to increase awareness. To diagnose and treat common neurological diseases at the primary care level, to recognize diseases / conditions that require surgical or interventional treatment and to explain the treatment methods, to recognize emergency neurological conditions, to perform the first intervention and referral under appropriate conditions, to undertake the follow-up of some chronic neurological diseases in primary care conditions and to provide the necessary knowledge, skills and attitudes to apply prevention measures, to recognize neurological signs and symptoms, and to refer the disease with a pre-diagnosis of the relevant disease under appropriate conditions. It aims to enable students to have general neurosurgical knowledge, to evaluate neurosurgery patient profile, to be able to follow up neurosurgical patients, to recognize neurosurgical emergencies and to master general treatment principles and interventions that can be done in primary care.	
19	Contribution of the Course to Professional Development:	To gain the knowledge, skills and attitudes necessary to understand the differences between mental health status and pathological mental state, diagnosis and treatment of emergency psychiatric conditions and depression, and to raise awareness about alcohol and substance use which are important for public health.	
20	Learning Outcomes:		
		1	1. Explain the concept of mental health and treat the patient in a biopsychosocial perspective. 2. Using effective communication skills, takes the psychiatric history of the patient including the main complaint, family history, background and medical illnesses. 3. Makes the psychiatric examination of the patient, recognizes the psychiatric signs and symptoms, establishes the relationship with mental disorders, creates pre-diagnoses with anamnesis and mental state examination findings. 4. Diagnoses depression, plans its treatment, applies the principles of follow-up and prevention, and explains the process of referral. 5. Recognize common psychiatric diseases (schizophrenia, bipolar disorder, anxiety disorders, somatoform disorders, eating disorders, substance use disorders, dementia, sexual dysfunctions, personality disorders etc.). 6. Recognize and evaluate emergency psychiatric cases, make emergency psychiatric intervention when necessary and refer appropriately. 7. Describes the features of the old age and the common pathologies in old age. 8. Explain the concepts of forensic psychiatry. 9. Explains and applies suicide and intervention concepts and defines referral conditions.

	2	1. Explains the concept of mental health in children and adolescents and handles the patient in a biopsychosocial perspective. 2. Using effective communication skills, takes the psychiatric history of the patient including the main complaint, family history, background and medical illnesses. 3. Makes the psychiatric examination of the patient, recognizes the psychiatric signs and symptoms, establishes the relationship with mental disorders, creates pre-diagnoses with anamnesis and mental state examination findings. 4. Recognizes neurodevelopmental diseases and makes appropriate directions. 5. Recognizes common psychiatric diseases (ADHD, Autism, eating disorders, sexual abuse and neglect etc.). 6. Explains the characteristics of childhood and adolescence and common pathologies in this period. 7. Explain the concepts of sexual abuse and neglect. 8. Communicates effectively with patients and their relatives.
	3	1-Explains the main signs and symptoms of nervous system diseases. (Provided with Symptom to Diagnosis courses.) 2-Takes a detailed and reliable anamnesis for the nervous system by using effective communication skills. (Provided with Basic Medical Practices.) 3-Performs the neurological examination in a complete and reliable manner. 4-Recognize life-threatening nervous system diseases and emergencies, make the first treatments and refer appropriately. 5-It monitors some chronic nervous system diseases (epilepsy, stroke, migraine, dementia, etc.) at the primary care level. 6- Applies the principles of rational drug use in the treatment of nervous system diseases. 7- Makes a pre-diagnosis by evaluating the anamnesis and examination findings of the patient with complaints specific to the nervous system, explains the basic diagnostic tests used to make differential diagnosis and confirm the diagnosis, and interprets the results. 8-Explains the epidemiology of neurological diseases that are common in the society and approaches to decrease their frequency? 9-When necessary, examines the minimental condition and interprets the result roughly. (Provided in Basic Medical Practices.) 10-Determines the factors that may confront people with nervous system diseases and individuals who may be at risk in advance or at the early stage of the disease and takes the necessary precautions.
	4	1. General Skill Topics A. Neurological Examination 1. Evaluates the mental state and speech of the patient. 2. Examines the cranial nerves. 3. Examines the central and peripheral sensory function. 4. Examines the motor function. 5. Investigates cranial and peripheral reflexes. 6. Examines the cerebellar function and walking function. B. Neuro-Imaging Basics 1. Recognizes spine fractures and dislocations. 2. Distinguish between blood, air, fat, CSF and bone in computerized images. 3. Recognize the specific disease entities listed, such as epidural, subdural, intracranial hematoma, subarachnoid

hemorrhage, brain tumors, and hydrocephalus.
C. Intracranial hypertension
1. Understand the pathophysiology of high intracranial pressure, brain perfusion and the effect of blood pressure, blood gases, and fluid and electrolyte balance.
2. Recognize the clinical signs of acute brain herniation including the Cushing reflex, midbrain effects and vital signs.
3. Understands the effect of focal mass lesions, structural shifts and their consequences.

2.Intracranial Disease Issues
Diagnosis and Management of Head Trauma
1. Understands and applies Glasgow Coma Score.
2. Recognize the emergence of brain herniation syndromes in trauma environment.
3. Starts the management of high intracranial pressure in head trauma.
4. Recognize and initiate the management of concussion, brain contusion and diffuse axonal injury.
5. Recognize and start the indications and treatment of acute subdural and epidural hematoma, including surgery.
6. Recognize and initiate penetrating trauma management including gunshot wounds.
7. Recognize and understand management principles of open, closed and skull base fractures including cerebrospinal fluid leak and chronic subdural hematoma (in children and adults).
B. Brain Tumor and Abscess Diagnosis and Management
1. Know the relative incidence and location of major primary and secondary brain tumors.
2. Understand the general clinical signs of brain tumors (focal deficit and irritation, mass effect; supratentorial and infratentorial).
3. Recognize extra-axial (cerebellopontine, pituitary, skull base pathologies) and intraaxial specific syndromes in a patient presenting with a brain tumor.
4. Reviews the diagnostic tools currently used for evaluation (laboratory tests, radiology, biopsy).
5. Understands broad treatment strategies (surgery, radiosurgery, radiation and chemotherapy) in the treatment of tumors.
6. Recognize the clinical signs of abscess and focal infections due to local invasion, how they differ from hematogenous diseases associated with immunodeficiency and tumors similar to them.
7. Understand the general principles in the treatment of abscess and focal intracranial infections.
C. Headache Diagnosis and Management
1. Know the main causes of intracranial hemorrhage: Distinguish hemorrhages due to hypertension and amyloidosis, aneurysm, vascular malformation, tumor and coagolopathy in the elderly.
2. Recognize the symptoms and signs of subarachnoid, cerebral and cerebellar hemorrhage.
3. Uses diagnostic tools in the evaluation of acute headache (CT and MRI, role of lumbar puncture).
4. Understands the natural course of the disease and the broad treatment strategies (surgery, radiosurgery, interventional).
Know radiology and vasospasm treatment in diseases such as intracranial aneurysms and vascular malformations.
5. Distinguish migraine, cluster and tension headache and sinusitis headache symptomatology from headaches due to increased intracranial pressure.
D. Diagnosis and Management of Ischemic Cerebrovascular Diseases
1. Recognize the symptoms and signs of ischemia in the

anterior and posterior cerebral circulation originating from the carotid and vertebral artery.
2. Distinguish between types of ischemic stroke: embolic, hemodynamic, lacunar.
3. Classify the etiological factors of atherosclerosis, heart disease, arterial brain ischemia.
Differentiates between arterial dissection, fibromuscular dysplasia, vasculitis, venous thrombosis and hematological disease.
4. Knows the risk factors, indications including medical and surgical treatment, treatment options and management in ischemic diseases.
5. Diagnose and follow carotid occlusive disease using non-invasive methods. Understand the indications for angiography and carotid endarterectomy.
3.Spinal Diseases
Diagnosis and Management of Spinal Cord Injury
1. Recognize a patient with spinal trauma in the emergency service and interpret radiological studies.
2. Initiates immobilization, steroids and systemic therapy (against spinal shock) in the treatment of acute spinal cord injury.
3. Knows the definition of the unstable spine and its subsequent management principles.
4. Understands the treatment principles of spinal cord injury including the indications for decompressive (laminectomy and dural release) surgery. Initiates the treatment of medical complications associated with spinal cord injury (such as skin, bladder, bowel movement, breathing)

Diagnosis and Management of Non-Traumatic Neck and Back Problems 1. Recognize and understand the natural history and management principles of spinal cord, bone and soft tissue injuries in whip style. 2. Recognizes the common categories of spinal pain and radiculopathy: 3. Recognize the signs and symptoms of special conditions such as cauda equina, conus medullaris, central cord, Brown Sequard syndrome. 4. Understands the diagnosis and treatment of common causes such as cervical and lumbar disc herniation, osteoarthritic disease, and spondylolisthesis. 5. Understands the differential diagnosis and treatment of diseases such as metastatic disease and primary spinal tumors. 6. Recognizes the categories of myelopathy: 7. Recognize the signs and symptoms of acute and chronic spinal cord injury. 8. Understands the diagnosis and treatment of common causes of diseases such as cervical and lumbar disc herniation and osteoarthritic disease. 9. Recognize the differential diagnosis and treatment of diseases such as transverse myelopathy, metastatic disease and primary spinal tumors.
4. Peripheral nerve disease Diagnosis and Management of Peripheral Nerve Injury and Entrapment 1. Understands the diagnosis and indications of traumatic nerve injury (laceration, strain and compression), and Knows general treatment strategies. 2. Recognize the signs and symptoms of common nerve compression (carpal tunnel syndrome, ulnar nerve), (entrapment neuropathies such as thoracic outlet syndrome and meralgia paresthetica), know the etiology, conservative treatment and strategies and indications for surgical intervention.
5.Other common neurosurgical problems
A. Diagnosis and Management of Hydrocephalus and Spinal Dysraphism
1. Recognize the symptoms and signs of hydrocephalus in children.
2. Recognize the symptoms and signs of hydrocephalus in adults.
3. Understands the common etiology of hydrocephalus in

		children and adults. Distinguish between contact and occlusive hydrocephalus. 4. Understands treatment strategies for hydrocephalus. 5. Recognizes the common syndromes and neurological findings of spinal dysraphism and knows the management principles. 6.Surgically Treatable Pain Problems, Movement Disorders and Epilepsy Diagnosis and Management 1. Knows the etiology in trigeminal and glossopharyngeal neuralgia. Recognizes the characteristics of cancer pain, in which case it will be referred to surgery and what the interventional and surgical treatment options will be. 2. Recognize surgical intervention-appropriate movement disorders in Parkinson's disease, dystonia, spasticity and hemifacial spasm including indications for surgical referral and spectrum of surgical treatment options. 3. Understands the general classification of seizure disorders, the definition of persistent epilepsy, and the broad categories of surgical intervention for epilepsy, including invasive electrode placement, resective and differential surgery.
	5	Explain the main signs and symptoms of nervous system diseases. (Provided with Symptom to Diagnosis courses.) Takes detailed and reliable anamnesis for the nervous system by using effective communication skills. (Provided with Basic Medical Practices.) Performs neurological examination in a complete and reliable manner. Recognizes life-threatening nervous system diseases and emergencies, performs the first treatments and appropriately referrals, monitors some treated chronic nervous system diseases (epilepsy, stroke, migraine, dementia, etc.) at the primary level.
	6	Applies the principles of rational drug use in the treatment of nervous system diseases. Evaluates the anamnesis and examination findings of the patient with symptoms specific to the nervous system, makes a pre-diagnosis, explains the basic diagnostic tests used to make differential diagnosis and finalize the diagnosis, and interprets the results. explain the approaches to decrease the frequency.
	7	Performs minimental condition inspection when necessary and interprets the result roughly. (It is provided in Basic Medical Practices.) It determines the factors that may confront people with nervous system diseases and individuals who may be at risk in advance or at the early stage of the disease and takes the necessary precautions.
	8	Evaluates the mental state and speech of the patient. It examines the cranial nerves. Examines the central and peripheral sensory function. Examines the motor function. Examines cranial and peripheral reflexes. Examines the cerebellar function and walking function. Recognizes spine fractures and dislocations. Distinguish between blood, air, fat, CSF and bone in computerized images. Recognize the specific disease entities listed, such as epidural, subdural, intracranial hematoma, subarachnoid hemorrhage, brain tumors, and hydrocephalus. Understands the pathophysiology of high intracranial pressure, brain perfusion and the influence of blood pressure, blood gases, and fluid and electrolyte balance. Recognize the clinical signs of acute brain herniation, including the Cushing reflex, midbrain effects, and vital signs. Understands the effect of focal mass lesions, structural shifts and their consequences.

	9	Understands and applies the Glasgow Coma Score. Recognize the emergence of brain herniation syndromes in trauma environment. It initiates the management of high intracranial pressure in head trauma. Recognize and initiate the management of concussion, brain contusion, and diffuse axonal injury. Recognize and initiate the indications and treatment of acute subdural and epidural hematoma, including surgery. Recognize and initiate penetrating trauma management including gunshot wounds. Recognize and understand management principles of open, closed and skull base fractures including cerebrospinal fluid leak and chronic subdural hematoma (in children and adults). Know the relative incidence and location of major primary and secondary brain tumors. Understand the general clinical signs of brain tumors (focal deficit and irritation, mass effect; supratentorial and infratentorial). Recognize extra-axial (such as cerebellopontine, pituitary, skull base pathologies) and intraaxial specific syndromes in a patient presenting with a brain tumor. Reviews the diagnostic tools currently used for evaluation (laboratory tests, radiology, biopsy). Understands broad treatment strategies (surgery, radiosurgery, radiation and chemotherapy) in the treatment of tumors. Recognize the clinical signs of abscess and focal infections due to local invasion, how they differ from hematogenous disease associated with immunodeficiency and tumors similar to these. Understand the general principles in the treatment of abscess and focal intracranial infections. Know the main causes of intracranial hemorrhage: Distinguish bleeding due to hypertension and amyloidosis, aneurysm, vascular malformation, tumor and coagolopathy in the elderly. Recognize the symptoms and signs of subarachnoid, cerebral and cerebellar hemorrhage. Uses diagnostic tools in the evaluation of acute headache (CT and MRI, role of lumbar puncture). Understands the natural history of the disease and the broad treatment strategies (surgery, radiosurgery, interventional). Know radiology and vasospasm treatment in diseases such as intracranial aneurysms and vascular malformations. It distinguishes the symptomatology of migraine, cluster and tension headache and sinusitis headache from headaches due to increased intracranial pressure.

	10	Recognize a patient with spinal trauma in the emergency service and interpret radiological studies. It initiates immobilization, steroids and systemic therapy (against spinal shock) options in the treatment of acute spinal cord injury. Knows the definition of unstable spine and its subsequent management principles. Understands the treatment principles of spinal cord injury including indications for decompressive (laminectomy and dural release) surgery. Initiates the treatment of medical complications associated with spinal cord injury (such as skin, bladder, bowel movement, breathing) Recognize and understand the natural history and management principles of spinal cord, bone and soft tissue injuries in whip style. Recognize the common categories of spinal pain and radiculopathy: Recognize the signs and symptoms of special conditions such as cauda equina, conus medullaris, central cord, Brown Sequard syndrome.
21	Course Content:	
Course Content		
Theoretical		Practice

Psychiatry; Introduction to Psychiatry, Classification of Psychiatric Disorders, Psychiatric Interview and Evaluation 1-2 Personality Disorders, Mood Disorders - Bipolar Disorder Major Depression, Psychotic Disorders, Alcohol and Substance Abuse Psychiatric Emergencies and Suicide Anxiety Disorders (GAD, PB, PTSD, FB, OCD) Cognitive Disorders Child Psychiatry; Early Childhood Mental Characteristics Expression disorders, Anxiety Disorders, Obsessive Compulsive Disorders and Related Diseases in Children and Adolescents Sexual Abuse and Neglect, Eating Disorders in Children and Adolescents 1-2 Neurology; Neurological Examination and Auxiliary Diagnostic Methods MS-Demyelinating Diseases, Neuromuscular diseases, Occlusive Cerebrovascular Disease, Cerebrovascular Disease, Headaches, Sleep and Sleep Disorders, Epilepsy, Behavioral Neurology and Dementia, Expiramidal System Diseases, Neurosurgery; Basic Treatment Principles in Head Trauma, Infratentorial and Supratentorial Pathologies, Brain Bleeding, Physiopathology and Treatment, Pain Epilepsy and Functional Neurosurgery, Head Trauma Radiological Diagnosis and Treatment Principles, Neurosurgery Examination of Emergency Patients, Spine and Spinal Cord Injuries, Brain and Spinal Cord Anomalies, Hydrocephalus	

22	Textbooks, References and/or Other Materials:	Psychiatry: 1. Mental Health and Diseases, Halise Devrimci Ozguven (Editor); Ankara University Faculty of Medicine Publications. 2. Kaplan & Sadock's Synopsis of Psychiatry, Benjamin J. Sadock, Virginia A. Sadock (Editors); Lippincott Williams & Wilkins. 3. Textbook of Psychosomatic Medicine: Psychiatric Care of the Medically Ill. James L. Levenson (Editor); The American Psychiatric Publishing. 4. UpToDate (http://www.uptodate.com) Child and Adolescent Psychiatry: 1. Child and Adolescent Mental Health and Diseases • Kaplan & Sadock's Comprehensive Textbook of Psychiatry (Turkish translation) Editors: Aydın H, Bozkurt A 2. Child and Adolescent Psychiatry Basic Book (Child and Youth Mental Health Association) 3. Mental Health and Disorders .1,2. Skin (Orhan Öztürk, Aylin Uuşahin) 4. Psychosocial Aspects of Diseases (Dr. Ümran Tuzun & Dr. Sabri Hergüner) 5. Lewis Child and Adolescent Psychiatry Comprehensive Textbook 6. Basic Psychiatry (Cengiz Güleç & Ertuğrul Köroğlu) 7. Child and Adolescent Mental Health and Diseases (Dr. Ayla Aysev & Dr. Yaşemen Işık Taner) 8.I am not sick (Aysel Ekşi) 9. Stahl - Basic Psychopharmacology Neurosurgery: 1. Temel Neurosurgery, Ender Korfalı, Mehmet Zileli (Editors); Habitat Publishing 2. Handbook of Neurosurgery 8th Edition. Editor Mark S. Greenberg March 13, 2019. 3. Neurology and Neurosurgery Illustrated. by Lindsay PhD FRCS et al., 5th Edition, Churchill Livingstone, 2010
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	1	100.00
Final Exam	0	0.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		100.00
Contribution of Final Exam to Success Grade		0.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Students are evaluated as successful or unsuccessful according to their attendance at the internship.

24	**ECTS / WORK LOAD TABLE**

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	0	0.00	0.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	0	0.00	0.00
Homeworks	30	5.00	150.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	0	0.00	0.00
Total Work Load			150.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	5	5	5	5	5	5	5	5	5	4	4	4	4	5	5
ÖK2	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4
ÖK3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
ÖK4	5	5	5	5	5	4	5	5	5	5	5	4	5	4	4	5
ÖK5	5	4	5	4	4	4	4	5	5	5	4	4	4	5	4	4
ÖK6	3	3	3	3	5	4	4	4	4	5	4	4	4	4	4	3
ÖK7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
ÖK8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5
ÖK9	5	5	4	4	4	4	4	4	4	4	4	4	3	5	5	5
ÖK10	4	4	4	4	4	5	5	5	5	4	4	4	4	5	5	4
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**			**3 Medium**			**4 High**			**5 Very High**				