MUĞLA SITKI KOÇMAN UNIVERSITY FACULTY of MEDICINE
PHASE 6
ENGLISH MEDICINE PROGRAM

COURSE of NEUROSURGERY

COURSE GUIDEBOOK

PREFACE

Dear Students,

Welcome to the **Neurosurgery** course which is an important part of your education.

This guide describes what you will learn and perform during your course, the rules you must follow in our clinic, and the working conditions. We wish you all success with the belief that this guide will guide you sufficiently through your course studies.

Department of Neurosurgery

GENERAL INFORMATION on COURSE

Course Title	**:** Neurosurgery
Main Department of Course	**:** Surgical Medical Sciences
Department Responsible for Course	**:** Neurosurgery
Course Code	**:** MED
Course Topic Code	: MED
Course Type	**:** Elective
Duration of the Course	**:** 1 month
Teaching Method of the Course	**:** Formal
ECTS	**:** 5
Language	**:** English

TEACHING METHODS-TECHNIQUES

a. Applied training methods

- ✓ Inpatient bedside (service) trainings / Inpatient bedside (service) practical applications
- ✓ Participation in outpatient services / Practical applications at the outpatient clinic
- ✓ Bedside Training / Practical Practices at the Bedside
- ✓ Instructor visits (Story taking, file preparation and presentation, interactive discussion, monitoring)
- ✓ Operating room applications
- ✓ Medical record keeping and evaluation practices
- ✓ Participation in Branch Informatics Applications

b. Interactive learning activities:

- ✓ Meetings, panels, group discussions,
- ✓ Case-based discussion sessions, problem-based training sessions with small groups, critical situation discussions, councils, gamification, structured case discussions,
- ✓ Readings and interpretations of works/articles

c. Vocational Skills applications

- ✓ The minimum number of practices/studies required for reinforcing the proficiency gained in the previous education periods in the defined vocational skills is determined and it is ensured that each intern does it.

d. Teamwork

e. Independent learning

- ✓ Independent working hours

f. Other Educational Events

- ✓ Clinical Case Reports
- ✓ Article Presentations
- ✓ Seminar/Lesson Presentations
- ✓ Literature Presentations
- ✓ Research and Presentation

PHYSICAL SPACES

Teaching Activity	Physical Space	Explanation
Theoretical lessons	Muğla Training and Research Hospital	2nd floor, Classroom
Inpatient bedside practice	Muğla Training and Research Hospital	4th floor, Neurosurgery Service
Policlinic	Muğla Training and Research Hospital	2nd floor, Neurosurgery Polyclinic
Case analysis	Muğla Training and Research Hospital	4th floor, Neurosurgery Service
Problem-based teaching	-	
Special audit applications	Muğla Training and Research Hospital	4th floor, Neurosurgery Service
Private field applications	Muğla Training and Research Hospital	3th floor, Neurosurgery Operating Room

RELATED LEGISLATION

http://www.tip.mu.edu.tr/tr/ilgili-mevzuat-6641

AIM(S) of the COURSE

1	In this course, it is aimed that students comprehend the practical and applied information about the diagnosis, differential diagnosis and treatment of central nervous system (CNS) congenital, traumatic, vascular, tumoral and movement disorders.
2	In this course, it is aimed that the students comprehend the principles of approaching to neurosurgical emergencies and neurotrauma (spinal and cranial) patients.
3	In this course, it is aimed that the students be able to perform the necessary intervention and basic interventional procedures in emergency situations.

OBJECTIVE(S) of the COURSE

1	To be able to recognize and diagnose diseases that require emergency neurosurgical intervention in the emergency department.
2	To be able to recognize the clinic caused by intracranial hemorrhage, spinal injuries, and intracranial space-occupying lesions, to be able to make a diagnosis and to be able to make a differential diagnosis.
3	To be able to explain the timing of surgical treatment and emergency surgical options.
4	To be able to explain first aid and intervention to spine and head trauma patients.
5	To be able to distinguish the conditions that require referral in neurosurgical diseases.
6	To be able to explain the formation mechanisms of neurosurgery related diseases.
7	To be able to explain the clinical features and clinical approach principles (diagnosis, treatment, and prevention) of the main diseases related to neurosurgery.
8	To be able to get a medical history of the patient's health problems, personal and family history and nervous system by communicating well with the patient and their relatives.
9	To be able to perform physical examination of the nervous system.
10	To be able to select the diagnostic methods/procedures in the appropriate order that will guide the diagnosis and treatment by evaluating the medical history and physical examination findings in the patient presenting with nervous system complaints.
11	To be able to explain the basic diagnostic methods and procedures used in the diagnosis of nervous system diseases and interpret the results.
12	To be able to make a preliminary diagnosis/diagnosis by evaluating the medical history, physical examination findings and diagnostic test results in a patient presenting with nervous system complaints.

13	To be able to plan appropriate treatment for neurosurgical problems/diseases at primary care level and to be able to explain referral criteria.
14	To be able to explain neurosurgical emergencies and the principles of approach to these situations.
15	To be able to make the first response to emergencies related to neurosurgery and to be able to refer them appropriately.
16	To be able to explain the importance of multidisciplinary approach to the problems related to neurosurgery.
17	To be able to recognize neural tube defects in newborns and children.
18	To be able to plan fluid and electrolyte therapy in Increased Intracranial Pressure (ICP) patients.

INTENDED LEARNING OUTCOME(S)

1	Can recognize and diagnose diseases that require emergency neurosurgical intervention in the emergency department.
2	Can recognize the clinic caused by intracranial hemorrhage, spinal injuries, and intracranial space-occupying lesions, can make a diagnosis and can make a differential diagnosis.
3	Can explain the timing of surgical treatment and emergency surgical options.
4	Can explain first aid and intervention to spine and head trauma patients.
5	Can distinguish the conditions that require referral in neurosurgical diseases.
6	Can explain the formation mechanisms of neurosurgery related diseases.
7	Can explain the clinical features and clinical approach principles (diagnosis, treatment and prevention) of the main diseases related to neurosurgery.
8	Can get a medical history of the patient's health problems, personal and family history and nervous system by communicating well with the patient and their relatives.
9	Can perform physical examination of the nervous system.
10	Can select the diagnostic methods/procedures in the appropriate order that will guide the diagnosis and treatment by evaluating the medical history and physical examination findings in the patient presenting with nervous system complaints.
11	Can explain the basic diagnostic methods and procedures used in the diagnosis of nervous system diseases and interpret the results.
12	Can make a preliminary diagnosis/diagnosis by evaluating the medical history, physical examination findings and diagnostic test results in a patient presenting with nervous system complaints.
13	Can plan appropriate treatment for neurosurgical problems/diseases at primary care level and can explain referral criteria.
14	Can explain neurosurgical emergencies and the principles of approach to these situations.
15	Can make the first response to emergencies related to neurosurgery and can refer them appropriately.
16	Can explain the importance of multidisciplinary approach to the problems related to

	neurosurgery.
17	Can recognize neural tube defects in newborns and children.
18	Can plan fluid and electrolyte therapy in Increased Intracranial Pressure (ICP) patients.

DUTIES and RESPONSIBILITIES OF STUDENTS and PATIENTS

Please read: MSKU Medical Faculty Pre-Graduation Education Rules, Students' Responsibilities and Duties (MSKÜ Tıp Fakültesi Mezuniyet Öncesi Eğitiminde Öğrencilerin Uyması Gereken Kurallar, Öğrencilerin Sorumlulukları ve Görevleri)

Web Site: https://tip.mu.edu.tr/tr/ilgili-mevzuat-6641

RECOMMENDED RESOURCE(S)

KEY RESOURCE(S)

KEY RESOURCE(S)	Matched Course Outcome(s)
Handbook of Neurosurgery, Mark S. Greenberg, 9 th Edition, Thieme, New york 2019, ISBN-978-1-68420-137-2	1,2,3,5,6,7,8,9,10
Temel Nöroşirürji , E. Korfalı, M. Zileli, Türk Nöroşirürji Derneği Yayınları, Ankara 2010, ISBN-978-605-4149-04-9.	1,2,3,5,6,7,8,9,10
Youmans Neurological Surgery, H.R.Winn, Saunders, 5. Baskı, ISBN-0-7216-8291-X.	1,2,3,5,6,7,8,9,10

ADDITIONAL RESOURCE(S)

ADDITIONAL RESOURCE(S)	Matched Course Outcome(s)
Türk Nöroşirürji Dergisi, ISSN 1019-5157, Türk Nöroşirürji Derneği	1,2,3,5,6,7,8,9,10
Turkish Neurosurgery, ISSN 1019-5149, Turkish Neurosurgical Society	1,2,3,5,6,7,8,9,10
Lecturer Notes	1,2,3,5,6,7,8,9,10

ASSESMENT and EVALUATION

Phase 6 Student Internship Success Criteria: (All criteria must be met)

1. The student must fulfill the internship continuity criteria.
2. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful.
3. Candidate Physician Logbook scoring of 60 and above is considered successful.

Faculty of Medicine
English Medicine Program
Phase 6
Neurosurgery Course
Competence Matrix

The Name of the Course	Po1	Po2	Po3	Po4	Po5	Po6	Po7	Po8	Po9	Po10	Po11	Po12	Po13
Neurosurgery	5	5	3	4	3	3	5	4	3	4	5	4	5

*** Completed according to the following program outcomes. (Score from 0 to 5.)**
PO: Program Outcomes of Faculty of Medicine

PO Link: https://muweb.mu.edu.tr/tr/program-yeterlilikleri-6598?site=tip.mu.edu.tr

CANDIDATE PHYSICIAN QUALIFICATION CERTIFICATE

MUGLA SITKI KOCMAN UNIVERSITY MEDICAL SCHOOL NEUROSURGERY INTERNSHIP CANDIDATE PHYSICIAN QUALIFICATION CERTIFICATE		
Student's name and surname: **Number:**		**Beginning;/...../.....** **End: …./…../……**
A	**Participation in Internship Training Programs (25 points)** ✓ Seminar, article, case report etc. ✓ Report-Homework Preparation etc. ✓ Research etc.	
B*	**Internship Logbook Score (50 points) *** ✓ Fulfilling the applications specified in the internship logbook in the desired number and level etc.	
C	**Fulfilling Intern Physician Work Responsibilities: (25 points)** ✓ Learning the seizure system, taking over, and transferring patients, obeying the hours ✓ Service Activities ✓ Polyclinic Activities ✓ Fulfillment of assigned tasks ✓ Adaptation and Participation in Teamwork ✓ Communication with patients and their relatives ✓ Compliance with working hours etc.	
CONTINUITY:	**Continuous (….)**	**Discontinuous (…..)**
RESULT:	**Successful (….)**	**Unsuccessful (…..)**
EVALUATION SCORE: **(With numbers and text)** **Score: …… (out of 100)**	**INTERNSHIP COORDINATOR ACADEMIC STAFF:** Date: Signature:	**HEAD OF DEPARTMENT** Date: Signature:
Phase 6 Student Internship Success Criteria: (All criteria must be met) 4. The student must fulfill the internship continuity criteria. 5. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful. **6.** Candidate Physician Logbook scoring of 60 and above is considered successful.		
*** Half of the Candidate Physician Internship Logbook Score must be reflected in the B field.**		

CANDIDATE PHYSICIAN INTERNSHIP LOGBOOK

MUGLA SITKI KOCMAN UNIVERSITY
MEDICAL SCHOOL
NEUROSURGERY
CANDIDATE PHYSICIAN INTERNSHIP LOGBOOK

Student's name and surname:		**Number:**		
Beginning:/...../.....		**End: ...../...../……**	**Level**	**Performed**
1.	Patient file preparation		4	
2.	Taking general and problem-oriented history		4	
3.	Systematic physical examination		4	
4.	Evaluation of general condition and vital signs		4	
5.	Interpreting the results of screening and diagnostic examinations		3	
6.	Differential Diagnosis			
7.	Reading and evaluating direct radiographs		3	
8.	Requesting rational laboratory and imaging examination		4	
9.	Applying the principles of working with biological material		4	
10.	Obtaining a biological sample from the patient		3	
11.	Taking the laboratory sample under appropriate conditions and delivering it to the laboratory		4	
12.	Providing decontamination, disinfection, sterilization, antisepsis		4	
13.	Hand washing		4	
14.	Opening vascular access		4	
15.	IM, IV, SC, ID Injection		4	
16.	Preparing the drugs to be applied correctly		3	
17.	Administering oral, rectal, vaginal, and topical drugs		3	
18.	Applying the principles of rational drug use		4	
19.	Treatment planning and prescription		4	
20.	Preparing patient discharge report		4	
21.	Properly referring the patient		4	
22.	Providing sufficient and understandable information to the patient and his/her relatives about the disease		4	
23.	Providing accurate and adequate information to the patient and/or patient relatives about possible interventions/treatment options, obtaining consent for treatment		4	
24.	Communicating effectively with the work team, colleagues, and trainers		4	
25.	Internship-specific item* …….			
26.	Internship-specific item* …….			
27.	Internship-specific item* …….			

RESULT: **Successful (….)** **Unsuccessful (…..)**	**EVALUATION SCORE: (With numbers and text)** **Score: …… (out of 100)**	**INTERNSHIP COORDINATOR ACADEMIC STAFF:** Date: Signature:	**HEAD OF DEPARTMENT** Date: Signature:

Phase 6 Student Internship Success Criteria: (**All criteria must be met)**
1. The student must fulfill the internship continuity criteria. 2. Candidate Physician Qualification Certificate scoring of 60 and above is considered successful. 3. Candidate Physician Logbook scoring of 60 and above is considered successful.
***The Department can remove the item(s) from the Internship Logbook and/or add the item(s) specific to the internship by specifying the level to the Internship Logbook. It is recommended that the department check that all NCEP-2020 Basic Medicine Practices and levels related to the internship are stated in the Internship Logbook.**

LEARNING LEVEL OF BASIC MEDICAL PRACTICES*	
Level	**Explanation**
1	Knows how the application is done and explains the results to the patient and / or their relatives
2	Makes the application in accordance with the guide / directive in an emergency
3	Makes the application* in uncomplicated, common, cases/cases
4	Makes the application** including complex situations/phenomenons
*Denotes the minimum level of performance, and therefore learning, that a physician who graduated from the faculty of medicine should exhibit during basic medicine practices. It is determined separately for each skill/application in the minimum level list. The faculties ensure that each student is able to perform the medical practice in question at the minimum level determined during the education period they apply.	
** Makes the preliminary evaluation/evaluation, creates, and implements the necessary plans, and informs the patient and their relatives/society about the process and its results.	
***Source: NCEP 2020**	