

MED 666 - COURSE INFORMATION					
Course Title	Code	Semester	L+P Hour	Credits	ECTS
Neurosurgery (Clinical internship)	MED 666	Phase 6/11-12	<u>120</u>	5	5*

\* ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

#### GENERAL INFORMATION

This course is for Phase VI students of Yeditepe University Faculty of Medicine.

Prerequisites	Obligatory (main) courses of Phase V should be completed.
Coordination Office	Yeditepe University Hospital.
Email address for inquiries	uture@yeditepe.edu.tr
Attendance	Students are required to attend at least 80% of the classes.
Language of Instruction	English
Course Level	Second Cycle including First Cycle Degree (One Tier Program)
Course Type	Elective course
Course Coordinator	Uğur Türe, MD Prof
Lecturers/Instructors	Uğur Türe MD Prof. Ahmet Hilmi Kaya MD Prof. Aikaterini Panteli MD Assist. Prof.
Assistants	
Goals	The aim of the elective course is to equip the intern with enriched knowledge and skills in the preferred medical specialty.
Content	The elective internship is a 1-month rotation chosen by the 6th year medical students available from the elective courses in the curriculum . This elective course will guide their future careers and contribute to forming their career preferences. Thus, intern doctors can deeply understand current developments and specific topics related to their professional interests. These courses also provide additional benefits such as necessary collaborations, interprofessional communication, and interaction that will enable career planning processes related to their professional career in different countries and institutions. Therefore, the content of the elective course is shaped based on the personal needs and expectations of the student. Like the other rotations, evaluation of student performance will be based on overall clinical performance both in hospital and outpatient clinics, the attitudes toward patients, participation in seminars, regular attendance at scientific meetings and outpatient clinics, lectures and case discussions, evaluating the level of scientific and practical knowledge and consulting skills. Ratings of students recorded with required projects and will be performed as “passed “or “failed” with an overall evaluation score of 100.

#### COURSE LEARNING OUTCOMES

At the end of this course, the student should be able to	Program Learning Outcomes	Teaching Methods	Assessment Methods
1. Recognize general clinical presentation in neurosurgical patients and direct them to a specialized neurosurgery clinic	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A
2. Describe neurosurgical emergencies (head and spinal trauma, intracerebral hemorrhage and subarachnoid hemorrhage)	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A
3. Recognize intracranial hypertension and brain herniation syndromes	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A
4. Describe clinical findings in common brain tumors to refer patients to appropriate centers	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A
5. Describe spinal trauma and spinal cord injury in early period and transfer of patient to appropriate center based on knowledge of immobilization status.	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A

6. Recognize non-traumatic neck, dorsal and low back pain and differentiate from non- neurosurgical pathologies	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,3.2.3	1	A
7. Describe the management of immobilized patients to prevent bedsores, encourage mobilization and hygiene	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3,	1	A
8. Perform spinal immobilization for the transfer of a neurosurgical patient	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3	1	A
9. Describe intraoperative patient positioning according to lesion location	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3	1	A
10. Interpret intracranial and spinal pathology in imaging modalities	1.1.1,1.1.4,1.1.7, 2.1.1,2.1.2,2.1.3, 2.3.1,2.3.2, 2.4.1, 2.4.2,2.4.3,2.5.1,2.5.2, 2.5.3,3.1.3, 3.2.2	1	A
11. Displays the proper behavior while delivering information on patient's clinical status	2.3.1,2.4.1,2.4.2, 2.5.1,2.5.2,2.5.3	1	A

12. Displays appropriate behavior to peers, patients and their families under stressful conditions	2.3.1,2.4.1,2.4.2, 2.5.1,2.5.2,2.5.3	1	A
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Teaching Methods:	1. Clinical Experience (Learning environments: Inpatient clinic, Outpatient clinic, Imaging rounds, Operating room, Laboratory, Conferences) (Learning activities: Grand round, Patient bedside discussion, Observership, Clinical practice, Case discussion )
Assessment Methods:	A: Internship Evaluation Form (Assessment of Clinical Performance)

COURSE CONTENT		
Week	Topics	Study Materials
	1. Clinical examination of the neurosurgical patient 2. Intracranial tumors 3. Spinal tumors 4. Vascular neurosurgery 5. Degenerative spine disease 6. Spinal stenosis/ spondylolisthesis 7. Head trauma 8. Spinal trauma 9. Hydrocephalus	Textbooks/ Scientific articles

COURSE MATERIALS	
Text Books and Reading Material	1- Yasargil's Microneurosurgery Vol I- IVB Thieme 2- Handbook of Neurosurgery 10th edition M. Greenberg Thieme 3- Neurology and Neurosurgery Illustrated 5th Edition Elsevier 4- Bate's Guide to Physical Examination and History Taking 12th edition Wolters Kluwer
Additional Resources	1. Scientific articles

<b>YEDİTEPE UNIVERSITY FACULTY OF MEDICINE</b> <b>INTERN PHYSICIAN EVALUATION FORM</b> <i>This form includes evaluation components for intern physicians and is the basis of the passing grade for internship.</i>	
Intern's name and surname:	
Intern number:	
Internship program name:	
Dates of start and end for internship program:	
<b>1. Evaluation of Cognitive Competencies</b> <i>* The level of competency should be determined based on <b>participation in educational activities</b> (Title 1 on the <b>Intern Logbook</b>) and the observations of the Faculty Member / Internship Training Supervisor / Head of the Department for the intern.</i>	

		<b>*Competency Level</b>
<b>1.1. Clinical reasoning and decision making</b> The stages of decision making process in an evidence based manner; to determine preliminary / differential diagnosis/diagnoses, to order appropriate diagnostic tests, to achieve an appropriate definitive diagnosis and treatment (interventional or not).		Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>
<b>1.2. Professional knowledge</b> During the educational activities (case discussions, educational visits, faculty member seminars, intern physician seminars, etc.) to answer the questions, to ask the questions, to start a discussion, to contribute to the discussion, to display an understanding of the subject.		Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>
<b>1.3. Literature review and seminar presentation</b> Preparation based on evidence of higher scientific strength, presenting the subject in a solid logical reasoning with in a reference to essential check points, mastering the subject, answering the questions asked.		Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>
Explanations, opinions and recommendations based on the observations of the Faculty Member / Internship Training Supervisor / Head of the Department		
<b>2. Evaluation of Competencies for Basic Medical Practice</b> <i>* The level of competency should be determined based on <b>basic medical practice</b> (Title 2 on the <b>Intern Logbook</b>) and the observations of the Faculty Member / Internship Training Supervisor / Head of Department for the intern.</i>		
	<b>* Competency Level</b>	
Basic medicine practices based on <b>Intern Logbook</b>	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>	
Explanations, opinions and recommendations based on the observations of the Faculty Member / Internship Training Supervisor / Head of the Department		
<b>3. Evaluation of Professional Competencies for Medicine</b>		
	<b>* Competency Level</b>	
<b>3.1. Communicating with patients and relatives</b>	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>	
<b>3.2. Compliance in hospital rules (i.e. standard operating procedures, SOPs)</b>	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>	
<b>3.3. Working in a team and collaborating and communicating with team members</b>	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>	
<b>3.4. Performing given tasks</b>	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/>	

	Well above expectations <input type="checkbox"/>																								
3.5. Diligence on attendance and participation in scientific activities	Does not meet expectations <input type="checkbox"/> Meets expectations <input type="checkbox"/> Above expectations <input type="checkbox"/> Well above expectations <input type="checkbox"/>																								
Explanations, opinions and recommendations based on the observations of the Faculty Member / Internship Training Supervisor / Head of the Department																									
Evaluated Competencies	Total Score (Over 100) (For each section below, the score below 70 obtained by the Intern is a reason for inadequacy.) Impact on Internship End Score																								
Cognitive Competencies	Score:.... 20%																								
Competencies for Basic Medical Practice	Score:.... 60%																								
Professional Competencies for Medicine	Score:.... 20%																								
<p>*If the competency level for the intern is determined as “does not meet the expectations” in any part of the evaluation form, the intern is considered to be <b>unqualified</b>. In this condition, <b>FF</b> is given as a letter grade.</p> <p>**If the intern physician is deemed inadequate due to <b>absenteeism</b>, <b>FA</b> is given as a letter grade.</p> <p>Internship Evaluation End Score: .....</p> <p>Letter Grade:.....</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Score Range</th> <th>Letter Grade</th> <th>Credit Rating</th> </tr> </thead> <tbody> <tr><td>90 – 100</td><td>AA</td><td>4.0</td></tr> <tr><td>80 – 89</td><td>BA</td><td>3.5</td></tr> <tr><td>70 – 79</td><td>BB</td><td>3.0</td></tr> <tr><td>65 – 69</td><td>CB</td><td>2.5</td></tr> <tr><td>60 – 64</td><td>CC</td><td>2.0</td></tr> <tr><td>0 – 59</td><td>FF</td><td></td></tr> <tr><td>Absent</td><td>FA</td><td></td></tr> </tbody> </table>		Score Range	Letter Grade	Credit Rating	90 – 100	AA	4.0	80 – 89	BA	3.5	70 – 79	BB	3.0	65 – 69	CB	2.5	60 – 64	CC	2.0	0 – 59	FF		Absent	FA	
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0 – 59	FF																								
Absent	FA																								
**Attendance	Absence ≤ 20% <input type="checkbox"/> Absence > 20% <input type="checkbox"/>																								
Decision	Qualified <input type="checkbox"/> Unqualified <input type="checkbox"/>																								

Date:

**Internship Commission:** \_\_\_\_\_

Faculty Member

Faculty Member

Internship Training Supervisor

Head of the Department

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COURSES CONTRIBUTION TO PROGRAM					
COMPETENCE AREA-1 / Professional Practices	Contribution				
COMPETENCE 1.1. Health Service Provider	1	2	3	4	5
<b>Competency 1.1.1.</b> Integrates knowledge, skills, and attitudes acquired from basic and clinical medical sciences, behavioral sciences, and social sciences to provide health services.					x
<b>Competency 1.1.2.</b> Demonstrates a biopsychosocial approach that considers the individual's sociodemographic and sociocultural background without discrimination based on language, religion, race, or gender in patient management.					x
<b>Competency 1.1.3.</b> Prioritizes the protection and improvement of individuals' and community's health in the delivery of healthcare services.					x
<b>Competency 1.1.4.</b> Performs the necessary actions in the direction of maintaining and improving the state of health as considering the individual, social, social and environmental factors affecting health.					x
<b>Competency 1.1.5.</b> Provides health education to healthy/ill individuals and their families, as well as to other healthcare professionals, by recognizing the characteristics, needs, and expectations of the target audience.					x
<b>Competency 1.1.6.</b> Demonstrates a safe, rational, and effective approach in the processes of protection, diagnosis, treatment, follow-up, and rehabilitation in health service delivery.					x
<b>Competency 1.1.7.</b> Performs interventional and/or non-interventional procedures safely and effectively for the patient in the processes of diagnosis, treatment, follow-up, and rehabilitation.		x			
<b>Competency 1.1.8.</b> Provides healthcare services considering patient and employee health and safety.					x
<b>Competency 1.1.9.</b> Considers changes related to the physical and socio-economic environment at both regional and global scales that affect health, as well as changes in the individual characteristics and behaviors of those who seek healthcare services.					x
COMPETENCE AREA-2 / Professional Values and Approaches	Contribution				
COMPETENCE 2.1. Adopting Professional Ethics and Principles	1	2	3	4	5
<b>Competency 2.1.1.</b> Considers good medical practices while performing the profession.					x
<b>Competency 2.1.2.</b> Fulfills duties and obligations within the framework of ethical principles, rights, and legal responsibilities required by the profession.					x
<b>Competency 2.1.3.</b> Demonstrates determined behavior in providing high-quality healthcare while considering the patient's integrity.					x
<b>Competency 2.1.4.</b> Evaluates own performance in professional practices by considering own emotions and cognitive characteristics.					x
COMPETENCE 2.2. Health Advocate					
<b>Competency 2.2.1.</b> Advocates for the improvement of healthcare service delivery by considering the concepts of social accountability and social responsibility in the protection and enhancement of community health.			x		
<b>Competency 2.2.2.</b> Plans and implements service delivery, education, and counseling processes related to individual and community health, in collaboration with all stakeholders, for the protection and improvement of health.					x
<b>Competency 2.2.3.</b> Evaluates the impact of health policies and practices on individual and community health indicators and advocates for the improvement of healthcare quality.			x		
<b>Competency 2.2.4.</b> Gives importance to protecting and improving own physical, mental, and social health and takes necessary actions for it.					x
COMPETENCE 2.3. Leader-Manager					
<b>Competency 2.3.1.</b> Demonstrates exemplary behavior and leadership within the healthcare team during service delivery.					x
<b>Competency 2.3.2.</b> Utilizes resources in a cost-effective, socially beneficial, and compliant manner with regulations in the planning, implementation, and evaluation processes of healthcare services as the manager in the healthcare institution.					x
COMPETENCE 2.4. Team Member					
<b>Competency 2.4.1.</b> Communicates effectively within the healthcare team and takes on different team roles as necessary.					x

<b>Competency 2.4.2.</b> Displays appropriate behaviors while being aware of the duties and responsibilities of healthcare workers within the healthcare team.					<b>x</b>
<b>Competency 2.4.3.</b> Works collaboratively and effectively with colleagues and other professional groups in professional practice.					<b>x</b>
<b>COMPETENCE 2.5. Communicator</b>					
<b>Competency 2.5.1.</b> Communicates effectively with patients, their families, healthcare professionals, and other occupational groups, institutions and organizations.					<b>x</b>
<b>Competency 2.5.2.</b> Communicates effectively with individuals and groups who require a special approach and have different sociocultural characteristics.					<b>x</b>
<b>Competency 2.5.3.</b> Demonstrates a patient-centered approach that involves the patient in decision-making mechanisms during the diagnosis, treatment, follow-up, and rehabilitation processes.					<b>x</b>
<b>COMPETENCE AREA-3 / Professional and Personal Development</b>	<b>Contribution</b>				
<b>COMPETENCE 3.1. Scientific and Analytical Approach</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Competency 3.1.1.</b> Plans and implements scientific research, as necessary, for the population it serves, and utilizes the results obtained, as well as those from other research, for the benefit of the community.					<b>x</b>
<b>Competency 3.1.2.</b> Accesses and critically evaluates current literature related to their profession.					<b>x</b>
<b>Competency 3.1.3.</b> Applies evidence-based medicine principles in the clinical decision-making process.					<b>x</b>
<b>Competency 3.1.4.</b> Uses information technologies to enhance the effectiveness of healthcare, research, and education activities.					<b>x</b>
<b>COMPETENCE 3.2. Lifelong Learner</b>					
<b>Competency 3.2.1.</b> Manages effectively individual study processes and career development.					<b>x</b>
<b>Competency 3.2.2.</b> Demonstrates skills in acquiring, evaluating, integrating new information with existing knowledge, applying to professional situations, and adapting to changing conditions throughout professional career.					<b>x</b>
<b>Competency 3.2.3.</b> Selects the right learning resources to improve the quality of health care and organizes the learning process.					<b>x</b>
<b>ECTS ALLOCATION</b>					
Activity	Quantity	Duration (Hours)	Total Workload (Hours)		
Clinical Experience	45	2	90		
Internship Guide Compilation	20	1	20		
Independent Learning Hours	45	1	45		
Assessment	2	2.5	5		
Total Workload			160		
Total Workload / 30 (h)			5.3		
<b>ECTS Credits</b>			<b>5</b>		