

COURSE INFORMATION					
Course Title	Code	Semester	L+P Hour	Credits	ECTS
Thoracic Surgery (Clinical Clerkship)	MED 410	4/7-8	19+21	2	2*

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

<b>Prerequisites</b>	This course is mandatory for grade 4 students of Yeditepe University Faculty of Medicine.
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<b>Language of Instruction</b>	English
<b>Course Level</b>	Second-cycle higher education (i.e. QF-EHEA-2, EQF-LLL-7, TYYÇ-7) with Master's Degree/ "Regulated Professions" legislation by EU 2005/36/EC Directive
<b>Course Type</b>	Compulsory
<b>Course Coordinator</b>	Sina Ercan, MD. Prof.
<b>Instructors</b>	S. Volkan Baysungur, MD. Prof. Levent Alpay, MD. Prof. Serdar Evman, MD. Assoc. Prof. Aysun Kosif, MD. Assoc. Prof.
<b>Assistants</b>	-
<b>Goals</b>	Aim of this clerkship is to; 1. Equip students with necessary knowledge, skills and attitudes required to recognize emergencies of major airways, pulmonary vascular structures, lungs, chest wall, esophagus and other frequent pathologies, 2. Equip students with necessary knowledge, skills and attitudes required to complete initial workup to confirm diagnosis, 3. Equip students with necessary knowledge, skills and attitudes required to organize initial treatment as well as arranging quick transfer to a next level health center when needed, 4. Provide students with necessary theoretical and practical training.
<b>Content</b>	<b>For further details please see Academic Program Book of Phase IV</b> at <a href="https://med.yeditepe.edu.tr/sites/default/files/phase_iv_apk_2021-2022_v5_27.12.2021.pdf">https://med.yeditepe.edu.tr/sites/default/files/phase_iv_apk_2021-2022_v5_27.12.2021.pdf</a>

THORACIC SURGERY Group 1								
	Wednesday 08.Dec.2021 @Kaysisdagi	Thursday 09.Dec.2021 @Sultanbeyli	Friday 10.Dec.2021 @Kaysisdagi	Monday 13.Dec.21 @Kaysisdagi	Tuesday 14.Dec.2021 @Sultanbeyli	Wednesday 15.Dec.2021 @Sultanbeyli	Thursday 16.Dec.2021	Friday 17.Dec.2021 @Kaysisdagi
08.00-08.45	Introductory Session Welcome & Acquaintance "Introduction to Thoracic Surgery" Sina Ercan	Clinical Experience Surgical Intensive care unit S.Senol, E.Cevrek	Lecture Topographical Anatomy of the Thorax and Thoracic Incisions S.Senol, E.Cevrek	Lecture Thoracic Trauma I S.Senol, E.Cevrek	Clinical Experience Surgical Intensive care unit S.Senol, E.Cevrek	Clinical Experience Surgical Intensive care unit S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	
09.00-09.45	Lecture Surgical Pathologies of Trachea and their Treatment Sina Ercan	Clinical Experience Surgical S.Senol, E.Cevrek	Lecture Radiological Evaluation in Thoracic Surgery S.Senol, E.Cevrek	Lecture Thoracic Trauma II S.Senol, E.Cevrek	Clinical Experience Surgical Operating room S.Senol, E.Cevrek	Clinical Experience Surgical Operating room S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam
10.00-10.45	Lecture Esophageal Diseases and Surgical Treatment Sina Ercan	Case Presentation (Faculty) Volkan S.Senol, E.Cevrek	Lecture Chest Wall Diseases and Surgical Treatment S.Senol, E.Cevrek	Lecture Benign Lung Diseases & Hydatic Cyst of the Lung S.Senol, E.Cevrek	Clinical Experience Inpatient S.Senol, E.Cevrek	Clinical Experience Surgical S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	
11.00-11.45	Case Presentation (Faculty) S.Senol, E.Cevrek	Case Presentation (Faculty) Pneumothorax Radiology Volkan S.Senol, E.Cevrek	Case Presentation (Faculty) S.Senol, E.Cevrek	Case Presentation (Faculty) S.Senol, E.Cevrek	Lecture Surgical Treatment of the Pathologies of the Pleural Spaces Volkan S.Senol, E.Cevrek	Lecture Preoperative Evaluation and Diagnostic Procedures in Thoracic Surgery Volkan S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	
11.45-13.00	Lunch							
13.00-13.40	Lecture Interventional Procedures in Thoracic Surgery S.Senol, E.Cevrek	Clinical Experience Surgical Bronchoscopy S.Senol, E.Cevrek	Lecture Spontaneous Pneumothorax and Bullous Disorders S.Senol, E.Cevrek	Lecture Diagnosic Diseases and Surgical Treatment S.Senol, E.Cevrek	Clinical Experience Surgical Volkan S.Senol, E.Cevrek	Clinical Skills Training: Needle Thoracostomy on a Mannequin with Tension Pneumothorax S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	Written Exam
13.50-14.30	Lecture Minimal Invasive Surgical Approaches in Thoracic Diseases S.Senol, E.Cevrek	Clinical Experience Surgical Tube thoracostomy S.Senol, E.Cevrek	Lecture Lung Cancers and Other Tumors of Lung S.Senol, E.Cevrek	Lecture Hemoptysis S.Senol, E.Cevrek	Clinical Experience Inpatient Volkan S.Senol, E.Cevrek	Clinical Skills Training: Assessment Session S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	Oral Exam
14.40-15.20	Lecture Tracheobronchial & Esophageal Foreign Bodies S.Senol, E.Cevrek	Clinical Experience Surgical S.Senol, E.Cevrek	Lecture Mediastinal Diseases and Surgical Treatment S.Senol, E.Cevrek	Case Presentation (Faculty) S.Senol, E.Cevrek	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	
15.30-16.10	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Independent Learning Preparation for the Exam	Program Evaluation Session Review of the Exam Questions, Evaluation of the Clerkship Proor.

Learning Outcomes <i>At the end of this term, student should be able to:</i>	Programme Learning Outcomes	Teaching Methods	Assessment Methods
1.0. Define anatomy of structures related to thoracic surgery including lungs, thoracic wall, mediastinum, major airways and esophagus,	PO.1.1.5.	1, 3, 4	A
2.0. Define necessary workup and invasive procedures in accordance with preliminary diagnosis	PO.1.1.7./PO 1.1.8.	1, 3, 4	A
3.1. Evaluate treatment options for patient according to preliminary diagnosis,	PO.1.1.9./PO .1.1.11.	1, 3, 4	A
3.2. Select appropriate treatment option for patient	PO.1.1.11.	1, 3, 4	A
4.0. Define findings of shock in patients with tension pneumothorax, hemoptysis, or trauma	PO.1.1.3./PO .1.1.6.	1, 3, 4	A
5.0. interpret basic concepts regarding blood transfusion, hemostasis, and coagulation	PO.1.1.10.	1, 3, 4	A
6.0. Interpret basic principles of surgical oncology	PO1.1.9./PO. 1.1.11.	1, 3, 4	A
7.0. Perform Physical Examination of a normal respiratory system and upper digestive system	PO.1.1.5./PO 1.1.6.	3, 4	A

8.0. Perform needle decompression of tension pneumothorax	PO.1.1.10.	4, 5	A, D
9.0. Assess mallampathy level of patient for a safe airway	PO.1.1.5./PO 1.1.6.	1, 3, 4	A
10.0. Locate appropriate point of drainage on patient, according to chest x-ray findings	PO.1.1.5./PO 1.1.6./PO.1.1 .10.	1, 3, 4	A
11.0. Realize physician's responsibilities to provide counseling and education to patient and patient's relatives regarding general health screening and surveillances (such as smoking cessation, colonoscopy, mammography, etc.) according to patient's sex, age and race if appropriate.	PO.1.1.1./PO .1.2.4./PO.2. 3.2.	1, 3, 4	A
12.0. Respect patient-doctor communication and patient privacy	PO.1.2.3./PO 2.2.1./PO.2.5 .2./PO.2.5.3.	1, 3, 4	A
13.0. Obtain complete history with appropriate communication skills and behaving in a good manner towards patient and patient's relatives.	PO.1.1.4.	1, 3, 4	A
14.0. Value providing appropriate transport conditions in accordance with regulations.	PO.1.1.2./PO .2.1.1.	1, 3, 4	A
15.0. Plan basic approach and treatment to traumatized patient.	PO.1.1.3./PO .1.1.6./PO.1. 1.11./PO.1.2. 2./PO.1.3.1./ PO.3.3.2.	1, 3, 4,	A
16.0. Plan initial management and workup tests of patient presented with respiratory insufficiency	PO.1.1.7./PO. 1.1.8./PO.1.1. 9.	1, 3, 4,	A
17.0. Do preliminary diagnosis in thoracic pathologies by going over differential diagnosis	PO.1.1.7./PO. 1.1.8./PO.1.1. 9.	1, 3, 4,	A
18.0. Realize importance of providing necessary information to patient or patient's relatives	PO.1.2.1./PO. 1.2.4.	1, 3, 4,	A
19.0. Manage postoperative wound care and dressing	PO1.1.10./PO. 1.1.11.	3, 4,	A
20.1. Do followup postoperative patients according to vital parameters, fluid and electrolyte balance, and surgical drain outputs,	PO.1.1.9./PO. 1.1.10./PO.1. 1.11./PO.1.1. 12.	1, 3, 4,	A

20.2. Interpret correctly postoperative chest x-rays in order to plan appropriate management	PO.1.1.9./PO.1.1.10.	1, 3, 4,	A
21.0. Refer patient to further health care centers upon indication	PO.1.1.11./PO.1.2.2./PO.1.4.1.	1	A

<b>Teaching Methods:</b>	1: Lecture, 2: Question-Answer, 3: Discussion, 4: Bedside teaching, 5: Other (OSCE)
<b>Assessment Methods:</b>	A: Testing (Multiple Choice and Extended Matching Questions; Structured Oral Exam), B: Presentation, C: Homework, D: OSCE

<b>COURSE CONTENT</b>		
<b>Week</b>	<b>Topics</b>	<b>Study Materials</b>
1	<b>Introductory Session and Lecture</b> (Welcome & Acquaintance "Introduction to Thoracic Surgery and its history)	Materials for the course provided by instructor
1	<b>Lecture</b> Surgical Pathologies of Trachea and Their Treatment	Materials for the course provided by instructor
1	<b>Lecture</b> Esophageal Diseases and Surgical Treatment	Materials for the course provided by instructor
1	<b>Case Presentation (Faculty)</b>	Materials for the course provided by instructor
1	<b>Lecture</b> Topographical Anatomy of the Thorax and Thoracic Incision	Materials for the course provided by instructor
1	<b>Lecture</b> Preoperative Evaluation and Diagnostic Procedures in Thoracic Surgery	Materials for the course provided by instructor
1	<b>Lecture</b> Tracheobronchial & Esophageal Foreign Bodies	Materials for the course provided by instructor
1	<b>Lecture</b> Interventional Procedures in Thoracic Surgery	Materials for the course provided by instructor
1	<b>Clinical Experience</b> Inpatient	Materials for the course provided by instructor
1	<b>Case Presentation (Faculty)</b> Pneumothorax Radiology	Materials for the course provided by instructor
1	<b>Case Presentation (Faculty)</b>	Materials for the course provided by instructor
1	<b>Lecture</b> Radiological Evaluation in Thoracic Surgery	Materials for the course provided by instructor
1	<b>Lecture</b> Hemoptysis	Materials for the course provided by instructor
1	<b>Lecture</b> Mediastinal Diseases and Surgical Treatment	Materials for the course provided by instructor
1	<b>Clinical Skills Training</b> Performing Needle Thoracentesis on a Mannequin with a Tension Pneumothorax	Materials for the course provided by instructor
1	<b>Clinical Skills Training</b> Assessment Session	Materials for the course provided by instructor

1 <b>Clinical Experience</b> Surgical	Materials for the course provided by instructor
1 <b>Lecture</b> Spontaneous Pneumothorax and Bullous Disorders	Materials for the course provided by instructor
1 <b>Lecture</b> Thoracic Trauma I	Materials for the course provided by instructor
1 <b>Lecture</b> Thoracic Trauma II	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Inpatient	Materials for the course provided by instructor
1 <b>Case Presentation (Faculty)</b>	Materials for the course provided by instructor
1 <b>Lecture</b> Lung Cancers and Other Tumors of Lung	Materials for the course provided by instructor
1 <b>Lecture</b> Minimal Invasive Surgical Approaches in Thoracic Diseases	Materials for the course provided by instructor
1 <b>Lecture</b> Benign Lung Diseases & Hydatid Cyst of the Lung	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical Intensive Care Unit	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical Operating Room	Materials for the course provided by instructor
1 <b>Lecture</b> Surgical Treatment of the Pathologies of Pleural Spaces	Materials for the course provided by instructor
1 <b>Lecture</b> Chest Wall Diseases and Surgical Treatment	Materials for the course provided by instructor
1 <b>Lecture</b> Diaphragmatic Diseases and Surgical Treatment	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical Tube Thoracostomy	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical	Materials for the course provided by instructor
1 <b>Clinical Experience</b> Surgical Bronchoscopy	Materials for the course provided by instructor
1 <b>Written Exam</b>	Materials for the course provided by instructor
1 <b>Oral Exam</b>	Materials for the course provided by instructor
1 <b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Clerkship Program	Materials for the course provided by instructor

<b>RECOMMENDED SOURCES</b>	
<b>Textbook</b>	Göğüs Cerrahisi (Kırmızı Kitap), 2. Baskı, Editör Prof Dr Mustafa Yüksel, 2015 Nobel Tıp Kitapevi
<b>Additional Resources</b>	Ders sunumları

<b>MATERIAL SHARING</b>	
<b>Documents</b>	Photocopy shareable.

<b>Assignments</b>	Not Shareable
<b>Exams</b>	Not shareable

<b>ASSESSMENT</b>	
Question Types (Pencil.Paper Tests)	Proportion of Questions
Multiple Choice Questions	45%
<b>Total</b>	<b>45%</b>
Other Assessment Methods and Tools	Proportion
Oral Exam (OE)	50%
Objective Structured Clinical Exam (OSCE)	5%
<b>Total</b>	<b>55%</b>
Pass/Fail Decision	Proportion (in Pass/Fail Decision)
Pencil-Paper Tests	45%
Other Assessments Methods and Tools	55%
<b>Total</b>	<b>100%</b>

<b>COURSE CATEGORY</b>	Compulsory
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<b>COURSE'S CONTRIBUTION TO PROGRAMME</b>						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
<b>PO.1.1.1.</b>	<i>values</i> preventive health services, <i>offers</i> primary prevention (i.e. prevention of diseases for the protection of health), secondary prevention (i.e. early diagnosis and treatment) tertiary prevention (i.e. rehabilitation) and quaternary prevention (i.e. prevention of excessive and unnecessary diagnosis and treatment) services, <i>provides</i> consultancy on these issues.					X
<b>PO.1.1.2.</b>	<i>employs</i> a patient-centered approach in patient management.				X	
<b>PO.1.1.3.</b>	<i>recognizes</i> most frequently occurring or significant clinical complaints, symptoms, signs, findings and their emergence mechanisms in clinical conditions.				X	
<b>PO.1.1.4.</b>	<i>takes</i> medical history from the applicant himself/herself or from the individual's companions.				X	
<b>PO.1.1.5.</b>	<i>does</i> general and focused physical and mental examination.				X	
<b>PO.1.1.6.</b>	<i>interprets</i> findings in medical history, physical and mental examination.					X

PO.1.1.7.	<i>employs</i> diagnostic procedures that are used frequently at the primary health care level.	X	
PO.1.1.8.	<i>selects</i> tests that have evidence-based high efficacy at the primary health care level and <i>interprets</i> results.	X	
PO.1.1.9.	<i>makes</i> clinical decisions using evidence-based systematic data in health care service.	X	
PO.1.1.10.	<i>performs</i> medical interventional procedures that are used frequently at the primary health care level.	X	
PO.1.1.11.	<i>manages</i> healthy individuals and patients in the context of health care services.	X	
PO.1.1.12.	<i>keeps</i> medical records in health care provision and <i>uses</i> information systems to that aim.	X	
PO.1.2.1.	throughout his/her career, <i>communicates</i> effectively with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals, organizations and institutions.	X	
PO.1.2.2.	<i>collaborates</i> as a team member with related organizations and institutions, with other professionals and health care workers, on issues related to health.	X	
PO.1.2.3.	<i>recognizes</i> the protection and privacy policy for health care beneficiaries, co-workers, accompanying persons and visitors.	X	
PO.1.2.4.	<i>communicates</i> with all stakeholders taking into consideration the socio-cultural diversity.	X	
PO.1.3.1.	<i>manages</i> and <i>leads</i> within the health care team in primary health care organization.	X	
PO.1.4.1.	<i>recognizes</i> the health status of the individual and the community and the factors affecting the health, <i>implements</i> the necessary measures to prevent effects of these factors on the health.	X	
PO.2.1.1.	<i>performs</i> medical practices in accordance with the legal framework which regulates the primary health care service.	X	
PO.2.2.1.	<i>recognizes</i> basic ethical principles completely, and <i>distinguishes</i> ethical and legal problems.	X	
PO.2.3.2.	<i>recognizes</i> the individual's behavior and attitudes and factors that determine the social dynamics of the community.	X	
PO.2.5.2.	<i>respects</i> patients, colleagues and all stakeholders in health care delivery.	X	
PO.2.5.3.	<i>displays</i> the proper behavior in case of disadvantaged groups and situations in the community.	X	
PO.3.3.2.	<i>displays</i> appropriate behavior specific to work under stressful conditions.	X	

ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION			
Activities	Quantity	Duration (Hour)	Total Workload (Hour)
Course Duration (1.5 weeks)	7	6	42

Hours for off-the-classroom study (Pre-study, practice, review/week)	20	1	20
Homework	-	-	-
Exam	1	3	3
<b>Total Work Load</b>			65
<b>Total Work Load / 30 (h)</b>			2.17
<b>ECTS Credit of the Course</b>			2