

COURSE INFORMATION					
Course Title	Code	Semester	COURSE INFORMATION		
			Lecture+Practice+Labrotory Hour	Credits	ECTS
Radiology (Clinical Clerkship)	MED515	5/9-10	26+ 14	2	2*

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

<b>Prerequisites</b>	The student that joins this course, should have at least the Phase 3 knowledge level in medical faculty.
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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>	Assoc. Dr. Özgür Sarıca
<b>Instructors</b>	Prof. Dr. Neslihan Taşdelen, MD Prof. Dr. Gazanfer Ekinci, MD Assoc. Dr. Özgür Sarıca, MD Assoc. Dr. O. Melih Topçuoğlu, MD Assoc. Dr. Filiz Çelebi, MD Assoc. Dr. Esin Yencilek, MD Assist. Dr. Ayşegül Görmez, MD Dr. Zeynep Fırat, PhD
<b>Assistants</b>	Dr. Onur Tuncer, MD
<b>Goals</b>	The course aims to equip the clerkship attendees with necessary knowledge and skills to recognize indications of basic and most commonly used radiological modalities and evaluate the results.
<b>Content</b>	For further details please see Academic Program Book of Phase V at <a href="http://med.yeditepe.edu.tr/sites/default/files/phase_5_0.pdf">http://med.yeditepe.edu.tr/sites/default/files/phase_5_0.pdf</a>  Week 1 (Introduction to Radiology) Radiation Physics X-Ray Safety and Protection Advanced MRI and CT Techniques and Postprocessing Neuroradiology Spinal Imaging Gastrointestinal and Hepatobiliary Imaging Cardiac Imaging Imaging of Musculoskeletal System PA Chest Radiograph Chest Imaging Clinical experience  Week 2 Breast Imaging Genitourinary Imaging Vascular Imaging Vascular Interventions Imaging of Head & Neck Case-Based General Review Lecture

Clinical experience  
 Discussion / Journal Club  
 Review of the Exam Questions, Evaluation of the Program

<b>Learning Outcomes</b>	<b>Programme Learning Outcomes</b>	<b>Teaching Methods</b>	<b>Assessment Methods</b>
1. Define the basic radiological modalities (direct radiography, ultrasonography, computerized tomography, magnetic resonance imaging )	1,1,1 -1,1,7 - 1,1,8	1,2,3	A, C
2. Outline basic knowledge on physical principles and mechanisms of basic radiological modalities (direct roentgenogram, ultrasound, computed tomography, magnetic resonance imaging)	1,1,1 - 1,1,7 - 1,1,8	1,2,3	A, C
3. recognize unwanted effects of X-ray radiation	1,1,1 - 1,1,3 - 1,1,4	1,2,3,12	A, C
4. explain ways of protection	1,1,1	1,2,3	A, C
5. choose optimal radiological modality in most commonly encountered pathologies in neurological, abdominal, thoracic, musculoskeletal conditions	1,1,7 - 1,1,8 - 1,1,9	1,2,3,12	A, C
6. choose optimal radiological modality in most commonly encountered breast diseases	1,1,7 - 1,1,8 - 1,1,9	1,2,3,12	A, C
7. choose optimal radiological modality in most commonly encountered vascular diseases	1,1,7 - 1,1,8 - 1,1,9	1,2,3	A, C
8. identify basic emergency conditions on extremity, lung, spinal radiographs	1,1,7 - 1,1,8 - 1,1,9	1,2,3	A, C
9. continue to inform responsible clinician about the radiological findings	1,1,11 - 1,1,12	1,2,3	A, C

**Teaching Methods:** 1: Lecture, 2: Question-Answer, 3: Discussion, 9: Simulation, 12: Case Study

**Assessment Methods:** A: Testing B: Presentation C: Homework

### COURSE CONTENT

<b>Week</b>	<b>Subject</b>	<b>Study Materials</b>
1 <sup>st</sup> day	<b>Introductory Session</b> Introduction to Radiology	Materials for the course provided by instructor

1	<b>Lecture</b> Introduction to Radiology	Materials for the course provided by instructor
1	<b>Lecture</b> Radiation Physics	Materials for the course provided by instructor
1	<b>Lecture</b> X-Ray Safety and Protection	Materials for the course provided by instructor
1	<b>Lecture</b> Neuroradiology	Materials for the course provided by instructor
1	<b>Lecture</b> Spinal Imaging	Materials for the course provided by instructor
1	<b>Lecture</b> Gastrointestinal and Hepatobiliary Imaging	Materials for the course provided by instructor
1	<b>Lecture</b> Cardiac Imaging	Materials for the course provided by instructor
1	<b>Lecture</b> Musculoskeletal Imaging	Materials for the course provided by instructor
1	<b>Lecture</b> PA Chest Radiography	Materials for the course provided by instructor
1	<b>Lecture</b> Chest Imaging	Materials for the course provided by instructor
2	<b>Lecture</b> Breast Imaging	Materials for the course provided by instructor
2	<b>Lecture</b> Genitourinary Imaging	Materials for the course provided by instructor
2	<b>Lecture</b> Vascular Imaging	Materials for the course provided by instructor
2	<b>Lecture</b> Vascular Interventions	Materials for the course provided by instructor
2	<b>Lecture</b> Imaging of Head & Neck	Materials for the course provided by instructor
2	<b>Lecture</b> Case-Based General Review	Materials for the course provided by instructor
2	<b>Lecture</b> Discussion/Journal Club	Materials for the course provided by instructor
2	<b>Assessment Session</b>	
2	<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Program	

<b>RECOMMENDED SOURCES</b>	
<b>Textbook</b>	<ul style="list-style-type: none"> <li>● Grainger and Allison's Diagnostic Radiology</li> </ul>
<b>Additional Resources</b>	<ul style="list-style-type: none"> <li>● Lecture Notes</li> <li>● <a href="http://www.radiopedia.com">www.radiopedia.com</a></li> <li>● <a href="http://www.learningradiology.com">http://www.learningradiology.com</a></li> </ul>

<b>MATERIAL SHARING</b>	
<b>Documents</b>	Via Google classroom
<b>Assignments</b>	Powerpoint presentations
<b>Exams</b>	Not shared

<b>ASSESSMENT</b>	
<b>Questions Types (Pencil-Paper Tests)</b>	<b>Proportion (in Pass/Fail Decision)</b>
Multiple Choice Questions	50%
Extended Matching Questions	5%
Key Features	20%
Short Response Essay Questions	25%
<b>Total</b>	<b>100 %</b>
<b>Other Assessment Methods and Tools</b>	<b>Proportion (in Other Assessments Methods and Tools)</b>
Oral Exam (OE)	90%
Evaluation of Case Presentation (Without Checklist)	5%
Evaluation of Student's Seminar (Without Checklist)	5%
<b>Total</b>	<b>100 %</b>
<b>Pass/Fail Decision</b>	<b>Proportion (in Pass/Fail Decision)</b>
Pencil-Paper Tests	50%
Other Assessments Methods and Tools	50%
<b>Total</b>	<b>100 %</b>

<b>COURSE CATEGORY</b>	Expertise/Field Courses
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<b>COURSE'S CONTRIBUTION TO PROGRAMME</b>						
No	Program Learning Outcomes	Contribution				
		1	2	3	4	5
<b>1.</b>	<b>Basic Professional Competencies</b>					
1.1.	Clinical Competencies					x
1.2.	Competencies Related to Communication					x
1.3.	Competencies Related to Leadership and Management			x		
1.4.	Competencies Related to Health Advocacy					x
1.5.	Competencies Related to Research			x		
1.6.	Competencies Related to Health Education and Counseling					x

<b>2. Professional Values and Perspectives</b>	
2.1. Competencies Related to Law and Legal Regulations	x
2.2. Competencies Related to Ethical Aspects of Medicine	x
2.3. Competencies Related to Social and Behavioral Sciences	x
2.4. Competencies Related to Social Awareness and Participation	x
2.5. Competencies Related to Professional Attitudes and Behaviors	x
<b>3. Personal Development and Values</b>	
3.1. Competencies Related to Lifelong Learning	x
3.2. Competencies Related to Career Management	x
3.3. Competencies Related to Protection and Development of Own Physical and Mental Health	x

<b>ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION</b>			
Activities	Quantity / day	Duration (Hour)	Total Workload (Hour)
Course Duration (2 weeks)	10	4	40
Hours for off-the-classroom study (Pre-study, practice, review/week)	10	2	20
Homework	1	2	2
Exam	2	2	4
<b>Total Work Load</b>			66
<b>Total Work Load / 30 (h)</b>			2.2
<b>ECTS Credit of the Course</b>			2