



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Medical Imaging Techniques III Application							
Course Code		TG207		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit	7	Workload	175 ( <i>Hours</i> )	Theory	0	Practice	8	Laboratory	0
Objectives of the Course		The aim of this course is to give knowledge and skills about Magnetic Resonance and Computerized Tomography Imaging in classroom and hospital conditions.							
Course Content		Magnetic Resonance Imaging, Cranial MR Imaging, Neck MR Imaging, Thorax MR Imaging, Upper Abdominal MR Imaging, Lower Abdomen MR Imaging, Vertebra MR Imaging, Upper Extremity MR Imaging, Lower Extremity MR Imaging, MR Angiography, Preparing for CT Imaging, Head and neck CT Imaging, Vertebra CT Imaging, Thorax and Abdomen CT Imaging, Extreme CT Imaging, Advanced CT Imaging Methods							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Practice Examination	1	100

### Recommended or Required Reading

1	İnternet kaynakları: <a href="http://www.rtstudents.com/radiology/history-of-radiology.html">http://www.rtstudents.com/radiology/history-of-radiology.html</a> \n İnternet resources
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Week	Weekly Detailed Course Contents	
1	Practice	Magnetic Resonance Imaging Device applications
2	Practice	Magnetic Resonance Imaging Physics I applications
3	Practice	Magnetic Resonance Imaging Physics II applications
4	Practice	MRI patient preparation, Indications and Contraindications applications
5	Practice	Cranial-Neck-Vertebra MRI applications
6	Practice	Thorax-Abdomen MRI applications
7	Practice	MR Angiography, Advanced MRI applications
8	Practice	IT Device, IT patient preparation applications
9	Practice	IT Physics applications
10	Practice	Cranial-neck-vertebra CT Imaging applications
11	Practice	Thorax-abdominal CT imaging applications
12	Practice	CT Angiography, Advanced CT Imaging applications
13	Practice	CT-MRG Contrast materials applications
14	Practice	CT-MRI Patient Safety, CT dose-reducing Parameters applications
15	Practice	Practice Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Practice	14	2	8	140
Individual Work	5	1	4	25
Practice Examination	1	2	8	10
Total Workload (Hours)				175
[Total Workload (Hours) / 25*] = ECTS				7
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	Evaluates image quality in Magnetic Resonance Imaging and Computer Tomography
2	Applies imaging methods in computerized tomography.
3	Selects parameters used in computerized tomography



4	Learn the working principles, structure and generations of computerized tomography.
5	Plans and sequences used in Magnetic Resonance Imaging
6	Magnetic Resonance Imaging and Computerized Tomography
7	Acquire Magnetic Resonance Imaging Physics

#### Programme Outcomes (Medical Imaging Techniques)

1	To be able to get information the working principles of Radiology, Nuclear Medicine and Radiotherapy devices, and distinguish their components, use these devices in accordance with operating instructions.
2	To be able to perform the procedures in accordance with the examination of Radiology and Nuclear Medicine imaging .
3	To be able to apply the radiotherapy treatment, planned by radiation physicist with instruction of radiotherapist.
4	To be able to develop and perform the film printing of the images that obtained by imaging techniques of Radiology, Nuclear Medicine
5	To be able to evaluate the images that obtained by imaging techniques of Radiology, Nuclear Medicine in terms of radiographic quality and takes the necessary measures.
6	To be able to know the medical and radiologic terminology, and pronounce and use them correctly
7	To be able to take the necessary measures in accordance with the rules of Radiation safety and protection from radiation, and apply them.
8	To be able to distinguish the anatomical structures on images, obtained by the conventional and cross-sectional imaging techniques of Radiology, Nuclear medicine.
9	To be able to communicate well with patient, their family and the hospital staff.
10	To be able to move with own professional duties, powers and responsibilities of the consciousness and apply the rules of professional ethics.
11	To be able to adapt to a multi-disciplinary team work.
12	To be able to have a basic knowledge of human physiology.
13	To be able to distinguish anatomical structures.
14	To be able to establish a cause-and-effect relationship between events.
15	To be able to have the ability of analytical thinking and problem solving.
16	To be able to apply the basic principles of first aid.
17	It has basic knowledge about human anatomy
18	Understanding the basic concepts and principles of physics while providing, in the medical field and in particular medical imaging students better understand the issues involving technical vocational courses
19	OHS 'basic concepts; work accidents, occupational diseases, occupational physicians, occupational safety specialist, ISGB, OSGB, hazard classes, risk assessment, OHS employee representatives is
20	Have basic knowledge about basic medical practices and makes applications

#### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6	L7
P1	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5
P4	5	5	5	5	5	5	5
P5	5	5	5	5	5	5	5
P6	5	5	5	5	5	5	5
P7	5	5	5	5	5	5	5
P8	5	5	5	5	5	5	5
P10	5	5	5	5	5	5	5
P11	5	5	5	5	5	5	5
P15	5	5	5	5	5	5	5
P18	5	5	5	5	5	5	5
P20	5	5	5	5	5	5	5

