

TOROS ÜNİVERSİTESİ

Vocational School
Medical Imaging Techniques

Course Information

EQUIPMENT MAINTENANCE AND REPAIR IN RADIOLOGY					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
TGT122	Spring	2	2	3	3

Prerequisites and co-requisites	
Language of instruction	Turkish
Type	Required
Level of Course	Associate
Lecturer	Lec. Dr. Ekrem ALTUNEL
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	The characteristics of the devices used will be comprehended.
Contents of the Course	The formation of X-rays (electron target interaction), the formation of X-rays (anodic heat), the formation of X-rays (characteristic radiation), the formation of X-rays (bremsstrahlung radiation), X-ray emission (X-ray quantity), Radiographic quality, film factors, geometric factors, clinical significance of increased radiographic quality, strengthening screens, luminescence, screen characteristics, screen-film combination, cassette, maintenance of screens, fluoroscopic screens , Fluoroscopy, practical fluoroscopic technique, image enhancement, television, cinephography, tomography.

Learning Outcomes of Course

#	Learning Outcomes
1	Based on the proficiency gained at the secondary level, it has theoretical and practical knowledge at the basic level supported by textbooks, application tools and other resources that contain up-to-date information in the field of Radiology,
2	Radiology has the knowledge of accessing, evaluating and applying basic scientific knowledge in the field of equipment, tools and maintenance.
3	Defines the importance of ethical principles and ethics committees for individuals and society.
4	To use knowledge and skills to use knowledge and skills at basic level in the field of radiology equipment maintenance and repair, take place responsibility / responsibility in planned studies.
5	Radiology uses basic computer programs and related technologies related to the equipment and maintenance area.
6	Radiology carries out a task independently by using the basic knowledge that it has about the equipment and maintenance area.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Maintenance and cleaning of the x-ray machine.	Lecture, Discussion, Question-Answer
2	Bath chemistry	Lecture, Discussion, Question-Answer
3	X-ray tube	Lecture, Discussion, Question-Answer
4	Operator consul	Lecture, Discussion, Question-Answer
5	X-ray confiners	Lecture, Discussion, Question-Answer
6	Formation of scattered radiation	Lecture, Discussion, Question-Answer

7	Control of scattered radiation	Lecture, Discussion, Question-Answer
8	Midterm	
9	Grid, grid characteristics	Lecture, Discussion, Question-Answer
10	grid performansının ölçülmesi	Lecture, Discussion, Question-Answer
11	Radiographic parameters	Lecture, Discussion, Question-Answer
12	Latent image	Lecture, Discussion, Question-Answer
13	özel X-ışını cihaz ve yöntemleri	Lecture, Discussion, Question-Answer
14	Screen maintenance	Lecture, Discussion, Question-Answer
15	Screen maintenance	Lecture, Discussion, Question-Answer
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Temel Radyoloji Tekniği Editör Prof.Dr. Tamer Kaya		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Based on the proficiency gained at the secondary level, it has theoretical and practical knowledge at the basic level supported by textbooks, application tools and other resources that contain up-to-date information in the field of Radiology,	3	1,2
2	Radiology has the knowledge of accessing, evaluating and applying basic scientific knowledge in the field of equipment, tools and maintenance.	6	1,2
3	Defines the importance of ethical principles and ethics committees for individuals and society.	4	1,2
4	To use knowledge and skills to use knowledge and skills at basic level in the field of radiology equipment maintenance and repair, take place responsibility / responsibility in planned studies.	4,7,14	1,2
5	Radiology uses basic computer programs and related technologies related to the equipment and maintenance area.	2	1,2
6	Radiology carries out a task independently by using the basic knowledge that it has about the equipment and maintenance area.	5	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	4	56
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	2	28
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	3	3

8	Midterm Exam	0	0	0
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	1	3	3
14	Final Exercise	0	0	0
15	Preparation for Final Exam	0	0	0
16	Final Exam	0	0	0
				90