AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Medical Imaging Techniques I Application								
Course Code	TG107		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	4	Workload	101 *(Hours)*	Theory	0	Practice	4	Laboratory	0
Objectives of the Course	With this course students will be in Radiology unit; It is aimed to acquire the qualifications related to radiography by preparing the x-ray device, computerized x-ray device, digital x-ray device, portable x-ray devices for radiographic examination in line with national and international standards. At the same time, it is aimed to be able to prepare the physical environment and materials of the darkroom, film bath and printing processes in accordance with the darkroom working conditions in the Radiology departments.								
Course Content	In the radiology unit; To acquire the qualifications related to obtaining the radiography by preparing the x-ray device, the computerized x-ray device, the digital x-ray device and the portable x-ray devices for the radiographic examination in accordance with the national and international standards and to prepare the physical environment and materials of the dark room, film contains the necessary academic knowledge to prepare the bathroom and printing processes.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study								
Name of Lecturer(s)	Fatma KURTOĞLU, Ins. Aslı ÇANAKÇI								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Practice Examination	1	110

Recommended or Required Reading

1	Basic Radiology Technique, Nobel & Güneş Book Printing, 1997.

Week	Weekly Detailed Course Contents	
1	Practice	Patient Preparation application
2	Practice	Radiological Terminology application
3	Practice	Radiological Anatomy application
4	Practice	X-Ray Device Construction I application
5	Practice	X-Ray Device Construction II application
6	Practice	X Ray Formation and Properties application
7	Practice	Radiography acquisition applications
8	Practice	Radiated Radiation and Affected Parameters application
9	Practice	Latent-manifest Image Formation, Film Bathroom and Printing Techniques application
10	Practice	Dark Room Quality Control Operations application
11	Practice	Parameters Affecting Resolution in Radiography application
12	Practice	Noise in Radiography, Causes of Edge Sickness application
13	Practice	Artifacts in radiography application
14	Practice	Digital Radiography Equipment, Detector application
15	Practice	Practice Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Practice	14	0	4	56
Individual Work	10	1	3	40
Final Examination	1	4	1	5
			Total Workload (Hours)	101
			[Total Workload (Hours) / 25*] = **ECTS**	4

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes	
1	It performs the quality control procedures of the darkroom equipment and materials in accordance with the working conditions of radiology departments and takes corrective precautions when necessary.
2	It performs film bathing and printing processes using film bathing and printing techniques appropriate to the working conditions of radiology departments.
3	Obtains radiography in line with national and international standards related to radiation.
4	For radiography examination, the patient prepares conventional, computerized, digital and portable x-ray apparatus.
5	Detects scattered radiation and takes precautions
6	Takes necessary precautions to prevent electrical circuits of x-ray apparatus, tube structure, tube defects and defects
7	Know image formation and the factors that affect it
8	Learn the properties of the X-ray, its properties, the interaction of the X-ray with the substance, and the properties that enable it to be used in diagnosis.

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 tıo 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, İSGB, 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	L8
P1	5	5	5	5	5	5	5	5
P2	5	5	5	5	5	5	5	5
P3	5	5	5	5	5	5	5	5
P4	5	5	5	5	5	5	5	5
P5	5	5	5	5	5	5	5	5
P6		5	5	5	5	5	5	5
P7	5	5	5	5	5	5	5	5
P8	5	5	5	5	5	5	5	5
P11	5	5	5	5	5	5	5	5
P14	5	5	5	5	5	5	5	5