



## Course Syllabus of Radiographic Technique 1

Faculty: Faculty of Medicine and Health Sciences

Department: Health Sciences

Program: Bachelor in Radiologic Technology & Medical Imaging

I. General information about the course instructor :							
Name	Dr. Amin Mohsen Amer						
Location & phone number	UST- 775948767	Sat	Sun	Mon	Tue	Wed	Thu
Email	aminalflahi@gmail.com				√		

II. General information about the course:					
1 Course Title :	Radiographic Technique 1				
2 Course Code and Number :	BMI223				
3 Credit Hours :	Credit Hours				Total
	Theoretical	Seminar/Tutorial	Practical	Training	
	3	-	2	-	5
4 Study Level and Semester:	2nd level / 2nd semester				
5 Pre-requisites :	BMI217				
6 Co-requisites :	None				
7 Program in which the course is offered:	Bachelor in Radiologic Technology & Medical Imaging				
8 Teaching Language:	English				
9 Instruction location:	University of Science and Technology, Sana'a, Yemen				

III. Course Description :	
<p>This course will introduce to and familiarize the student with the basic routine of radiographic positioning, exposure factors, shielding techniques, and related terminology of the chest, upper and lower limbs radiography. Demonstration sessions in the x-ray unit will be conducted and actual radiographs will be viewed for analysis of proper positioning and overall image quality, related disease processes for each of exams included in this course. The teaching strategies will include lectures , intensive practice sessions in radiographic imaging lab with collaborative learning, dialogue and discussion. The students will be evaluated through report, written exam and practical exam. Radiographic imaging course is a pre-requisite course.</p>	

عميد الكلية:  
د. عبدالله المخلافي

المراجع :  
د. صدام الزوفي  
د. مجاهد نصار

الموصف:  
أمين الفلاحي



#### IV. Course Aims: This course is aimed to:

1. Enhance student knowledge related to positioning and patients scanning using general radiographic system .
2. Enable student to apply appropriate radiographic examinations and exposure factors for the chest, upper and lower limbs.
3. Improve the student skills related to radiographic anatomy of different patient positions and radiographic technique.
4. learn student the comprehensive skills of applying standards in radiographic scanning procedures based on quality assurance and radiation protection.
5. Provide student the fundamental skills to analyze and assess image quality according to the standard issues.

#### V. Course Intended Learning Outcomes (CILOs) :

1. Describe the comprehensive skills of standards radiographic procedures based on quality assurance and protection principles for imaging chest, upper and lower limbs .
2. Recognize essential skills required to improve patient care according to the patient health and psychological state .
3. Identify related anatomy in imaging on the radiographic image of chest, upper and lower limbs.
4. Analyze the radiographic image images according to the criteria and recognize the artifacts or limitations if occur during the general radiographic imaging process of chest, upper and lower limbs.
5. Correlate the radiographic image quality regarding to the QA issues and standards .
6. Operate safely the radiographic imaging modalities according to the standard manual operation (manufacturer's instructions) for chest, upper and lower limbs radiographic procedures .
7. Apply the ALARA principle to protect the patients, and others during general radiographic imaging process of chest, upper and lower limbs.
8. Perform the QA tests and procedures to ensure optimal operation of radiographic imaging modalities .
9. Practice suitable preparation and positioning in radiographic imaging process to improve diagnosis and patient satisfaction.
10. Work independently or as a team member and effectively communicate with the teaching staff and colleagues to identify, analyze and understand emerging issues.

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إدارة ضمان الجودة والاعتماد  
مستند  
APPROVED

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VI. Course Contents				
Theoretical Aspect:				
No.	Course Topics/Units	Sub-topics	Week due	Contact Hours
1	Introduction, principles and terminology	- principles and terminology of conventional radiographic technique	1 <sup>st</sup>	2
2	anatomy and positioning related to chest radiography	- Introduction and anatomy review - Routines projections - PA - Lateral - Special projections - AP lordotic - Anterior oblique	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
3	anatomy and positioning related to upper airways radiography	- Introduction and anatomy review - Routines projections - Lateral - AP	4 <sup>th</sup> , 5 <sup>th</sup>	4
4	anatomy and positioning related to upper extremity radiography	- Introduction and anatomy review - Routine and some special projections of fingers, hand, wrist, forearm and arm	6 <sup>th</sup> , 7 <sup>th</sup>	4
5	Mid-term exam		8 <sup>th</sup>	2
6	anatomy and positioning related to shoulder joint radiography	- Introduction and anatomy review - Routine and some special projections of shoulder girdle	9 <sup>th</sup>	2
7	anatomy and positioning related to the lower extremity radiography	- Introduction and anatomy review - Routine and some special projections of toes, foot, ankle, leg, knee joint, and femur	10 <sup>th</sup> , 11 <sup>th</sup>	4
8	anatomy and positioning related to the hip joint radiography	- Introduction and anatomy review - Routine and some special projections of hip joints	12 <sup>th</sup>	2
9	Image critique	- Image criteria subtopic - Structure shown - Positioning - Exposure factor - CR and markers	13 <sup>th</sup>	2
10	normal and abnormal findings in the radiograph	- Radiographic anatomy and pathology - normal and abnormal findings in the radiograph of parts being studied in this course	14 <sup>th</sup>	2
11	Final exam		15 <sup>th</sup>	2
Total number of weeks and hours			15	30



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:Second: Clinical Aspects			
No.	Clinical topics	Week due	Contact Hours
1	Introduction to radiographic technique lab (components, principles and safety)	1 <sup>st</sup>	2
2	Procedures of upper airways radiography demonstration	2 <sup>nd</sup> , 3 <sup>rd</sup>	4
3	Procedures of chest radiography demonstration	4 <sup>th</sup> , 5 <sup>th</sup>	4
4	Procedures of upper limb radiography demonstration	6 <sup>th</sup> , 7 <sup>th</sup>	4
5	Procedures of shoulder girdle radiography demonstration	8 <sup>th</sup>	2
6	Procedures of lower limb radiography demonstration	9 <sup>th</sup> , 10 <sup>th</sup> , 11 <sup>th</sup>	6
7	Image viewing and critique	12 <sup>th</sup> , 13 <sup>th</sup>	4
8	Final exam	14 <sup>th</sup>	2
Total number of weeks and hours		14	28



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