



Kingdom of Saudi Arabia

**T6. Course Specifications
(CS)**

Course Specifications

Institution: Najran University	Date: 31-03-2017
College/Department : Applied medical sciences / Radiological sciences	

A. Course Identification and General Information

1. Course title and code: Basics of General Radiographic Investigations 223			
2. Credit hours : 3 (2+1)			
3. Program(s) in which the course is offer. : Bachelor of Radiological sciences (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course Fadul Galal Ahmed (Faculty member in the male student section) Dr. Samia Fathelrhman (Faculty member in the female student section)			
5. Level/year at which this course is offered : level 4 / Second year			
6. Pre-requisites for this course (if any): Anatomy -2 (201 RAD-2)			
7. Co-requisites for this course (if any): None			
8. Location if not on main campus : Main campus			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	100
b. blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. other	<input type="checkbox"/>	What percentage?	<input type="text"/>
Comments: The lecture involves : Practice good presentation techniques Effective questioning Students discussion			



B- Objectives

<p>1. What is the main purpose for this course?</p> <p>At the end of this course student should be able to :</p> <ul style="list-style-type: none">• Demonstrate the basic steps involved in performing radiological investigations.• Identify the basic and additional projections for radiological investigations on phantoms for the limbs, chest, skull, and spine• Select correct exposure factors for each projection.• Discover any technical or pathological abnormalities in resultant images.• Apply basic radiographic examinations of upper and lower limbs, chest .abdomen, pelvis, spine and skull.
<p>2. Briefly describe any plans for developing and improving the course that are being implement. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)</p> <ul style="list-style-type: none">• Updating the textbooks.• Explain strategy of the course in the beginning of the semester.• Encourage the students to see more details in web sites and reference books in the library.• Regular feedback from students Discussing some selected problems in each chapter

C. Course Description (Note: General description in the form used in Bulletin or handbook)

<p>Course Description:</p> <p>This course introduces students to and familiarize them with the applications of the basic general x-ray examinations, plain non-contrast radiography. The student will be able to correctly position a patient for upper and lower limb examinations, chest, pelvic, skull, abdomen and lumbar spine. The student will be able to select the appropriate radiographic projections to demonstrate pathology, fracture or any specified anatomical feature, and to correctly calculate and determine exposure factors required to obtain diagnostic radiographs. In addition, this course will give the knowledge and applications for patient care and radiation protection. The trend towards digital imaging techniques will be emphasize.</p>

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Theoretical topics		
<ul style="list-style-type: none"> • Introduction to Radiographic techniques • Positioning terminology. • Radiography of the chest. 	3	6
<ul style="list-style-type: none"> • Radiography of the upper and lower limbs. • Characteristics of a good quality radiographs 	3	6
<ul style="list-style-type: none"> • Skull radiographic base lines. • Radiography of spine (cervical and thoracic) 	2	4
Med-term Exam	1	1
<ul style="list-style-type: none"> • Radiography of spine(lumbar ,sacrum and coccyx) • Radiography of skull (cranial bones) • Radiography of skull (facial bones and sinuses) 	3	6
<ul style="list-style-type: none"> • Radiography of skull (special views) • Radiography of the abdomen and pelvis 	2	4
Revision	1	1

List of Topics	No. of Weeks	Contact hours
Practical topics		
<ul style="list-style-type: none"> • Introduction to Radiographic equipment 	1	2
<ul style="list-style-type: none"> • Radiography of the chest. 	1	2
<ul style="list-style-type: none"> • Radiography of the upper limbs. 	1	2
<ul style="list-style-type: none"> • Radiography of the lower limbs. 	2	4
Med-term Exam	1	2
<ul style="list-style-type: none"> • Radiography of spine (cervical and thoracic) 	2	4

• Radiography of spine(lumber ,sacrum and coccyx)	2	4
• Radiography of skull (cranial bones)	2	4
• Radiography of the abdomen and pelvis	2	4
Revision	1	2

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	30	0	0	30	0	60
Credit	30	0	0	15	0	3

3. Additional private study/learning hours expected for students per week.

3

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1-1	Describe the principles of radiographic imaging equipment and techniques during general x-ray investigations.	Lectures, demonstrations in the lab, group discussion.	Written mid-semester and final exams, practical exams and quizzes.
1-2	State the methods of patient preparation, patient care and protection during general x-ray investigations.	Lectures, demonstrations in the lab, group discussion.	Written mid-semester and final exams, practical exams and quizzes.
1.3	Recognize the appearance of human anatomy in general x-ray radiograph.	Lectures, demonstrations in the lab, group discussion.	Written mid-semester and final exams, practical exams and quizzes.
2.0	Cognitive Skills		
2.1	Explain the essential sciences concepts necessary for applications of general x-ray investigations.	Lectures, demonstrations in the lab, group discussion.	Written mid-semester and final exams, practical exams and quizzes.
2-2	Estimate the techniques appropriate for applications of general x-ray investigations.	Lectures, demonstrations in the lab, group discussion.	Written mid-semester and final exams, practical exams and quizzes.
3.0	Interpersonal Skills & Responsibility		
3.1	Demonstrate ethical and legal manners during performance	Demonstrations in the lab, group discussion	Observation Card of Student's Performance and practical exams.
4.0	Communication, Information Technology, Numerical		
4.1	Operate effectively the different informational resources including the library resources and websites in addition to extracting information and data in during general x-ray exams	Demonstrations in the lab, group discussion, Assignments.	Observation Card of Student's Performance and practical exams.

5. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Quizzes & HW	2 nd – 15 th	5
2	Theoretical mid-term exam	7	20
3	Practical mid-term exam	8	10
4	Presentation	10	3
5	Lab reports	1 st – 15 th	2
6	Practical final exam	16	20
7	Theoretical final exam	17	40
8	Total		100

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Six office hours per week offered to support students individually.
- Reachable via email.
- Personal web pages of academic members staff in university website.



E Learning Resources

1. List Required Textbooks :-
<ul style="list-style-type: none"> Philip W. Ballinger, Eugene D. Frank, Vinita Merrill, Eugene D. Frank, Merrill's Atlas of Radiographic Positions & Radiologic Procedures: 3 Volume Set. Edition 10.
2. List Essential References Materials (Journals, Reports, etc.)
<ul style="list-style-type: none"> Stewart Whitley, Adrian Moore, Chrissie Alsop, Charles Sloane, Graham Hoadley, Clarks Positioning in radiography, 12th edition (2005). K.Bontrager. Text book of radiographic positioning and related anatomy. Fifth edition, ISBN-13: 978-0323012195, 2001.
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
<ul style="list-style-type: none"> http://www.diagnosticimaging.com/ http://www.journals.elsevierhealth.com/
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
<ul style="list-style-type: none"> https://www.e-radiology.net 1. https://www.wiki radiography.com
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.
Lab. Notes distributed to the students by the lecturer

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
<ul style="list-style-type: none"> Lecture room (8 x 15m) equipped with about 20 student seats, Lab. (8 x 15 m) equipped with about 20 student seats.
2. Computing resources (AV, data show, Smart Board, software, etc.)
<ul style="list-style-type: none"> White Board, computer, Data Show , Overhead projector and laptop.
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)
<ul style="list-style-type: none"> Library, and Seminar Room and Wi-Fi internet connections

G Course Evaluation and Improvement Processes



<p>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching</p> <ul style="list-style-type: none"> • University online questionnaire for evaluation the course by students. • Observing the students opinions recorded in the college student site. • Appeal & suggestions box.
<p>2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department</p> <p>Teaching is evaluated through:</p> <ul style="list-style-type: none"> • Student assessments • Evaluation of head department • Self-evaluation & the instructor responses • Annual course review- report prepared by course tutor • Periodic review and evaluation- external panel involved . • Peer teaching observation.
<p>3 Processes for Improvement of Teaching</p> <ul style="list-style-type: none"> • Regular updating- professional and training. • Staff to hold formal teaching qualifications. • Updating of teaching resources • Program learning outcomes are reviewed • Independent evaluation of the program • Workshops held by skills development unit • Annual reports of External Examiner
<p>4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)</p> <ul style="list-style-type: none"> • Check marking by an independent faculty member . • Check marking of assignment by peer review
<p>5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <ul style="list-style-type: none"> • Regular course team meetings and comprehensive annual review and planning (by department staff) • Study the results of the course learning outcome assessment • Continuous support and monitoring by learning & teaching committee of quality and development deanship.



Name of instructor: FADUL GALAL AHMED

Signature: 


Date Report Completed 03/07/1438H

Name of field experience teaching staff: FADUL GALAL AHMED

Signature: 

Date Report Completed 03/07/1438H

Program coordinator: Alfatih Hasan Mohamed Albadri

Signature: 

Date: 03/07/1438 H

Name of Instructor: Dr. Samia Abdelgauom Ahmed

Signature: 

Date Report Complete: 21/07/1438 H

Name of Course Instructor Dr. Samia Abdelgauom Ahmed

Signature: 

Date Report Complete: 21/07/1438 H

Program Coordinator :Dr. Mawahib Sayed Ahmed Aldosh

Signature: 

Date Received: 04/9/1438