

**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**



Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: Alkitab University

Faculty/Institute: Medical Technology College

Scientific Department: Radiological Techniques


Academic or Professional Program Name Radiological Techniques


Final Certificate Name: Bachelor's of Medical laboratory Technology

Academic System courses and yearly

Description Preparation Date: The approved program is prepared by the Sectorial committee in the Ministry of Higher Education and Scientific Research

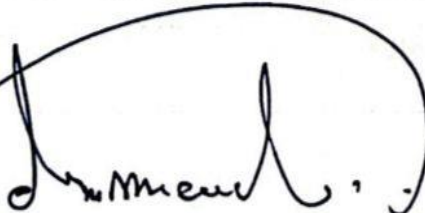
File Completion Date: 2024

Signature: 
Ass. Prof. Dr. Ashby Mohammed
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Head of Department Name:
Date: 2024/4/6

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Scientific Associate Name:

Date: 7-Apr-2024

The file is checked by: 

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 14 AP 1446 هـ الدكتور

Signature:

احمد مازن ابراهيم



Approval of the Dean

Dr. Saifuddin Saibir Alh



1. Program Vision

Preparing and qualifying students to meet the requirements of the public and private sector labor market for Radiological Techniques through diversification of methods of learning and education and training students to apply the acquired knowledge and skills to solve health problems.

2. Program Mission

Providing distinguished academic programs in the field of theoretical and practical, in order to comply with international standards of academic quality.

2. Encouraging and developing scientific research in the fields
3. Preparing a stimulating environment for faculty members to develop their knowledge and educational and research skills
4. – Building and developing partnership with the governmental and private sectors and the community with all its various institutions

3. Program Objectives

Preparing specialized cadres with high skill aspects specialized in analysis Radiological Techniques, with efficiency and high quality of theoretical and practical education.

4. Program Accreditation

Ministry of Higher Education and Scientific Research and corresponding colleges

5. Other external influences

There is no external sponsor for the program

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	11	26	%28.9	
College Requirements	9	37	%23.6	
Department Requirements	16	128	%42.1	
Summer Training	1	1	%2.6	
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
First year first semester				
	KU MT RAD 111	Anatomy of the head and neck	5	2
	KU MT RAD 112	Chemistry principles	4	2
	KU MT RAD 113	Medical and optical physics 1	5	3
	KU MT RAD 114	Biology 1	2	4
	KU MT RAD 115	Computer principles 1	2	1
	KU MT RAD 116	English Language	-	3
	KU MT RAD 117	Human Rights and democracy	-	1

First year Second semester				
	KU MT RAD 111	Anatomy of body systems	2	2
	KU MT RAD 112	physics of atom	2	2
	KU MT RAD 113	Systemic physiology	2	2
	KU MT RAD 114	Computer principles 2	2	2
	KU MT RAD 115	Medical Terminology	2	2
	KU MT RAD 116	Biosafety and Security	1	2
	KU MT RAD 117	Arabic Language	2	-
Second year first semester				
	KU MT RAD 211	Conventional Radiological Equipment techniques	2	4
	KU MT RAD 212	Radiographic techniques for upper limbs	2	4
	KU MT RAD 213	Special radiological procedures of gastrointestinal tract and bones	2	4
	KU MT RAD 214	Radiological anatomy of upper limbs	2	2
	RAD101 05	Fundamentals of radio-physics	2	2
	RAD101 06	Fundamentals of radiation protection	2	2
Second year second semester				
	KU MT RAD 211	Computed tomography Equipment techniques	2	4
	KU MT RAD 212	Radiographic techniques for lower limbs	2	4

	KU MT RAD 213	Special radiological procedures of biliary and reproductive system	2	4
	KU MT RAD 214	Radiological anatomy of lower limbs	2	2
	KU MT RAD 215	Physics of computed tomography	2	2
	KU MT RAD 216	جرائم حزب البعث البائد	1	-
Third year				
	KU MT RAD 3.1	Radiologic anatomy2	2	2
	KU MT RAD 3.2	Radiographic Techniques 2	2	4
	KU MT RAD 3.3	Radiological medical equipment technologies2	2	4
	KU MT RAD 3.4	Special radiological procedures 2	2	4
	KU MT RAD 3.5	Pathology	2	2
	KU MT RAD 3.6	RADIATION PHYSICS 2	2	2
	KU MT RAD 3.7	RADIATION PROTECTION 2	1	2
Forth year				
	KU MT RAD 4.1	Principle of Medicine & surgery	2	3
	KU MT RAD 4.2	Computed tomography	2	4
	KU MT RAD 4.3	MRI	2	4
	KU MT RAD4.4	Ultrasound imaging	2	4
	KU MT RAD 4.5	Graduation Research Project	--	--

8. Expected learning outcomes of the program

A- Knowledge and Understanding

1- Identification of chemical compound and how to handle with them

<p>2- the relationships between the chemistry and the specialized materials of X-ray equipments</p> <p>3- to commit themselves with special chemistry which studied with X-ray</p>	
Learning Outcomes 1	Learning Outcomes Statement 1
Skills	
<p>1 -from practical study in lab. The students acquisition different Marathi esp. with treated chemicals with care and patient</p> <p>2- student may received an experience in the writing and publishing of researches</p> <p>3- susceptibility in the field of scientific development and the broad thinking and solving problem</p>	Learning Outcomes Statement 2
Learning Outcomes 3	Learning Outcomes Statement 3
Ethics	
<p>The use of current advanced means to connect the theoretical material to the student through recent lectures from international universities and display of documentary films related to the lecture.</p> <p>Practical part in the laboratory and conduct important experiments for the student himself in obtaining and analyzing the results</p>	Learning Outcomes Statement 4
Learning Outcomes 5	Learning Outcomes Statement 5

9. Teaching and Learning Strategies

- Active participation in the classroom is evidence of the student's commitment and responsibility
- 2 - Semester and final tests express commitment and cognitive and skill achievement
- 3 - Commitment to the specified deadline in preparing the required duties and reports

10. Evaluation methods

- 1- Interaction inside the lecture hall
- 2- Homework assignments
- 3- Active participation in the lesson
- 4- Commitment to the specified time in attending lectures and laboratories
- 5 - After daily, semester and final tests on commitment and desire to achieve knowledg

11. Faculty

Faculty Members

Academic Rank	Specialization	Special Requirements/Skills (if applicable)	Number of the teaching staff
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	General	Special			Staff	Lecturer
Professor	1				1	
Assistant Professor	3				2	1
Teacher	8				8	
assistant teacher	6				5	1

Professional Development

Mentoring new faculty members

- 1- Adopting practical workshops to increase teaching skills in scientific and educational aspects.
- 2- Using modern means to search for new scientific information (scientific and medical websites)
- 3- Participation in scientific seminars and conferences to learn about the most important developments in the field of laboratories .

Professional development of faculty members

1. Involve teachers in courses that help in building a supportive organizational culture.
2. Utilize advanced scientific and educational techniques and encourage teachers to attend training programs.
3. Encourage teachers to participate in scientific courses.
4. Encourage teachers to partake in the college's scientific conferences.
5. Develop a sustainable program for organizing scientific seminars in the department.
6. Organize research and discussion sessions.

12. Acceptance Criterion

According to the controls specified by the Ministry of Higher Education through admissioncentral

13. The most important sources of information about the program

- 1- Ministry of Higher Education and Scientific Research
- 2- University Registration Directorate
- 3- Department management
- 4 – The college’s official website on the International Information Network (Internet

14. Program Development Plan

- 1- Holding introductory seminars about the program
- 2- Holding professional development courses for department departments
- 3- Vocational training in government or private laboratories recognized by health departments

Program Skills Outline

			Required program Learning outcomes										
Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics		
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3
KU MT RAD 111	Anatomy of skeleton	Basic	√	√	√	√							
KU MT RAD 112	General physics	Basic	√	√	√	√							
KU MT RAD 113	Biology	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 114	General chemistry	Basic	√	√	√	√							
KU MT RAD 115	Computer principles 1	optional	√	√	√	√	√	√					
KU MT RAD 116	Human rights and democracy	optional	√	√		√							
KU MT RAD 117	English language	optional	√	√	√								

Program Skills Outline

			Required program Learning outcomes										
Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics		
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3
KU MT RAD 211	Conventional Radiological Equipment techniques	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 212	Radiographic techniques for upper limbs	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 213	Special radiologica	Basic	√	√	√	√	√	√	√	√			

	l procedures of gastrointest inal tract and bones												
KU MT RAD 214													
KU MT RAD 215	Radiologic al anatomy of upper limbs	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 216	Fundament als of radio- physics	Basic	√	√	√	√							
KU MT RAD 211	Fundament als of radiation protection	Basic	√	√	√	√	√						

Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Program Skills Outline

			Required program Learning outcomes										
Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics		
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3
KU MT RAD 211	Anatomy of skeleton	Basic	√	√	√	√							
KU MT RAD 212	General physics	Basic	√	√	√	√							
KU MT RAD 213	Biology	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 214	General chemistry	Basic	√	√	√	√							
KU MT RAD 215	Computer principles 1	optional	√	√	√	√	√	√					
KU MT RAD 216	Human rights and democracy	optional	√	√		√							
KU MT RAD 211	English language	optional	√	√	√								

Program Skills Outline

			Required program Learning outcomes										
Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics		
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3
KU MT RAD 211	Conventional Radiological Equipment techniques	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 212	Radiographic techniques for upper limbs	Basic	√	√	√	√	√	√	√	√			

KU MT RAD 213	Special radiological procedures of gastrointestinal tract and bones	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 214													
KU MT RAD 215	Radiological anatomy of upper limbs	Basic	√	√	√	√	√	√	√	√			
KU MT RAD 216	Fundamentals of radio-physics	Basic	√	√	√	√							
RAD101 06	Fundamentals of radiation protection	Basic	√	√	√	√	√						

Program Skills Outline

Course Code	Course Name	Basic or optional	Required program Learning outcomes												
			Knowledge				Skills				Ethics				
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3		
RAD101 01 KU MT RAD 3.1	Computed tomog anatomy2	Basic	√	√	√	√	√	√	√	√	√	√			
RAD101 02 KU MT RAD 3.2	Radiographic Techniques 2	Basic	√	√	√	√	√	√	√	√	√	√			
RAD101 03 KU MT RAD 3.3	Radiological medical equipment technologies2	Basic	√	√	√	√	√	√	√	√	√	√			
RAD101 04 KU MT RAD 3.4	Special radiological procedures 2	Basic	√	√	√	√	√	√	√	√	√	√			
RAD101 05 KU MT RAD 3.5	Pathology	Basic	√	√	√	√									
RAD101 06 KU MT RAD 3.6	RADIATION PHYSICS 2	Basic	√	√	√	√	√	√	√	√	√	√			
RAD101 07 KU MT RAD 3.7	RADIATION PROTECTION 2	Basic	√	√	√	√	√	√	√	√	√	√			
	جرائم حزب البعث البياند	optional	√	√	√	√									

Program Skills Outline

			Required program Learning outcomes											
Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	
KU MT RAD 4.1	Principle of Medicine & surgery	Basic	√	√	√	√	√	√	√	√	√			
KU MT RAD 4.2	Computed tomography	Basic	√	√	√	√	√	√	√	√	√			
KU MT RAD 4.3	MRI	Basic	√	√	√	√	√	√	√	√	√			
KU MT RAD4.4	Ultrasound imaging	Basic	√	√	√	√	√	√	√	√	√			
KU MT RAD 4.5	Graduation Research Project	Basic	√	√	√	√								

Course Description

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	Physiology
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	Weekly
6. Semester/Year	
7. Number of hours tuition (total)	120
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	The student learn the principles and basic concepts of physiology and the importance of functional science in medical study ,in addition to learn the mechanism function of cell,tissue,organ,and system to ability to how the body do its function in normal and abnormal distributions of elements in body.

10. Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding

- A1. the student was knowledge what we mean physiological science
- A2.the student knowledge the importance of phsiologyand its relation with various medical studies
- A3.knowledge thought to how explanation the body functions and their mechanisms
- A4.
- A5.
- A6 .

B. Subject-specific skills

- B1. learn to do some of blood examination
- B2. Learn to dohow take the vital signs measurement's
- B3.learn how discus his results and write the scientific report

Teaching and Learning Methods

Use the devices and instruments present in department for theoretical and practical in addition to scientific film and videos

Assessment methods

Through theoretical and practical tests in the hall class and laboratory with write the reports and discussion.

C. Thinking Skills

- C1.continued attention by lecturer to the student make an affinity scientific article
- C2. Scientific linking and connection with life and explain how the body function.
- C3. Understanding the patients suffers and pains and how to help them

Teaching and Learning Methods

Learn and educations are important theoretical lecture and the particle part also in the laboratory.

Assessment methods

Through theoretical and practical tests in the hall class and laboratory with write

the reports and discussion.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1 the student knowledge information's about how the body can do all the functions in general rhythmic normal health

D2. Receiving an experiences in solving the problems facing the future

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2th.+2 pra.		Introduction to physiology, cells, cell components and functions	Lectures/data show	quiz
2	2th.+2 pra.		Blood ,serum,plasma,plasma proteins function	Lectures/data show	quiz
3	2th.+2 pra.		Platelets, Erythrocytes , erythropoietin function and importance	Lectures/data show	quiz
4	2th.+2 pra.		Blood clotting, mechanism of bleed closing	Lectures/data show	quiz
5	2th.+2 pra.		Physiology of circulatory system, Heart anatomy , heart as a pump	Lectures/data show	quiz
6	2th.+2 pra.		Heart sounds and Cardiac output	Lectures/data show	quiz
7	2th.+2 pra.		Blood pressure	Lectures/data show	quiz
8	2th.+2 pra.		Digestive system	Lectures/data show	quiz
9	2th.+2 pra.		Salivary glands & its function	Lectures/data show	quiz
10	2th.+2 pra.		Liver& its function	Lectures/data show	quiz
11	2th.+2 pra.		Physiology of nervous system	Lectures/data show	quiz
12	2th.+2 pra.		Sensory system	Lectures/data show	quiz
13	2th.+2 pra.		Motor system	Lectures/data show	quiz
14	2th.+2 pra.		Anatomic of nervous system	Lectures/data show	quiz
15	2th.+2 pra.		Endocrine control mechanism,pituitary gland	Lectures/data show	quiz
16	2th.+2 pra.		First exam	Lectures/data show	quiz
17	2th.+2 pra.		Adrenal gland, endocrine pancreas	Lectures/data show	quiz
18	2th.+2 pra.		Function of respiratory system	Lectures/data show	quiz

19	2th.+2 pra.		Lung volume, exchange & transport of gases in the body	Lectures/data show	quiz
20	2th.+2 pra.		Physiology of renal system	Lectures/data show	quiz
21	2th.+2 pra.		Kidney structure & function	Lectures/data show	quiz
22	2th.+2 pra.		Role of kidney in regulation blood pressure	Lectures/data show	quiz
23	2th.+2 pra.		Second examination	Lectures/data show	quiz
24	2th.+2 pra.		Urine formation	Lectures/data show	quiz
25	2th.+2 pra.		Female reproductive system	Lectures/data show	quiz
26	2th.+2 pra.		Male reproductive system	Lectures/data show	quiz
27	2th.+2 pra.		Physiology of pregnancy	Lectures/data show	quiz
28	2th.+2 pra.		fetal development[Lectures/data show	quiz
29	2th.+2 pra.		Parturition, lactation	Lectures/data show	quiz
30	2th.+2 pra.		Regulation of body temperature	Lectures/data show	quiz

12. Infrastructure

Required reading:

- CORE TEXTS
- COURSE MATERIALS
- OTHER

Special requirements (include for example workshops, periodicals, IT software, websites)

Text book of human physiology
Guyton

Community-based facilities (include for example, guest Lectures , internship , field studies)	Review of Medical physiology Gonang
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13. Admissions	
Pre-requisites	
Minimum number of students	100
Maximum number of students	240

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	Radiation protection
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	120
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	Students get a valuable information in the subject of theoretical and applied radiation protection in the laboratory to benefit from it in the jurisdiction
	Use of the information, which trains the student in the lab and linked, especially in places that obtain radiation sources, such as hospitals and units in nuclear medicine and other centers to its competence.
	and to ensure that the peaceful applications of radioactive sources, a modern technology sources are for human well-being without being exposed to any risks that may result from

these applications.

This is done by providing information and guidance adequate for officials and employees in various areas of ionizing radiation on the foundations of preventive methods to be followed when dealing with ionizing radiation.

10. Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding

- A1. - First, gain knowledge in the important subject of science
- A2. Its application in the field of work
- A3.- Obtaining the new ideas can be combined with competence

.

B. Subject-specific skills

- B1. The student from the practical side in the laboratory and theoretical terms of the development of foreign language development
- B2. Solving the problems faced by students in the field of employment through fly his mind in thinking to solve the problem
- B3.learn how discuss his results and write the scientific report

Teaching and Learning Methods

The use of current advanced means to connect the theoretical material to the student through recent lectures from international universities and display of documentary films related to the lecture.

Practical part in the laboratory and conduct important experiments for the student himself in obtaining and analyzing the results

Assessment methods

Through theoretical and practical tests in the laboratory

C. Thinking Skills

- C1. Continued attention by the professor to the student make an affinity scientific article
- C2. Continuous follow-up by using modern means of delivering scientific material to the student
- C3.Linking scientific material reality of life is important

Teaching and Learning Methods

Education is important theoretical lecture
And the practical part also in the laboratory

Assessment methods

Theoretical and practical tests

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Students get valuable information in the subject of theoretical chemistry

D2. Students get hands-on experience in the practical side as a prelude to its competence

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2th.+2 pra.		Review <ul style="list-style-type: none"> – Structure of the Atom – Radiation Units – ALARA principles 	Lectures/data show	quiz
2	2th.+2 pra.		Diagnostic X-Ray Room Measurement of Area Radiation Levels Leakage Radiation In-room Scattered Radiation Measurement Protective Barrier/Shielding Assessment Area Radiation Level Checklist	Lectures/data show	quiz
3	2th.+2 pra.		Medical Sources: Occupational and Patient Doses Ionizing radiation interactions with tissue Radiobiological effects at the cellular and whole body level genetic and somatic effects of ionizing radiation <ul style="list-style-type: none"> • deterministic effects • stochastic effects • probability coefficients for tissues at risk • effective dose Threshold and non-threshold effects.	Lectures/data show	quiz

4	2th.+2 pra.		<p>Radiation protection principles</p> <ul style="list-style-type: none"> • Justification • Optimization 	Lectures/data show	quiz
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			<ul style="list-style-type: none"> • Limitation 		
5	2th.+2 pra.		<p>Radiation protection principles applied to medical diagnostic procedures</p> <p>Radiation protection of patients who are or might be pregnant</p> <p>Practical measures for the reduction of patient dose</p> <p>Some dose-saving equipment</p> <p>Some dose-saving techniques</p> <p>High-risk examinations</p>	Lectures/data show	quiz
6	2th.+2 pra.		<p>Risks from radiological examinations</p> <p>Explaining radiation risks to patients</p> <p>Personal protection and personal monitoring - how, why, when, where dose limits</p> <p>typical doses to staff and associated risks</p> <p>protection of staff and members of the public</p> <p>protection of patients</p>	Lectures/data show	quiz
7	2th.+2 pra.		<p>physical factors affecting radio-sensitivity</p> <ol style="list-style-type: none"> 1. Linear energy transfer 2. Relative biologic effectiveness 3. Fractionation and protraction 	Lectures/data show	quiz

8	2th.+2 pra.		<p>Biologic factors affecting Radio sensitivity</p> <ol style="list-style-type: none"> 1. Oxygen effect 2. Age effect 3. Sex effect 4. Recovery 5. Chemical agents 	Lectures/data show	quiz
9	2th.+2 pra.		<p>Early effects of Radiation Acute radiation syndrome</p>	Lectures/data show	quiz

			<ul style="list-style-type: none"> • Hematologic syndrome • Gastrointestinal syndrome • Central nervous system syndrome <p>Local tissue damage</p> <ul style="list-style-type: none"> • Skin • Gonads • Extremities <p>Hematologic depression Cytogenetic damage</p>		
10	2th.+2 pra.		<p>Late effects of radiation</p> <ul style="list-style-type: none"> • Leukemia • Other malignant disease <p>Effect of fetal irradiation</p> <ul style="list-style-type: none"> • Prenatal death • Neonatal death • Congenital malformation • Childhood malignancy <p>Fetuses irradiated in utero</p>	Lectures/data show	quiz

11	2th.+2 pra.		Radiation dose-response relationships Linear dose-response relationships Non- Linear dose-response relationships Constructing a dose-response relationships Linear, quadratic dose-response relationships Radiolysis of water Direct and indirect	Lectures/data show	quiz
12	2th.+2 pra.		Maximum permissible dose whole body non-occupational exposure Partial-body occupational exposure X-ray and pregnancy 1. The	Lectures/data show	quiz

			pregnant technologist 2. Management principles 3. The pregnant patient		
13	2th.+2 pra.		Designing for radiation protection Design of X-ray apparatus Design of protective barrier thickness	Lectures/data show	quiz
14	2th.+2 pra.		Factors affecting barrier thickness Occupational Exposure	Lectures/data show	quiz
15	2th.+2 pra.		Patient dose Patient dose in special examinations Reduction of occupational exposure Reduction of unnecessary patient dose Unnecessary examinations	Lectures/data show	quiz

16	2th.+2 pra.		Review <ul style="list-style-type: none"> – Structure of the Atom – Radiation Units – ALARA principles 	Lectures/data show	quiz
17	2th.+2 pra.		Diagnostic X-Ray Room Measurement of Area Radiation Levels Leakage Radiation In-room Scattered Radiation Measurement Protective Barrier/Shielding Assessment Area Radiation Level Checklist	Lectures/data show	quiz
18	2th.+2 pra.		Medical Sources: Occupational and Patient Doses Ionizing radiation interactions with tissue Radiobiological effects at the cellular and whole body level	Lectures/data show	quiz

			genetic and somatic effects of ionizing radiation <ul style="list-style-type: none"> • deterministic effects • stochastic effects • probability coefficients for tissues at risk • effective dose Threshold and non-threshold effects.		
19	2th.+2 pra.		Radiation protection principles <ul style="list-style-type: none"> • Justification • Optimization • Limitation 	Lectures/data show	quiz

20	2th.+2 pra.		<p>Radiation protection principles applied to medical diagnostic procedures</p> <p>Radiation protection of patients who are or might be pregnant</p> <p>Practical measures for the reduction of patient dose</p> <p>Some dose-saving equipment</p> <p>Some dose-saving techniques</p> <p>High-risk examinations</p>	Lectures/data show	quiz
21	2th.+2 pra.		<p>Risks from radiological examinations</p> <p>Explaining radiation risks to patients</p> <p>Personal protection and personal monitoring - how, why, when, where</p> <p>dose limits</p> <p>typical doses to staff and associated risks</p> <p>protection of staff and members of the public</p> <p>protection of patients</p>	Lectures/data show	quiz
22	2th.+2		physical factors	Lectures/data	quiz
	pra.		<p>affecting radio-sensitivity</p> <ol style="list-style-type: none"> 1. Linear energy transfer 2. Relative biologic effectiveness 3. Fractionation and protraction 	show	
23	2th.+2 pra.		<p>Biologic factors affecting Radio sensitivity</p> <ol style="list-style-type: none"> 1. Oxygen effect 2. Age effect 3. Sex effect 4. Recovery 5. Chemical agents 	Lectures/data show	quiz

24	2th.+2 pra.		<p>Early effects of Radiation Acute radiation syndrome</p> <ul style="list-style-type: none"> • Hematologic syndrome • Gastrointestinal syndrome • Central nervous system syndrome <p>Local tissue damage</p> <ul style="list-style-type: none"> • Skin • Gonads • Extremities <p>Hematologic depression Cytogenetic damage</p>	Lectures/data show	quiz
25	2th.+2 pra.		<p>Late effects of radiation</p> <ul style="list-style-type: none"> • Leukemia • Other malignant disease <p>Effect of fetal irradiation</p> <ul style="list-style-type: none"> • Prenatal death • Neonatal death • Congenital malformation • Childhood malignancy 	Lectures/data show	quiz

			Fetuses irradiated in utero		
26	2th.+2 pra.		<p>Radiation dose-response relationships Linear dose-response relationships Non-Linear dose-response relationships Constructing a dose-response relationships Linear, quadratic dose-response relationships Radiolysis of water Direct and indirect</p>	Lectures/data show	quiz

27	2th.+2 pra.		Maximum permissible dose whole body non-occupational exposure Partial-body occupational exposure X-ray and pregnancy 1. The pregnant technologist 2. Management principles 3. The pregnant patient	Lectures/data show	quiz
28	2th.+2 pra.		Designing for radiation protection Design of X-ray apparatus Design of protective barrier thickness	Lectures/data show	quiz
29	2th.+2 pra.		Factors affecting barrier thickness Occupational Exposure	Lectures/data show	quiz
30	2th.+2 pra.		Patient dose Patient dose in special examinations Reduction of occupational exposure Reduction of unnecessary patient dose Unnecessary examinations	Lectures/data show	quiz

12. Infrastructure					
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER			Stewart C. Bushong , Sc.D., FACR,FACMP Houston, Texas , "Radiologic Science for Technologists" , Fifth edition, 1993. - P.A. Robert, J.Williamas, Europe “Farr’s Physics for medical imaging” second edition.		

<p>Special requirements (include for example workshops, periodicals, IT software, websites)</p>	<p>- RADIATION HEALTH SERIES</p> <p>GUIDANCE NOTES ON RADIATION PROTECTION FOR DIAGNOSTIC RADIOLOGY Radiation Health Unit /Department of Health.</p> <p>- Radiation Protection 136 European guidelines on radiation protection in dental radiology <i>The safe use of radiographs in dental practice.</i> Directorate-General for Energy and Transport Directorate H — Nuclear Safety and Safeguards Unit H.4 — Radiation Protection 2004.</p> <p>-Factors affecting patient dose in diagnostic radiology , J L Poletti /NRL Report.</p>
<p>Community-based facilities (include for example, guest Lectures , internship , field studies)</p>	<p>- Physics of diagnostic imaging for medical students.</p> <p>- James E. Martin Physics for Radiation Protection. A Handbook. James E. Martin Copyright _ 2006 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim ISBN: 3-527-40611-5</p> <p>- Nuclear Science—A Guide to the Nuclear Science, Wall Chart ©2003 Contemporary Physics Education Project (CPEP)</p>

13. Admissions	
Pre-requisites	Continue with the ongoing scientific sources and continuous updating of curricula on an annual basis
Minimum number of students	100
Maximum number of students	240

TEMPLATE FOR COURSE SPECIFICATION

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	Radiological equipment technologies
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	180
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	Introduce students to the constituent parts of the MRI and CT devices and how they work, also process reconstruction images by technical's MRI & CT

10. Learning Outcomes, Teaching ,Learning and Assessment Method

A- Knowledge and Understanding

- A1. To learn the students the all the x-ray machines and their equipments .
- A2. To learn the students the parts of x-ray machines and how it works
- A3- have knowledge of x-ray machine failures and errors

B. Subject-specific skills

- B1. To learn how to deals with all the x-ray machines
- B2. To learn how to use the x-ray machines and to get a diagnostic images.
- B3- dealing with x-ray machine failures and errors

Teaching and Learning Methods

- 1/ Theoretically : through lectures .
- 2/ Practically :Through practical lectures in hospital and in lab .

Assessment methods

- 1/Theoretically Exams: daily ,monthly and annually.
- 2/ practical Exams.: daily ,monthly and annually.

C. Thinking Skills

- C1. to learn the different between all the x-ray machines
- C2. to join the skill of reaching to final diagnosis .
- C3- Understanding the patients suffers and pains and how to help them

Teaching and Learning Methods

- 1/ Theoretically : through lectures .
- 2/ Practically :Through practice lectures in hospitals and in lab. .

Assessment methods

1/Theoretically Exams: daily ,monthly and annually.
2/ practical Exams.: daily ,monthly and annually.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. To use al the knowledges they learn to the field work

D2 . having knowledge in their field

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2th.+4 pra.		Historical introduction The Hardware	Lectures/data show	quiz
2	2th.+4 pra.		Magnet Types Permanent magnets	Lectures/data show	quiz
3	2th.+4 pra.		Resistive Magnets Superconducting magnets	Lectures/data show	quiz
4	2th.+4 pra.		RF Coils Volume RF Coils	Lectures/data show	quiz
5	2th.+4 pra.		Surface coils Quadrature Coils	Lectures/data show	quiz
6	2th.+4 pra.		Phased Array Coils Other Hardware	Lectures/data show	quiz
7	2th.+4 pra.		Acquisition Computing and Display	Lectures/data show	quiz
8	2th.+4 pra.		Gradient Coils Signal Coding	Lectures/data show	quiz
9	2th.+4 pra.		Slice Encoding Gradient Phase Encoding Gradient	Lectures/data show	quiz
10	2th.+4 pra.		Frequency Encoding Gradient Gradient Specifications	Lectures/data show	quiz
11	2th.+4 pra.		Pixel, Voxel, Matrix Slice Thickness	Lectures/data show	quiz
12	2th.+4 pra.		Receiver bandwidth Inter-slice gap	Lectures/data show	quiz
13	2th.+4 pra.		Size of the (image) matrix pixel size,	Lectures/data show	quiz
14	2th.+4 pra.		<ul style="list-style-type: none"> the field of slice thickness. 	Lectures/data show	quiz
15	2th.+4 pra.		Matrices types: <ul style="list-style-type: none"> Coarse matrices: Fine matrices: 	Lectures/data show	quiz
16	2th.+4 pra.		Number of acquisitions Selection of the transmit and receive coil (RF coil)	Lectures/data show	quiz
17	2th.+4 pra.		Field of View Number of Excitations	Lectures/data show	quiz

18	2th.+4 pra.		<p>About CT Scan History of Computed Tomography Operating steps</p>	Lectures/data show	quiz
19	2th.+4 pra.		<p>Different Generations of CT Scanners First-generation CT Second-generation</p>	Lectures/data show	quiz
20	2th.+4 pra.		<p>Third-generation CT Fourth-generation CT Fifth-generation CT (Electron-beam)</p>	Lectures/data show	quiz
21	2th.+4 pra.		<p>CT image Principles of helical CT scanning operation</p>	Lectures/data show	quiz
22	2th.+4 pra.		<p>Data acquisition: Patient positioning:</p>	Lectures/data show	quiz
23	2th.+4 pra.		<p>Basic CT scanner components</p> <ul style="list-style-type: none"> • Scanning unit (gantry) • X-Ray Tube, Collimation, Filtration 	Lectures/data show	quiz
24	2th.+4 pra.		<ul style="list-style-type: none"> • Detector • Control Console 	Lectures/data show	quiz
26	2th.+4 pra.		<p>Data Acquisition System (DAS) CT Patient Table or Couch</p>	Lectures/data show	quiz
27	2th.+4 pra.		<p>Scanner Design X-ray tubes and collimators</p>	Lectures/data show	quiz
28	2th.+4 pra.		<p>Computed tomography radiation detectors First-and second- generation scanners Electron-beam computed tomography</p>	Lectures/data show	quiz
29	2th.+4 pra.		<p>Axial computed tomography scanning Helical (spiral) computed tomography</p>	Lectures/data show	quiz
30	2th.+4 pra.		<p>Multislice computed tomography Computed</p>	Lectures/data show	quiz

tomography fluoroscopy	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	1. RF Farr and PJ Allisy-Roberts “Physics for Medical Imaging”, Saunders, 4 th edition (2001). 2-S.C. Bushong “Radiologic Science For Technologists”, Mosby, Fifth edition (1988).
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	100
Maximum number of students	240

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	general anatomy
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	120
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	1- To study the anatomical positions and its relation with other organs .
	2-To learn the importance of location of the organ in the body.

3-To learn the structures of the organs and blood,lymphatic and nerve supply of these organs .
.

10· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Knowledge and Understanding A1. To learn the students the importance of general anatomy . A2. To learn the students the knowlage skill in the function of the organ . A3.To develop the ability of students for differential diagnosis .
B. Subject-specific skills B1 To write the important anatomical terms . B2. To understand the importance of organ functions in human body. B3.To join the scientific knowlage with another sciences .
Teaching and Learning Methods
1/To learn the students in the practicle works for diagnosis and study the anatomical structures of all organ in the body. 2/Visit the practicle lab . by academic staff.
Assessment methods
1/Daily Exame. 2/Daily practicle Exame. 3/ Saminars . 3/homework
C. Thinking Skills C1. Study all the changesat the cellular levels. C2.To allow the students to determines parts and anatomical structures. C3. Understanding the patients suffers and pains and how to help them
Teaching and Learning Methods
1/To learn the students in the practicle works for diagnosis and study the anatomical structures of all organ in the body.

2/Visit the practice lab . by academic staff.

Assessment methods

1/Daily Exam.

2/Daily practice Exam.

3/ Seminars .

3/homework

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. .To develop the ability of students in determine the anatomical differences .

D2.To study the importance of human anatomy and its relation ship with another sciences.

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2th.+2 pra.		Introduction, definition, surface anatomy & anatomical position, vertical & horizontal lines & planes of abdominal organs, cell & tissues, types.	Lectures/data show	quiz
2	2th.+2 pra.		Skeleton of upper limbs, muscles of upper limbs	Lectures/data show	quiz
3	2th.+2 pra.		The Hand	Lectures/data show	quiz
4	2th.+2 pra.		Skeleton of lower limbs, muscles of lower limbs	Lectures/data show	quiz
5	2th.+2 pra.		The foot	Lectures/data show	quiz
6	2th.+2 pra.		Joints, type of joints, and mechanism of movement	Lectures/data show	quiz
7	2th.+2 pra.		Skeleton of the chest: Ribs & sternum, segments of the spinal cord	Lectures/data show	quiz
8	2th.+2 pra.		Vertebrate, intervertebral disc.	Lectures/data show	quiz
9	2th.+2 pra.		Sacrum and coccyx, pelvis, bony pelvis.	Lectures/data show	quiz
10	2th.+2 pra.		Skull: bone of the skull.	Lectures/data show	quiz
11	2th.+2 pra.		Skull base, skull vault.	Lectures/data show	quiz
12	2th.+2 pra.		Facial bones, mandible and TMJ.	Lectures/data show	quiz
13	2th.+2 pra.		The Orbit	Lectures/data show	quiz
14	2th.+2 pra.		Nasal cavity paranasal sinus.	Lectures/data show	quiz
15	2th.+2 pra.		Meninges, and spinal meninges.	Lectures/data show	quiz
16	2th.+2 pra.		The mid brain, cerebral hemisphere, ventricles of the brain.	Lectures/data show	quiz
17	2th.+2 pra.		The hind brain: Cerebellum, pons and medulla oblongata.	Lectures/data show	quiz

18	2th.+2 pra.		Brain stem & spinal cord.	Lectures/data show	quiz
19	2th.+2 pra.		The cranial nerves	Lectures/data show	quiz
20	2th.+2 pra.		Lumber and sacral plexuses.	Lectures/data show	quiz
21	2th.+2 pra.		Respiratory system: lung, bronchial tree, vascular supply.	Lectures/data show	quiz
22	2th.+2 pra.		Cardiovascular system: heart, heart chambers, major vessels.	Lectures/data show	quiz
23	2th.+2 pra.		Digestive system: pharynx, esophagus, and stomach.	Lectures/data show	quiz
24	2th.+2 pra.		Digestive system: small intestine, and blood supply to abdominal wall.	Lectures/data show	quiz
25	2th.+2 pra.		Digestive system: Large intestine,	Lectures/data show	quiz
26	2th.+2 pra.		Liver, biliary system, pancreas, and spleen.	Lectures/data show	quiz
27	2th.+2 pra.		Urinary system: Kidney, ureter, urinary bladder, urethra & blood supply.	Lectures/data show	quiz
28	2th.+2 pra.		The breast: general anatomy, lobular structures.	Lectures/data show	quiz
29	2th.+2 pra.		Male reproductive system.	Lectures/data show	quiz
30	2th.+2 pra.		Female reproductive system	Lectures/data show	quiz

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	Principle of Human anatomy by Gerard.J.Tortora Mark Nielson .
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	Continue with the ongoing scientific sources and continuous updating of curricula on an annual basis
Minimum number of students	100
Maximum number of students	240

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	Pathology
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	120
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	1- To learn the general pathology and its relation with other organ functions
	2-To study the pathological lesion and the most important pathological lesion .
	3- To understand types of infections due to different microorganisms .
	4- To understand the histological changes of all diseases .

10. Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding

- A1. To learn the students the importance of general pathology .
- A2. To learn the students the knowledge skill in diseases ,causes and diagnostic procedures .
- A3.To develop the ability of students for differential diagnosis .

B. Subject-specific skills

- B1 To learn the pathology ,pathogenesis and diagnosis of the disease .
- B2. To understand the importance of differential diagnosis and compare with other disease .
- B3.To study the effects of the disease on public health

Teaching and Learning Methods

- 1/ Theoratically : through lectures .
- 2/ Practically :Through practice lectures in lab.

Assessment methods

- 1/Theoratically Exame: daily ,monthly and annually.
- 2/ practice Exame.: daily ,monthly and annually.

C. Thinking Skills

- C1 to learn the disease
- C2.to study the clinical .
- C3. to join the skill of reaching to final diagnosis .

Teaching and Learning Methods

- 1/ Theoratically : through lectures .
- 2/ Practically :Through practice lectures in lab.

Assessment methods

1/Theoratically Exame: daily ,monthly and annually.
2/ practicle Exame.: daily ,monthly and annually.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. To learn the pathology ,pathogenesis and diagnosis of the disease .

D2. To understand the importance of differential diagnosis and compare with other disease .

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2th.+2 pra.		Necrosis –cell death	Lectures/data show	quiz
2	2th.+2 pra.		Inflammation	Lectures/data show	quiz
3	2th.+2 pra.		Repair process	Lectures/data show	quiz
4	2th.+2 pra.		Infection	Lectures/data show	quiz
5,6	2th.+2 pra.		Body response to infection	Lectures/data show	quiz
7	2th.+2 pra.		Carcinogenesis	Lectures/data show	quiz
8	2th.+2 pra.		Radiation effect –early	Lectures/data show	quiz
9	2th.+2 pra.		Radiation effect – late	Lectures/data show	quiz
10	2th.+2 pra.		Homodynamic disorders	Lectures/data show	quiz
11	2th.+2 pra.		Blood disorders- WBC, RBC	Lectures/data show	quiz
12	2th.+2 pra.		Blood disorders - coagulation	Lectures/data show	quiz
13	2th.+2 pra.		Diseases of bones & joints	Lectures/data show	quiz
14	2th.+2 pra.		Bone fracture	Lectures/data show	quiz
15	2th.+2 pra.		Pathological diseases of the kidneys	Lectures/data show	quiz
16	2th.+2 pra.		Pathological diseases of the ureters& Urinary bladder	Lectures/data show	quiz
17	2th.+2 pra.		Pathological diseases of the esophagus & stomach	Lectures/data show	quiz
18	2th.+2 pra.		Pathological diseases of the small & large bowel	Lectures/data show	quiz
19	2th.+2 pra.		Pathological diseases of the liver	Lectures/data show	quiz
20	2th.+2 pra.		Pathological diseases of the lung & pleura	Lectures/data show	quiz

21	2th.+2 pra.		Pathological diseases of the upper respiratory tract	Lectures/data show	quiz
22	2th.+2 pra		Pathological diseases of the brain	Lectures/data show	quiz
23	2th.+2 pra		Pathological diseases of the spinal cord	Lectures/data show	quiz
24	2th.+2 pra		Pathological diseases of the gall bladder & biliary tract	Lectures/data show	quiz
25	2th.+2 pra		Pathological diseases of the cardiovascular system	Lectures/data show	quiz
26	2th.+2 pra		Pathological diseases of the endocrine system	Lectures/data show	quiz
27	2th.+2 pra		Pathological diseases of the pituitary gland & adrenals	Lectures/data show	quiz
28	2th.+2 pra		Pathological diseases of the lymphatic system	Lectures/data show	quiz
29	2th.+2 pra		Pathological diseases of the female reproductive system	Lectures/data show	quiz
30	2th.+2 pra		Pathological diseases of the breast	Lectures/data show	quiz

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	Robbins Basic Pathology KumarAbbas 9th Edition
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions

Pre-requisites	Continue with the ongoing scientific sources and continuous updating of curricula on an annual basis
Minimum number of students	100
Maximum number of students	240

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques

3. Course title/code	Principle Of Medical & surgical
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	150 hours
8. Date of production/revision of this specification	2024
9. Aims of the Course	
Give the students all the practical and theoretical information about how to take care of patients and how to collect the important data to evaluate the cases in addition to use the most recent methods in diseases diagnosis	
Learn students all about diseases and their clinical manifestations	
Learn students the physiology of diseases incidence and their etiological factors with routs of transmission and epidemiology	

10. Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding

A1. enable the students to gain the knowledge about the human internal disease , their rout of transmission , clinical manifestations , etiological agents

A2. enable the students to know the diagnosis methods particularly those depend on X-ray , ultrasound or MRI...etc

A3. enable the students to know the important surgical intervention that help in some diseases diagnosis

B. Subject-specific skills

B1. .learn students how to collect the data of case history for different diseases

B2.learn students how to take care of patients physically and psychiatrically particularly those who need for surgical interventions

B3.learn students to get and read the radiological images and different ultrasound and MRI device

Teaching and Learning Methods

By lectures, data show, scientific films for surgical interventions, by visiting some hospitals and learn about diseases and their diagnosis practically

Assessment methods

Through questions and discussions during the lecture, quizzes ,give degrees for scientific activities

C. Thinking Skills

C1. help students to adapt the hospital duties

C2.enable students to understand patients suffers and pains and help them

C3.develop students ability to treat with and bear different diseases cases

Teaching and Learning Methods

By lectures, data show, scientific films for surgical interventions, by visiting some hospitals and learn about diseases and their diagnosis practically

Assessment methods

Through questions and discussions during the lecture, quizzes ,give degrees for scientific activities

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1.help students to develop their ability continuously through training session

D2.help students pass employment meeting

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1,2	3p +2t		Headache :types & imaging of headache	Lectures/data show	quiz
3	3p +2t		Head injury : the role of imaging in head injury	Lectures/data show	quiz
4,5	3p +2t		Cerebrovascular accident(CVA):imaging in CVA	Lectures/data show	quiz
6	3p +2t		Paranasal sinuses: imaging in paranasal sinuses diseases	Lectures/data show	quiz
7	3p +2t		The orbit: imaging in orbital diseases	Lectures/data show	quiz
8	3p +2t		The spine : imaging of spinal lesions	Lectures/data show	quiz
9	3p +2t		The neck : role of imaging in neck masses	Lectures/data show	quiz
10,11	3p +2t		Bone disease: infection, tumor .	Lectures/data show	quiz
12	3p +2t		Bone fracture: types & imaging	Lectures/data show	quiz
13	3p +2t		Respiratory tract diseases: infections, chest trauma, lung masses .	Lectures/data show	quiz
14	3p +2t		Pulmonary embolism, pneumothorax, pleural effusion.	Lectures/data show	quiz
15	3p +2t		Urinary tract obstruction: causes, clinical features & imaging.	Lectures/data show	quiz
16	3p +2t		Urinary tract infection: imaging in UTI	Lectures/data show	quiz
17	3p +2t		Renal & vesical tumors : types, features, imaging.	Lectures/data show	quiz
18	3p +2t		Cystic diseases of kidney , congenital anomalies of urinary tract.	Lectures/data show	quiz
19	3p +2t		GIT: diseases of esophagus.	Lectures/data show	quiz
20	3p +2t		Diseases of the stomach: gastric mass, ulcer	Lectures/data show	quiz
21	3p +2t		Diseases of duodenum : Duodenal ulcer (DU).	Lectures/data show	quiz

22	3p +2t		Diseases of jejunum & ileum.	Lectures/data show	quiz
23	3p +2t		Diseases of colon	Lectures/data show	quiz
24	3p +2t		Liver : hepatitis, jaundice , cholecystitis , portal hypertension.	Lectures/data show	quiz
25	3p +2t		Hepatic masses: role of imaging	Lectures/data show	quiz
26	3p +2t		Female reproductive system: infertility, causes & role of imaging.	Lectures/data show	quiz
27	3p +2t		Tumors of uterus& ovaries	Lectures/data show	quiz
28	3p +2t		Breast masses :benign & malignant	Lectures/data show	quiz
29	3p +2t		Diseases of vascular system	Lectures/data show	quiz
30	3p +2t		Final examination	Lectures/data show	quiz

12. Infrastructure

<p>Required reading:</p> <ul style="list-style-type: none"> · CORE TEXTS · COURSE MATERIALS · OTHER 	<p>Textbook of medical –surgical nursing , Brunner and Suddarth's . 8th ed. 1996 by Suzanne C. Smeltzer : Brenda G. Bane , Lippincott-raven publishers</p> <p>Assesment and management of clinical problems , Lewis, Heitkeper, Dirksen. 6th.ed. 2004 Mosby, Inc.</p> <p>Medical –surgical nursing, critical thinking for collaborate care. Donna D. Ignatavicius; M.Linda Workman. 5th. Ed. 2006 Elsevier Saunders Inc.</p>
<p>Special requirements (include for example workshops, periodicals, IT software, websites)</p>	<p>Anatomy for diagnostic imaging , second edition , Stephanie ryan</p>
<p>Community-based facilities (include for example, guest Lectures , internship , field studies)</p>	<p>http://www.fda.gov/RadiationEmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/ucm200086.htm</p>

13. Admissions

Pre-requisites	
Minimum number of students	100
Maximum number of students	240

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Al-Kitab University
2. University Department	Al-Kitab University / Radiological Techniques
3. Course title/code	Fundamental of nursing
4. Programme(s) to which it contributes	The theoretical study at hall class and practical in chemistry lab.
5. Modes of Attendance offered	weekly
6. Semester/Year	
7. Number of hours tuition (total)	90 hours
8. Date of production/revision of this specification	2024
9. Aims of the Course	
	Give the students all the practical and theoretical information about how to take care of patients and how to collect the important data to evaluate the cases in addition to put a suitable plans to follow the physician information in patients care
	Learn students all about nursing history and the most famous scientist in this field
	teach students the nurse role in society
	Teach students and learn them how to examine patients to get his vital signs in addition to different routs of drugs administration
	Learn students some methods that use in samples collection to send them to the lab for analysis
	Teach students methods of first aid in peace and war time
	Inform students about the importance and role of recent radiological device in diseases diagnosis

10. Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding

B- A1 Knowledge and Understanding

A1. enable the students to know drugs methods of administration and first aid in different emergency cases

A2. enable the students to know the important surgical intervention that help in some diseases diagnosis

A3 . enable the students to know how prepare patient for clinical physical examination and for radiological examine

B. Subject-specific skills

B1.learn students how to collect the data of case history for different diseases

B2.learn students how to take care of patients physically and psychiatrically particularly those who need for surgical interventions

B3.learn students to prepare patient to get radiological images and different ultrasound and MRI devices and put planes to explain the case to patient and his family

Teaching and Learning Methods

By lectures, data show, scientific films for surgical interventions, by visiting some hospitals and learn about patient examination practically

Assessment methods

Through questions and discussions during the lecture, quizzes ,give degrees for scientific activities

C. Thinking Skills

C1.help students to adapt the hospital duties

C2.enable students to understand patients suffers and pains and help them

C3.develop students ability to treat with and bear different diseases cases

Teaching and Learning Methods

By lectures, data show, scientific films for surgical interventions, by visiting some hospitals and learn about patient examination practically

Assessment methods

Through questions and discussions during the lecture, quizzes ,give degrees for

scientific activities

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1 D1.inform students about the most recent diagnostic device
D2.help students to develop their ability continuously through training session

