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: **AL–Noor University College**

Faculty/Institute: **AL–Noor University College**

Scientific Department: **Radiology Techniques Department**

Academic or Professional Program Name: **Bachelor's degree in radiology technologies**

Final Certificate Name: **Bachelor's degree in radiology technologies**

Academic System: annual, quarterly

Description Preparation Date: **2/3/2024**

File Completion Date: **2/3/2024**

Signature:

Head of Department Name:

Assist. Prof. Nawfal Y. Jameel

Date:

Signature:

Scientific Associate Name:

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

Radiology and Sonar are the third eye of the human being, thanks to which he sees what lies behind and inside the human skin. This new eye achieves a correct diagnosis by which the doctor avoids the possibility of confusing between medical conditions whose symptoms are the same or close to each other.

2. Program Mission

Achieving an excellent shortcut in the time of diagnosis, directing surgeons to the real areas that the surgeon is required to deal with, and enabling the patient to obtain medical advice.

3. Program Objectives

Preparing staff that can deal with Radiology and sonar techniques and their devices, and understand the areas of the components of the human body, in order to innovate in vision and diagnosis, and reduce the possibility of error.

4. Program Accreditation

In the steps to obtain

5. Other external influences

AL-Noor University College.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	\	\	\	\
College Requirements	\	\	\	\

Department Requirements	**41**	**174**	**100%**	\
Summer Training	\	\	\	\
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**
1st stage / 1st semester		Anatomy of the skeleton	2	3
		General physics	2	3
		General physiology	2	3
		Biology	2	3
		General Chemistry	2	3
		Computer principles	2	2
		Human rights and democracy	0	2
		English language	0	2

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	**practical**
1st stage / 2nd semester		Anatomy of body systems	2	3
		Atom physics	2	3
		Functional physiology	2	3
		Radiobiology	4	4
		Fundamentals of nursing	4	4
		Computer principles2	2	2
		Medical terminology	0	2
		Arabic Language	0	2

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2nd stage / 1st semester		Conventional Radiological Equipment Techniques	2	5
		Radiographic Techniques for Upper Limbs	2	5
		Special radiological procedures of gastrointestinal tract and bones	2	5
		Radiological anatomy of head and upper limbs	2	4
		Fundamentals of Radio-physics	2	3
		Fundamentals of radiation Protection	2	3

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2nd stage / 2nd semester		Computed tomography Equipment Techniques	2	5
		Radiographic techniques for lower limbs	2	5
		Special radiological procedures of biliary and reproductive system	2	5
		Radiological anatomy of lower limbs	2	4
		Physics of computed tomography	2	3

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
		Radiographic Techniques II	2	4
		Radiological Medical Equipment Technologies II	2	4
3rd stage		Special Radiological Procedures II	2	4
		Pathology	2	2
		Radiation Physics II	1	3
		Radiation Protection II	2	3

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
		Principle of Medicine and Surgery	2	3
		Computed Tomography (CT)	2	5
		Magnetic Resonance Imaging (MRI)	2	5
4th stage		Ultrasound Imaging (US)	2	5
		Biostatistics and computer applications	2	4
		Graduation research project	0	6
		English Language	0	2

8. Expected learning outcomes of the program

Knowledge	
1. Paying attention to specialized theoretical topics and applying them practically 2. Using modern means to deliver theoretical and practical approaches	1. Developing the recipient's ability to write scientific reports and survey and laboratory research 2. Building a distinct level of acquired knowledge 3. Acquiring modern methods of work
Skills	
1. Developing the recipient's ability to avoid common mistakes in writing research and reports 2. Identify pathogenic factors	Identifying or diagnosing health problems through diagnosis
3. Identifying or diagnosing health problems through diagnosis	Developing the recipient's ability to avoid common mistakes in writing research and reports, and identifying disease-causing factors
Ethics	
1. Practical skills that enable the student to establish the relationship between pathogens and diseases 2. The student is able to understand the relationship between the environment and human health	Homework, semester and daily exams
Be patient while doing the work	Homework, semester and daily exams

9. Teaching and Learning Strategies

Live and electronic lectures and giving practical lectures in specialized laboratories that are well equipped with everything necessary

10. Evaluation methods

1. Carrying out homework assignments and contributing to class activities
2. Homework and semester exams

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assist. Prof. Dr. Nawfal Yousif Jameel	Physics Science	Solid state physics	/	/	←	
Prof. Dr. Tariq Salem Abbo	Veterinary medicine and surgery	Pathology	/	/	←	
Prof. Dr. Hana Ihsan Hasan	Physics Science	Nuclear physics	/	/	←	
Assist. Prof. Dr. Mumtaz Muhammad Saleh Hussein Bakr	Physics Science	Solid state physics	/	/	←	
Lect. Dr. Ali Yahya Abdul Razzaq Younis	Chemistry sciences	Physical chemistry	/	/	←	
Lect. Dr. Anmar Ghanem Taqi Ibrahim	Chemistry sciences	Physical chemistry	/	/	←	
Assist. Prof. Hazem Khalil Qasim Muhammad	General medicine and surgery	Diagnostic Radiology	/	/	←	
Lect. Sabah Yousef Hasan Ali	Physics Science	Radiation physics	/	/	←	
Assist. Lect. Tamara Moayed Abdullah Muhammad	General medicine and surgery	Diagnostic Radiology	/	/	←	

Assist. Lect. Sura Muhammad Mohieddin Qasim	Chemistry sciences	Physical chemistry	/	/	←	
Assist. Lect. Maha Khaled Abdel Amir Saleh	Physics Science	Physics Science	/	/	←	
Assist. Lect. Muhammad Adnan Muhammad Saleh	Veterinary medicine and surgery	Veterinary diseases	/	/	←	
Assist. Lect. Heba Nashwan Sami Mustafa	Chemistry sciences	Biochemistry	/	/	←	
Assist. Lect. Maysam Saleh Mutlak Aboush	Chemistry sciences	Industrial chemistry	/	/	←	
Assist. Lect. Zahraa Ibrahim Muhammad Shukr	Biology	Biotechnologies	/	/	←	
Assist. Lect. Safa Muhammad Salem Obaid	Biology	Biotechnologies	/	/	←	
Assist. Lect. Nada Othman Khattab Omar	Chemistry sciences	Chemistry sciences	/	/	←	
Assist. Lect. Shefaa Muayad Atash Hassan	Biology	Zoology	/	/	←	
Assist. Lect. Haneen Mohsen Jiyad Ibrahim	Biology	Biology	/	/	←	
Lect. Dr. Ramadan Mahmoud	computer Sciences	computer Sciences	/	/		←
Assist. Lect. Ahmed Sobhi Ali	Physics	Physics	/	/		←
Dr. Kawkab Nouri Ahmed	General medicine and surgery	Diploma in Diagnostic Radiology	/	/		←
RT. Ayman Bashir Badran	Bachelor's degree in radiology technologies	/	/	/		←
RT. Mustafa Khaled Salem	Bachelor's degree in radiology technologies	/	/	/		←
RT. Ali Khaled Younis	Bachelor's degree in radiology technologies	/	/	/		←

Professional Development
Mentoring new faculty members
Attending scientific conferences, participating in training courses, and participating in teaching methods courses and then the teaching validity course.
Professional development of faculty members
Attending scientific conferences and participating in training courses.

12. Acceptance Criterion

1- Central admission

2- The student's desire

3- Labor market need

13. The most important sources of information about the program

Live and electronic lectures, the information network, university experiments, and various scientific books

14. Program Development Plan

1. Obtaining modern references
2. Conduct internal seminars

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1st stage / 1st semester		Anatomy of the skeleton	Basic	←	←	←	←			←	←	←	←		←
		General physics	Basic	←	←	←		←	←		←	←	←		←
		General physiology	Basic	←			←	←		←	←		←		←
		Biology	Basic	←	←	←	←			←	←		←	←	←
		General Chemistry	Basic	←		←	←	←				←	←	←	←
		Computer principles	Basic	←	←		←	←		←	←	←	←	←	←
		Human rights and democracy	Optional			←	←	←	←		←	←		←	←
		English language	Optional			←	←	←	←	←		←		←	←

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1st stage / 2nd semester		Anatomy of body systems	Basic	←	←	←	←			←	←	←	←		←
		Atom physics	Basic	←	←	←		←	←		←	←	←		←
		Functional physiology	Basic	←			←	←		←	←		←		←
		Radiobiology	Basic	←	←	←	←			←	←		←	←	←
		Fundamentals of nursing	Basic	←		←	←	←				←	←	←	←
		Computer principles2	Basic	←	←		←	←		←	←	←	←	←	←
		Medical terminology	Basic			←	←	←	←		←	←		←	←
		Arabic Language	Optional			←	←	←	←	←		←		←	←

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2nd stage / 1st semester		Conventional Radiological Equipment Techniques	**Basic**	←	←	←	←			←	←	←	←		←
		Radiographic Techniques for Upper Limbs	**Basic**	←	←	←		←	←		←	←	←		←
		Special radiological procedures of gastrointestinal tract and bones	**Basic**	←			←	←		←	←		←		←
		Radiological anatomy of head and upper limbs	**Basic**	←	←	←	←			←	←		←	←	←
		Fundamentals of Radio-physics	**Basic**	←		←	←	←				←	←	←	←
		Fundamentals of radiation **Protection**	**Basic**	←	←		←	←		←	←	←	←	←	←

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2nd stage / 2nd semester		Computed tomography Equipment Techniques	Basic	←	←	←	←			←	←	←	←		←
		Radiographic techniques for lower limbs	Basic	←	←	←		←	←		←	←	←		←
		Special radiological procedures of biliary and reproductive system	Basic	←			←	←		←	←		←		←
		Radiological anatomy of lower limbs	Basic	←	←	←	←			←	←		←	←	←
		Physics of computed tomography	Basic	←		←	←	←				←	←	←	←

Program Skills Outline															
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Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
3rd stage		Radiographic Techniques II	Basic	←	←	←	←			←	←	←	←		←
		Radiological Medical Equipment Technologies II	Basic	←	←	←		←	←		←	←	←		←
		Special Radiological Procedures II	Basic	←			←	←		←	←		←		←
		Pathology	Basic	←	←	←	←		←	←	←		←	←	←
		Radiation Physics II	Basic	←		←	←	←	←			←	←	←	←
		Radiation Protection II	Basic	←	←		←	←	←	←	←	←	←	←	←
		Radiographic Techniques II	Basic	←	←		←	←	←	←	←	←	←	←	←

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				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
4th stage		Principle of Medicine and Surgery	Basic	←	←	←	←			←	←	←	←		←
		Computed Tomography (CT)	Basic	←	←	←		←	←		←	←	←		←
		Magnetic Resonance Imaging (MRI)	Basic	←	←	←	←	←	←	←	←		←		←
		Ultrasound Imaging (US)	Basic	←	←	←	←		←	←	←		←	←	←
		Biostatistics and computer applications	Basic	←		←	←	←	←			←	←	←	←
		Graduation research project	Basic	←	←		←	←		←	←	←	←	←	←
		English Language	Optional	←		←	←	←	←			←	←	←	←