



Ministry of Higher Education and
Scientific Research

Al-Shatrah University

College of Applied Medical Science

Module Description Form



Introduction:

The educational program is a coordinated and organized package of courses that include procedures and experiences organized in the form of study vocabulary, the main purpose of which is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs such as the external examiner program.

The academic program description provides a brief summary of the main features of the program and its courses, indicating the skills that are being worked on to acquire for students based on the objectives of the academic program. The importance of this description is evident in that it represents the cornerstone in obtaining program accreditation, and the teaching staff participates in writing it under the supervision of the scientific committees in the scientific departments .

This guide, in its second version, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the developments and changes in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, semester) in addition to adopting the description of the academic program circulated under the letter of the Department of Studies ت م 3/2906 dated 5/3/2023

regarding programs that adopt the Bologna process as a basis for their work. In this regard, we cannot but emphasize the importance of writing a description of academic programs and curricula to ensure the smooth running 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 from the student to achieve, demonstrating whether he has made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture of the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable program.

Program Mission: It briefly explains the goals and activities necessary to achieve them, and also identifies the program's development paths and directions.

Program Objectives: These 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 (semester, annual, Bologna track) whether they are required (ministry, university, college and scientific department) with the number of academic units.

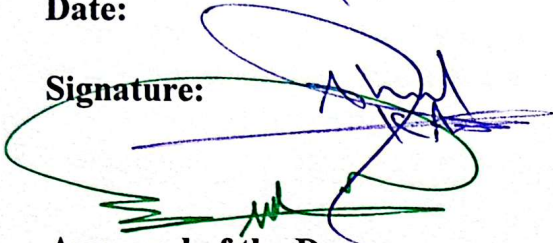
File Verified by

Quality Assurance and University Performance Division:

Name of Director of Quality Assurance and University Performance Division:

Date: Ahmed Abdulhadi Jabbar

Signature:



Approval of the Dean:

Dr. Mohammed H. Mohammed

1-THE VISION:

The college is meant that to be distinguished in its graduated staff, scientific research and community service.

Department of Medical Physics aims to build, qualify and develop an integrated scientific department based on distinguished scientific experiments that is in harmony with the job market, meets the needs of scientific institutions, and follows scientific methods that keep pace with and compete with similar departments in local and international universities

2-THE MESSAGE:

A new and qualitative addition to the field of medical physics by adopting the latest methodological and studied scientific means and methods, distinguished qualitative research, modern medical laboratories and experienced academic staff to qualify specialists in medical physics with a high degree of scientific and technical skill who contribute to meeting the needs of the job market and advancing this field

3-THE AIMS:

- 1- Providing everything the student needs, including solid theoretical curricula and practical applications, so that the department s outputs fit the needs of the job market and keep pace with scientific and technological developments in the field of laboratory techniques and modern medical devices**
- 2- Graduating and qualifying specialized personnel in the field of medical physics who have the ability to provide supportive medical services in the field of diagnosis and treatment with high quality (medical imaging using New horizons and concepts in scientific research and the ability to work in field health and provide them with administrative and scientific skills in this field .**
- 3- Raising the graduate s performance efficiency and achieving comprehensive quality in the applications of medical physics in all aspects of life, to reach the required level that contributes to advancing**

development and achieving comprehensive renaissance in all areas of work.

- 4- Encouraging scientific research by preparing advanced and innovative educational programs that qualify specialized scientific and professional personnel to contribute to conducting distinguished scientific and practical research.

4- Program Accreditation

None

5-Other external influences:

Several aspects, where many seminars and meetings were held to discuss academic and applied content with researchers specialized in the field of medical physics. Discussions were also held with colleges and universities that contain similar specializations through conferences, discussion groups, and joint work that allows communication between the teaching staff and students for the purpose of coming up with a common vision and setting plans for developing curricula.

6- Program Structure:

Program Structure	Number of Courses	Unit	Percentage *	Notes *
Institution Requirements	5	12		Basic course
College Requirements	1	4		Basic course
Department Requirements	42	224		Basic course
Summer Training		None		
Other				

* Notes may include whether the course is core or optional ..

7-Program Description				
Hours		Name Code	Course Credit	Year/Level
Practical	Theoretical			
2	4	Mechanics	SHPH11001	2023-2024 Semester one
2	4	Electricity	SHPH11002	
	5	Mathmetics	SHPH11003	
2	1	Introduction to computer	COAS11004	
	2	Arabic Language	USH11005	
	2	Democrasy and Human Rights	USH11006	
2	2	Mechanics II	SHPH12007	
2	4	Properties of materials	SHPH12008	
2	4	Magnetism	SHPH12009	
2	5	Mathemetics (integration) II	SHPH12010	
2	2	Chemistry	COAS12011	
	2	English Language	USH12012	
Hours		Name Code	Course Credit	Year/Level
Practical	Theoretical			
2	4	Atomic physics I	SHPH23013	2025-2024 Semester three
	2	Biostatistcs	SHPH23014	
2	4	Electromagnetic Waves	SHPH23015	
2	4	Analog and Digetal Electronics	SHPH23016	
2	4	General Biology	SHPH23017	
	4	Baath Crimes in Iraq	USH23018	
2	4	Atomic physics II	SHPH24019	2025-2024 Semester Four
2	4	Medical Physics (1)	SHPH24020	
2	4	Physiology	SHPH24021	
	4	Bioelectronics	SHPH24022	
2	2	Heat and Thrmodinamics	SHPH24023	
	4	Mateirales scinces	SHPH24024	
Hours		Name Code	Course Credit	Year/Level
Practical	Theoretical			

2	2	Anatomy	SHPH35025	2026-2025 Semester Five
2	2	Laser in Medical (1)	SHPH35026	
	2	Physics of Medical Instrumentation (1)	SHPH35027	
2	2	Optics 1	SHPH35028	
	2	Quantum Mechanics	SHPH35029	
2	2	Medical Physics (2)	SHPH35030	
2	2	Optics 2	SHPH36031	2026-2025 Semester six
2	2	Laser in Medical (2)	SHPH36032	
2	2	Physics of Medical Instrumentation (2)	SHPH36033	
	2	Medical Photografic	SHPH36034	
	2	Biochemistry	SHPH36035	
	2	Sound Physics	SHPH36036	
Hours		Name Code	Course Credit	Year/Level
Practical	Theoretical			
2	2	Nanotechnology	SHPH47037	2027-2026 Semester seven
	2	Radiation Biology	SHPH47038	
2	2	Nuclear Physics	SHPH47039	
	2	Professional Ethics	SHPH47040	
2	2	Solid State Physics	SHPH47041	
	2	Research Project	SHPH47042	
2	2	Medical Terminology	SHPH48043	2027-2026 Semester eight
	2	Physics of	SHPH48044	
	2	Biomaterials	SHPH48045	
2	2	Analytical and medical Image processing	SHPH48046	
	2	Electromagnetic Theory	SHPH48047	
	2	Research Project	SHPH48048	

8- Expected learning outcomes of the program

Knowledge

A-A Cognitive objectives.

A1- Graduating cadres with a high level of understanding and knowledge capable of building, analyzing and developing educational systems, with follow-up of these cadres after

	<p>graduation.</p> <p>A2- The ability to conduct educational analysis and scientific thinking by applying laws in science and adhering to guidelines and instructions for any activity in the organizational and administrative framework in implementing a project or confronting an educational problem, solving it, evaluating it, and submitting a proposal or plan or rephrasing it, translating it or interpreting it.</p> <p>A3- The student should be able to speak and write in an effective scientific style in Arabic and English.</p> <p>A4- Motivating students to participate effectively in the renaissance and progress of society by holding seminars, conferences, continuing education and providing academic consultations in legal fields.</p> <p>A5- The student should be able to produce scientific and applied research in the field of science for the purpose of solving problems related to his field of study to serve society.</p> <p>A6- Effective participation in the renaissance and progress of society through holding seminars, conferences, continuing education, and providing academic consultations in legal fields.</p>
Skills	
	<p>B - Program specific skill objectives:</p> <p>B1 - Students' analysis of the educational situation</p> <p>B2 - Problem analysis and provision of appropriate legal alternatives.</p> <p>B3 - Scientific investigation and evaluation</p> <p>B4 - Organizing the educational situation in a way that helps achieve the goals in the future</p>
Values	
	C- Emotional and value-based objectives:

A1- Using brainstorming to generate creative ideas for some gifted students.

A2- Developing Internet search skills to expand cognitive horizons.

A3- To encourage the development of engineering thinking for students in memorization and guessing and motivating them towards critical thinking and thinking at a stage before remembering.

A4- Presenting problems and asking them to think about all possible solutions or possible developments

9-Teaching and learning strategies:

-There are many teaching and learning methods used in the College of Applied Medical Sciences, and the most important of these methods are: - (theoretical and practical lectures, discussion and dialogue, field visits to relevant governmental and private institutions, discussion groups on specific topics, theoretical and practical student research, office activities, practical application of experiments and tests to reach a high level of learning.

10-Evaluation methods

1- Seminars.

2-Scientific discussion, oral dialogue, theoretical and practical midterm and final exams.

3- Writing and submitting reports and taking notes on the technical expertise gained during field visits

4-Quick tests (quizzes{

5-Midterm and annual exams

11-Faculty						
Faculty members						
Number of Faculty Members		Requirements/ Special Skills (if any)		Specialization		Academic Rank
External Lecturer	An employee the owner			Miner Specialization	Majer Specialization	
	None					Professor
	2					Assistant Professor
	5					Lecturer
	2					Assistant Lecturer
	1					No title

Professional Development
Mentoring new faculty
Through seminars, symposia and conference attendance
Professional Development of Faculty
Through conferences, symposia, symposia and faculty attendance Postgraduate Discussions

12-Admission criteria:
The applicant must have a preparatory school certificate in the scientific or literary branch, a certificate of first place in administrative institutes, and pass the competition through the electronic application system in the Iraqi Ministry of Higher Education and Scientific Research.

13- The most important sources of information about the program

1. A curriculum officially qualified by the Ministry of Higher Education for scientific studies and its leadership guides.
2. Decisions and recommendations of the scientific committees in the department and the university.
3. A course in developmental teaching methods.

14-Program development plan

Updating study plans and scientific curricula by keeping pace with global developments and using modern sources to keep pace with the labor market, in addition to updating, developing and diversifying learning and teaching methods.

Required learning outcomes of the program														
	values	skills				knowledge						Core or Elective	Course Name	Course Co
C2	C1	B4	B3	B2	B1	6A	5A	A4	A3	A2	A1			
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Mechanics	SHPH110
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Electricity	SHPH110
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Mathmetics	SHPH110
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Core	Introduction to computer	COAS110
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Core	Arabic Language	USH110
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Core	Democracy and Human Rights	USH110
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Mechanics II	SHPH120
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Properties of materials	SHPH120
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Magnetism	SHPH120
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Mathemetics (integration) II	SHPH120
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Chemistry	COAS120
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Core	English Language	USH120
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Atomic physics I	SHPH230
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Biostatistcs	SHPH230
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Electromagnetic Waves	SHPH230
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	Analog and Digetal Electronics	SHPH230
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	Core	General Biology	SHPH230
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Core	Baath Crimes in Iraq	USH230

● Please tick the boxes corresponding to the individual learning outcomes of the programme being assessed.