Republic of Iraq
Ministry of Higher Education
& Scientific Research

Al-Farahidi University College of Science Department of Medical physics Science



جمهوريــة العــراق وزارة التعليم العالي والبحث العلمى

جامعــة الفراهيــدي كليــة العلوم قسم علوم الفيزياء الطبية

Academic Program

Medical Physics Science

أ.د. احمد منعم حسون معادن عميد كلية العلوم

Dr. Ahmed Moneim Hassoun

Assistant Dean for Scientific Affairs

Prof. Ammar Daham Ayada Head of Medical physics Department

رنيس قسم الفيزياء الطبية

Dr. Jamal Fadhil Tawfiq

Director of the Quality Assurance Division

Prof. Khulood Waheeb Abbood Dean of College of Science

> أ.د.خلود وهيب هميد كلية العلوم

Medical Physics Department

Institution: Al-Farahidi University

College: College of Sciences

Department / Academic Program Name: Department of Medical Physics

Final Degree Name: Bachelor of Medical Physics

Academic System: Semester

Accreditation Program Used (ECTS): The European Credit Transfer and Accumulation System

Description Preparation Date / Academic Year 2023 - 2024

Establishing a specialized scientific department according to advanced local and international standards, qualified with modern curricula based on local and international experiences that meet the needs of the job market in both the public and private sectors.

Department Mission:

Providing the community with specialized personnel equipped with scientific expertise and advanced skills in the fields of examination and diagnosis, and providing the appropriate educational and academic environment to equip workers in this field with the necessary knowledge to deal with modern technologies and tools used in the medical aspect.

Objectives:

Adopting the Bologna process as an educational system aimed at:

- Preparing distinguished graduates in the specialty capable of improving medical performance and dealing with modern technologies in the healthcare sector.
- Supplying the job market with specialists in providing high-quality medical support services in the fields of diagnosis and treatment.
- Qualifying personnel capable of employing their scientific and practical skills in the development of field medical research and efficiently operating medical examination devices by providing them with the latest technical experiences.

Learning Outcomes (Graduate Specifications):

1. Understanding the basics and advanced concepts in the field of medical physics.

2. Familiarize the graduate on how to apply the concepts of medical physics in the

practical applied fields.

3. Provide the graduates with the knowledge of the main concepts related to pressure,

fluids, viscosity, and temperature and their relationship to the operation of medical

treatment devices.

4. Learning about the nature of materials that have applications in medical phenomena.

5. Equipping graduates with the ability to connect and integrate what they learn to use it

in their future work in hospitals, government health centers, and private institutions

that use advanced modern technologies in medical treatment, including radiation,

laser, diagnostic imaging, CT scans, and MRI.

Employment Opportunities for Graduates:

Graduates of the department work in:

1. Ministry of Interior

2. Ministry of Defense

3. Ministry of Health

4. Ministry of Higher Education and Scientific Research

5. Private Health Sector

Assessment Methods:

Daily, periodic, and final examinations.

Laboratory reports.

Practical projects.

Program Structure:

To obtain a bachelor's degree in medical physics, the student needs to successfully fulfill the curriculum requirements according to the Bologna process.

Study programme



Republic of Iraq - Ministry of Higher Education and Scientific Research Al-Farahidi University

Bachelor's degree in Medical physics (First cycle) Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25hr Program Curriculum (2023 - 2024)

جمهورية العراق - وزارة التعليم العالي والبحث العلمي

جامعة الفراهيدي جامعة الفراهيدي ركالوريوس في علوم الفيزياء الطبية (الدورة الأولى) أربع سنوات (ثمانية فصول دراسية) - ٢٠ وحدة اوربية - ٢٠ ساعة المنهاج الدراسي للعام ٢٠٠٤-٢٠٤٠



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		-	KUB1103	Democracy and Human Rights	ميمقراطية وحقوق الإنسان	Arabio								9.9	17	60	2.00	8	
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		- 2	KUS12011	English Language	لعة الكارية	English	2						3	28	28	80	2.00	0.	
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		4	MPH11002	Mechanics	الميكانيك	English	2		2		1.		3	78	97	178	7.00	0	
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		2	MPH21013	Differential Equations	Autoriai undinima	English	2				1			40	62	100	8.00	0	KU5110
		- 3	MPH21014	Optios	بصريات	English	2		2	17	1		- 8	78	72	160	0.00	0	37500.60
		4	MPH21018	Atomic Physics	فيرياء ذرية	English	- 1		2		1			78	72	150	6.00	- C	
			MPH21018	Electromagnetics	كهرومغناطيسية	English	2				1		3	48	62	100	4.00	0	
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		-3-	MPH22020	Laser Physics	فبرياء اللبرر	English			2	1				78	72	150	6.00		
		4	MPH22021	Medical imaging	تصوير طبي	English	- 2		2		- 1			78	72	150	6.00	C	
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		- 1	MPH31025	Numerical Analysis	تحليل عددي	English	2						3	9.9	42	78	3.00	13	A 61203.
		2	MPH31028	Medical Physics Devices1	فبزياء الاجهزة الطبية 1	English	2		0.00			.1	3	48	52	100	4.00	E	
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		4	MPH31028	Analogue Electronics	الكاترونيات تعاللية	English	2		2		1		3	78	72	150	6.00	0	
			MPH31029	Anatomy	تشريح	English	2			- 1		- 1	3	0.3	62	125	5.00	G	MPH120
		6	MPH31030	Nuclear Physics	فرزياء نووية	English	2		2		1		3	78	72	150	2.00	6	
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		- 1	MPH32031	Wave Physics	فبرباء موجية	English	2		de management de la constantina	-	THE CHILD		3	48	77	126	5.00	В	Code
		2	MPH32032	Biological Sensor	متحسسات بابولوجية	English	2						3	48	52	100	4.00	6	
			MPH32033	Quantum Mechanics	ميكانيك الكم	English	- 2				- 1			63	62	126	5.00	6	
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		.0	MPH32036	Physiology	Andrea	English	2		2				3	-78	72	150	0.00	C	
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	Six	No:	Code	Module Name in English	اسم المادة الدراسية	Language				- (hr/w)			Exam	SSWL		SWL.	ECTS	Module	Module
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		-1		Medical Physics 3	فيرياه طبية 3	English	2		2		1		3	78	97	170	7.00	a	
		2	MPH41038	Medical Physics Devices 2	فيزياء اجهزة طبية 2	English	2		2		1		3	78	97	175	7.00	С	
	Semester	3	MPH41039	Laser in Medicine	الليرز في الطب	English	2				1		3	63	62	125	5.00	C	
		4	MPH41040	Radiation Protections	الوقاية من الاشعاع	English	2				1	1		63	62	126	5.00	c	
014		5	MPH41041	Graduation Project	مشروع نخرج	English			2			1	3	48	52	100	4.00	c	
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		1	MPH42043	Medical Physics 4	فبرياء طبية 4	English	2		2	,	1		3	78	72	160	6.00	c	Module
		2		dical Image Analysis and Processi	تحليل ومعالجة صور طبية	English	2		2		-		3	78	72	160	8.00	0	Code
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iiv	Semester	- 4	MFH42046	Neurophysics	فبرياء الاعصاب	English	2		-		1.	,		48	62	100	4.00	C	
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Department Council

No	Name	Degree	Functional class
1	Ammar Daham Ayada	prof	Head of Department
2	Hind Tahseen Ibrahim	prof	Session Coordinator
3	Hussain Hamad Abd	prof	Member
4	Faten Monjed Hussien Al-feel	lecturer	Member
5	Auday Khudaier Azawy	lecturer	Member