

Course Description Form

1. Course Name:					
Medical physics					
2. Course Code:					
MS205					
3. Semester / Year:					
First 2024- 2025					
4. Description Preparation Date:					
30/ 3/2024					
5. Available Attendance Forms:					
Theory					
6. Number of Credit Hours (Total) / Number of Units (Total)					
60hrs			4 units		
7. Course administrator's name (mention all, if more than one name)					
Name: Dr. Mays Waleed Shakir Email: mays.w.shakir.phys503@st.tu.edu.iq					
8. Course Objectives					
Course Objectives		Introducing the student to the meaning of medical physics, how physics is involved in medicine, and how to use physical concepts in medicine to diagnose and treat diseases, such as the use of Etc.) and its harm to human health, plants, animals, and soil. What are the harms resulting from pollution to everything that surrounds humans and the most important possible ways to reduce pollution.			
9. Teaching and Learning Strategies					
Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Definition & examples	The principle of laser operation + the	course	Examinations: daily &

			characteristics of laser light + its uses in medicine. Lectures, discussion, dialogue, and tests.		monthly
2	4	Definition & examples	Definition of X-rays - their characteristics, method of generation, lectures, discussion, dialogue and tests.	course	Examinations: daily & monthly
3	4	Definition & examples	Types of environmental pollution\lectures, discussion, dialogue and tests.	course	Examinations: daily & monthly
4	4	Definition & examples	The harms of pollution, its effects, and solutions to environmental pollution.	course	Examinations: daily & monthly
5	4	Definition & examples	Various questions, lectures, discussion, dialogue and tests.	course	Examinations: daily & monthly
6	4	Definition & examples	Risks of X-rays + risks of using ultrasound waves + risks of MRI.	course	Examinations: daily & monthly
7	4	Definition & examples	Treatment using radioactive elements: (radium + cesium + gold + iodine).	course	Examinations: daily & monthly
8	4	Definition & examples	Radiation protection: sources of ionizing radiation + units used to measure radiation and its effects	course	Examinations: daily & monthly

9	4	Definition & examples	Magnetic resonance imaging device + helical scanner, lectures, discussion, dialogue, and tests.	course	Examinations: daily & monthly
10	4	Definition & examples	Ultrasound, lectures, discussion, dialogue and tests.	course	Examinations: daily & monthly
11	4	Definition & examples	Biological effects of ionizing radiation.	course	Examinations: daily & monthly
12	4	Definition & examples	Ionizing radiation measuring devices, lectures, discussion, dialogue and tests General definitions and examples.	course	Examinations: daily & monthly
13	4	Definition & examples	Treatment using ultraviolet radiation	course	Examinations: daily & monthly
14	4	Definition & examples	Types of radiological imaging devices, lectures, discussion, dialogue and tests	course	Examinations: daily & monthly