

Program Anesthesia Technician

Course Specification of Physics and measurements 2

Course No. (08 03 841)

2024

II. Course Description:

This course aim to Physics and Measurements 2 is a continuation of introductory physics, building upon concepts learned in previous courses. This course delves deeper into classical mechanics, thermodynamics, electromagnetism, and modern physics, with a strong emphasis on experimental techniques and the importance of accurate measurements in scientific inquiry.

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CLOs)
1	Topics Typically Covered: Advanced Mechanics	. Dynamics of systems of particles - Rotational motion and angular momentum - Equilibrium and stability - Oscillations and waves	6	12	a1,a2.a3. d2
2	Thermodynamics	- Laws of thermodynamics - Heat transfer and thermal properties - Ideal gases and real gas behavior	1	2	a1, b1.c2.c3.c1
		• Mad exam	1	2	
6	Electricity and Magnetism:	Electricity and Magnetism: - Electrostatics and electric fields - Circuits and Ohm's law - Magnetic fields and electromagnetic induction	6	12	a1, b1.c2.c3.c1 d2
7	Optics:	1. Optics: Properties of light, reflection, and refraction	3	6	a2, c2, d2

		○ Lenses and optical instruments ○ Wave optics and interference patterns			
8	Modern Physics:	○ Introduction to quantum mechanics ○ Atomic and nuclear physics Relativity and its implications	3	6	a2, c2, d2.C3
	Final term exam	Final term exam	1	2	a2, b2, c2, d2
Number of Weeks /and Units Per Semester			16	32	

B. Case Studies and Practical Aspect:

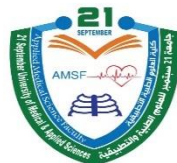
No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
Number of Weeks /and Units Per Semester				

C. Tutorial Aspect:

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
Number of Weeks /and Units Per Semester				

V. Teaching Strategies of the Course:

- Interactive lecture



- Seminars and student presentations
- Brain storming
- Role-play and simulation
- Small group discussion
- Learning tasks and activities
- Problems solving
- Case study analysis

VI. Assessment Methods of the Course:

- Assignments
- Quizzes
- Mid-term exam
- Final term exam