

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Biophysics
Course number	DENT1103
Faculty	
Department	
Course type	Major Needs
Course level	1
Credit hours (theoretical)	1
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

- 1 - Course description: Topics covered will include biomechanics, sound and hearing, pressure and motion of fluids, heat and temperature, electricity and magnetism in the body, optics and the eye, biological effects of light, use of ionizing radiation in diagnosis and therapy, radiation safety, medical instrumentation. Two lectures with demonstrations per week, several visits to the hospital to see the medical equipment will be scheduled during the semester.
- 2 - Develop basic understanding of medical physics concepts, • Develop problem-solving and critical-thinking skills, • Learn to integrate and apply various physics concepts to a single problem. • Develop scientific communication skills.

Course Contents

- 1 - • Forces acting on the body. • Physics of the skeleton • Energy, work and power of the body • Pressure • Sound in medicine • Physics of the lung and breathing • Physics of the cardiovascular system • Physics of diagnostic x-rays • Radiation protection in medicine • Physics of nuclear medicine • Electricity within the body • Physics of eyes and vision • Physics of the ear and hearing

Teaching and Learning Methods

- 1 - 1 - Lectures 2 - Power point 3 - Discussion 4 - Assignments