

## (2) Medical Physics

Technical college	30 Weeks	No. of week hours		
Department: Medical Instrumentation Engineering		Th.	Pr.	Unit
First Year		2	2	6
		Subject: Medical Physics.		

**أهداف المادة :** دراسة الظواهر الفيزيائية الخاصة بالجسم البشري و كيفية التعامل مع الأجهزة الخاصة بها .

Week	Syllabus
1 <sup>st</sup>	Forces on and in the body.
2 <sup>nd</sup>	Physics of the skeleton.
3 <sup>rd</sup>	Heat & cold in medicine.
4 <sup>th</sup>	Energy, work and power of the body .
5 <sup>th</sup>	Pressure in body organs.
6 <sup>th</sup>	Physics of the lungs and breathing.
7 <sup>th</sup> , 8 <sup>th</sup>	Physics of cardiovascular system.
9 <sup>th</sup> , 10 <sup>th</sup>	Physics of urinary system.
11 <sup>th</sup> , 12 <sup>th</sup>	Instrumentation related of the respiratory, cardiovascular and urinary systems.
13 <sup>th</sup> , 14 <sup>th</sup>	Electricity within the body.
15 <sup>th</sup> , 16 <sup>th</sup>	Applications of electricity and magnetism in medicine.
17 <sup>th</sup> , 18 <sup>th</sup>	Sound in medicine and physics of hearing.
19 <sup>th</sup> , 20 <sup>th</sup>	Light in medicine and physics of vision.
21 <sup>st</sup> , 22 <sup>nd</sup>	Diagnostic X-rays.
23 <sup>rd</sup> , 24 <sup>th</sup>	Physics of nuclear medicine (radioisotopes in medicine) .
25 <sup>th</sup> , 26 <sup>th</sup> , 27 <sup>th</sup>	Physics of radiation therapy.
28 <sup>th</sup> , 29 <sup>th</sup> , 30 <sup>th</sup>	Radiation protection.