



Technical college\Mosul	30 Weeks	No. of week hours		
Department: Medical Instrumentation Engineering		Th.	App.	Unit
		2	3	7
Second Year	Subject: Measurements & medical Transducers.			

**أهداف المادة:-** معرفة المكونات الأساسية لأجهزة القياس ودراسة الأخطاء الحاصلة في القراءة وكيفية تقليلها، وكذلك التعرف على طرق استعمال الأجهزة في القياسات وكيفية اختيار الجهاز المناسب للاختيار والتعرف على معايرة أجهزة القياس.

<b>Week</b>	<b>Syllabus</b>
1 <sup>st</sup>	Measurements and error.
2 <sup>nd</sup>	System of units of measurements.
3 <sup>rd</sup>	Standard of measurement .
4 <sup>th</sup> , 5 <sup>th</sup>	Measurement device and system .
6 <sup>th</sup> , 7 <sup>th</sup>	D.C indicating instrument .
8 <sup>th</sup> , 9 <sup>th</sup>	A.C indicating instrument .
10 <sup>th</sup>	Power transducers .
11 <sup>th</sup> , 12 <sup>th</sup>	Measurements of R, L and C .
13 <sup>th</sup> , 14 <sup>th</sup>	Descriptive lectures .
15 <sup>th</sup> , 16 <sup>th</sup>	Review of fundamentals of electrical measurements .
17 <sup>th</sup> , 18 <sup>th</sup>	General theory of PMMC instrument .
19 <sup>th</sup> , 20 <sup>th</sup>	Various instrument .
21 <sup>st</sup>	Circuits for D.C measurements .
22 <sup>nd</sup>	Fundamental of A.C measurements .
23 <sup>rd</sup> , 24 <sup>th</sup>	Electronic measuring instruments , oscilloscope .
25 <sup>th</sup>	Frequency measurements.
26 <sup>th</sup>	Magnetic instrument .
27 <sup>th</sup>	Concepts of cle .
28 <sup>th</sup> , 29 <sup>th</sup>	Types of medical transducers .
30 <sup>th</sup>	Analogue and digital data acquisition systems .