

## مكونات ودوائر الكترونية

<b>Technical college</b>	<b>30 Weeks</b>	<b>No . of week hours</b>		
<b>Department: Medical Instrumentation Engineering</b>		<b>Th.</b>	<b>Pr.</b>	<b>Unit</b>
		<b>2</b>	<b>3</b>	<b>7</b>
<b>Second Year</b>	<b>Subject: Electronic Devices &amp; circuits.</b>			

**أهداف المادة :** تعريف الطالب على الدوائر الالكترونية و طرق تصميمها و استخدامها في تطبيقات عملية عديدة .

Week	Syllabus
1 <sup>st</sup>	Electronic values (review) .
2 <sup>nd</sup> , 3 <sup>rd</sup>	Semiconductors materials and PN junctions .
4 <sup>th</sup> , 5 <sup>th</sup>	Diode applications .
6 <sup>th</sup> , 7 <sup>th</sup>	Special diodes .
8 <sup>th</sup> , 9 <sup>th</sup>	Bipolar junctions transistor (characteristics and biasing) .
10 <sup>th</sup> , 11 <sup>th</sup>	Field effect transistor (characteristics and biasing) .
12 <sup>th</sup>	Small single amplifier .
13 <sup>th</sup> , 14 <sup>th</sup>	Other semiconductor devices (UJT , SCR , Diac , Triac , ..) .
15 <sup>th</sup> , 16 <sup>th</sup>	Optoelectronic devices .
17 <sup>th</sup> , 18 <sup>th</sup>	Frequency response .
19 <sup>th</sup> , 20 <sup>th</sup>	Negative feedback .
21 <sup>st</sup>	Differential amplifier .
22 <sup>nd</sup>	Operation amplifier .
23 <sup>rd</sup> , 24 <sup>th</sup>	Basic OP – Amp application .
25 <sup>th</sup> , 26 <sup>th</sup>	Sinusoidal oscillator .
27 <sup>th</sup> , 28 <sup>th</sup>	Non – sinusoidal oscillator .
29 <sup>th</sup> , 30 <sup>th</sup>	Power amplifier .