

<b>Semester 9001</b>	<b>Main Topics</b>	<b>Theoretical (60 hrs)</b>	<b>Practical (90 hrs)</b>
<b>General</b>	<b>Cell Structure</b>	3	----
	<b>Classification of medically important bacteria</b>	2	----
	<b>Normal flora</b>	2	----
	<b>Physiology</b>	2	----
	<b>Sterilization</b>	3	6
	<b>Bacterial identification:</b> <ul style="list-style-type: none"> <li>▪ Traditional method: smear ,culture, BR ....etc</li> <li>▪ ABI</li> <li>▪ Vitec</li> <li>▪ BC</li> <li>▪ BACTEC</li> <li>▪ anaerobic culture</li> </ul>	2 1 1 1.5 1.5 2	15   15 15
	<b>Chemotherapy :</b> <ul style="list-style-type: none"> <li>▪ Antibiotic classification.</li> <li>▪ Action and resistance.</li> <li>▪ Different AB sensitivity tests (disc diffusion - MIC )</li> <li>▪ E test – automated tests.</li> <li>▪ Detection of MRSA and MBL</li> <li>▪ Antibiotic policy</li> </ul>	2 2 3 2 2 2	15
	<b>Genetics:</b> <ul style="list-style-type: none"> <li>▪ Mutation &amp; Gene transfer</li> <li>▪ Sequencing</li> <li>▪ Gene therapy</li> <li>▪ Plasmid</li> <li>▪ Transposone</li> <li>▪ Genetic engeneering</li> </ul>	2 4 2 2 2 3	8 (nucleic acid extraction ) 6 ( plasmid isolation)
	<b>Different typing methods</b>	3	-----
	<b>Molecular :</b> <ul style="list-style-type: none"> <li>▪ PCR</li> <li>▪ Real time PCR</li> <li>▪ Hybridization</li> <li>▪ Pulsed field gel electrophoresis</li> </ul>	2 2 2 2	10 (PCR)