

**Dr. D.Y . PATIL COLLEGE OF NURSING, PIMPRI, PUNE-18**

**Placement: 1<sup>st</sup> year 2<sup>nd</sup> semester P.B.BSc Nursing**

**Subject: Microbiology**

**Faculty: External**

**Total: 60 Hrs**

<b>UNIT</b>	<b>TOPIC</b>	<b>NO: OF LECTURES</b>	<b>LECTURE SR.NO</b>
<b>UNIT 1: INTRODUCTIO N</b>	<ul style="list-style-type: none"> <li>• General Microbiology: History, (Fracostoriues of Verona to the Latest Nobel Laureates short note on Pasteur and Koch) and Introduction</li> <li>• Microscope (Types – dissecting to Electron measuring scale up to nanometer )</li> </ul>	1	1
		2	3
<b>UNIT II: GENERAL MICROBIOLOG Y</b>	<ul style="list-style-type: none"> <li>• Morphology and Physiology (Size, Shape, structure., spore, flagella, capsule)</li> <li>• Staining (demonstration) Gram's + Z N's + Motility</li> </ul>	2	5
		1	6
<b>UNIT III: BACTERIAL GROWTH REQUIREMENT</b>	<ul style="list-style-type: none"> <li>• Growth requirement of Bacteria + Bacteria growth curve</li> <li>• Cultural media different</li> <li>• Collection processing of sample and bacteria</li> </ul>	2	8
		1	9
		2	11

<b>UNIT IV: STERILIZATION &amp; DISINFECTION</b>	<ul style="list-style-type: none"> <li>• Sterilization + Disinfections</li> </ul>	2	13
	<ul style="list-style-type: none"> <li>• Sterilization demo of instruments, Different disinfectants dilute</li> </ul>	1	14
	<ul style="list-style-type: none"> <li>• Hospital infection control Biosafety + Fumigation and role of nurse</li> </ul>		
	<ul style="list-style-type: none"> <li>• Bacterial genetics (emphasis to drug resistance) Host parasite relationship</li> </ul>	1	15
		1	16
<b>UNIT V: SYSTEMIC BACTERIOLOG Y</b>	<ul style="list-style-type: none"> <li>• Morpho, growth requirements, diseases caused vaccine epideo)</li> </ul>	1	17
	<ul style="list-style-type: none"> <li>• Pyogenic cocci causing diseases Staphylococci</li> </ul>	1	18
	<ul style="list-style-type: none"> <li>• Streprococci and Pneumococci and Neisseria</li> </ul>		
	<ul style="list-style-type: none"> <li>• Salmonella + Shigella</li> </ul>		
	<ul style="list-style-type: none"> <li>• E coli diarrhea + Cholera + Pseudomonas</li> </ul>	2	20
	<ul style="list-style-type: none"> <li>• C. diptheria + Chlamydia</li> </ul>		
	<ul style="list-style-type: none"> <li>• Anaerobes intro. + C. welchii</li> </ul>	2	22
	<ul style="list-style-type: none"> <li>• C. tetani + nonsporing anaerobes mention diseases</li> </ul>		
	<ul style="list-style-type: none"> <li>• Tuberculosis</li> <li>• Leprosy + Aty</li> <li>• Spirocheate + Leptospira</li> </ul>	2	24

	<ul style="list-style-type: none"> <li>• Chlamydia</li> <li>• Demo different morphology of bacteria G + C, G + B, GNC, GNB</li> <li>• Demo of organism Spore, Capsule, fungi, AFB</li> </ul>	1	25
		1	26
<b>UNIT VI: SYSTEMIC MYCOLOGY</b>	• Fungi intro., Dermatophytes	1	27
	• Mycetophytes	1	28
	• Mycetoma, Rhino, Crypto	1	29
	• Candida and Lab. Diagnosis of fungal infections	2	31
<b>UNIT VII: IMMUNOLOGY</b>	• Immunity	1	32
	• Antigen	1	33
	• Antibody	1	34
	• Ag X Abs reaction serological	1	35
	• Immune Response	1	36
	• Hypersensitivity	1	36
<b>UNIT VIII: SYSTEMIC PARASITOLOG Y</b>	• Intro classification and some terms	1	37
	• Amoeba + Giardia	1	38
	• Trichomonas + Leishmania	1	39
	• Malaria + Toxoplasma	1	40
	• Cestodes (Taenia sodium and saginata E. granuloses)	1	41
	• Intestinal Nematodes	1	42
	• Tissue Nematodes	1	43
	• Vectors	1	44
	• Diff. Parasites and vectors stool preparation demo	1	44
		2	46

<b>UNIT IX: SYSTEMATIC VIROLOGY</b>	<ul style="list-style-type: none"> <li>• Gen. Prop. Cultivation classification</li> <li>• Herpes virus</li> <li>• Picorna virus</li> <li>• Measles, Mumps, Chicken pox</li> <li>• Ortho and Arbo (Dengue)</li> <li>• Rhabdo virus</li> <li>• Hepatitis virus</li> <li>• HIV and AIDS</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>47</p> <p>48</p> <p>49</p> <p>50</p> <p>51</p> <p>52</p> <p>53</p> <p>54</p>
<b>UNIT X: CLINICAL MICROBIOLOG Y</b>	<ul style="list-style-type: none"> <li>• PUO, UTI, STD, Wound infection</li> <li>• Micro – organism transmitted through food</li> </ul> <p>Food poisoning, food born infection</p>	<p>3</p> <p>3</p>	<p>57</p> <p>60</p>