

**SARDAR PATEL UNIVERSITY**  
**Programme: BSC (MICROBIOLOGY)**  
**Semester: IV**  
**Syllabus with effect from: November 2012**

<b>Paper Code:</b> US04EMIC01	<b>Total Credit: 2</b>
<b>Title Of Paper:</b> Fundamental Microbiology	

Unit	Description in detail	Weighting (%)
<b>1</b>	<b>Place of microorganisms in living world</b> Haeckels's classification Whittaker's five kingdom concept Criteria used in classifying Bacteria, Introduction to Bergey's Manual	
<b>2</b>	Normal flora of the human body & gnotobiotic life, Infection and its types, Occurrence of Diseases, Transmission of Disease, Factors Affecting Occurrence of Disease, introduction to Virulence, WHO recommend vaccination programme.	
<b>3</b>	<b>Control of Microorganisms by Physical agents:</b> Fundamental control of Microorganisms, Conditions influencing antimicrobial action; Mode of action of Antimicrobial Agent; Physical Agents- High temperature (Moist heat, Dry heat, Pasteurization, Incineration), Low temperature, radiation, Filtration,	
<b>4</b>	<b>Control of Microorganisms by Chemical agents:</b> Characteristics of an ideal antimicrobial chemical agent. Chemical Agents - Phenol and Phenolic compounds, Alcohols, Heavy Metals, Quaternary Ammonium compounds, Aldehydes, Gaseous agents, Antibiotics (Penicillin and streptomycin).	

**Basic Text & Reference Books:**

- Microbiology - Pelczar, Chan and Krieg, 5<sup>th</sup> Ed.
- Elementary Microbiology - H. A. Modi

