

# DR. D.Y. PATIL VIDYAPEETH (DEEMED TO BE UNIVERSITY)

(Reaccredited by NAAC with CCPA of 3.62 on a four point scale at 'A' grade)
An ISO 9001 :2008 Certified University
DR. D. Y. PATIL COLLEGE OF NURSING

### LESSON PLAN BASIC B.Sc. NUSING SEMESTER-I

Subject code:2

Subject : Microbiology Faculty : Mrs.D.Priva

UNIT	TOPIC	No of lectures	Lecture Serial No
I	Importance and relevance to nursing	1	1
Introduction:	Historical perspective	1	2
	<ul> <li>Concepts and terminology</li> </ul>	2	4
	Principles of microbiology	1	5
II	Structure and classification of Microbes.	2	7
General	<ul> <li>Morphological types</li> </ul>	1	8
characteristics of	<ul> <li>Size and form of bacteria</li> </ul>		
Microbes	• Motility		
	Colonization		
	<ul> <li>Growth and nutrition of microbes</li> </ul>	2	10
	* Temperature		
	* Moisture		
	* Blood and body fluids		
	<ul> <li>Laboratory methods for Identification of</li> </ul>	2	12
	Micro-organisms		
	Staining techniques, Gram staining, Acid fast	3	15
	staining, Hanging drop Preparation		
	Culture; various medias		
III	•Infection: Sources, portals of entry and exit,	2	17
Infection control	transmission.		
	• Asepsis		
	Disinfection; Types and methods	2	19
	Sterilization; Types and Methods	2	21
	•Chemotherapy and antibiotics		
	•Standard safety measures	1	22
	Biomedical waste management	1	23
	•Role of Nurse	1	24
	Hospital acquired infection	1	25
	Hospital infection control programme		
	* Protocols, collection of samples, preparation		
	of report and status of rate of infection in the		
	unit / hospital, nurse's accountability, continuing		
	education etc.		
IV	Micro-organisms	4	29
Pathogenic organism	o Cocci – gram positive and gram negative		

	<ul> <li>bacilli-gram positive gram negative</li> <li>Spirochaete</li> <li>Mycoplasms</li> <li>Rickettsiae</li> <li>Chlamydie</li> <li>Viruses</li> <li>Fungi-Superficial and Deep mycoses</li> <li>Parasites</li> <li>Rodents &amp; vectors Characteristics, Source, portal of entry, transmission of infection Identification of disease producing microorganisms Collection, handling and transportation of various specimens.</li> </ul>	2 2 2 2	31 33 35 37
V Immunity	<ul> <li>Immunity – Types, classification</li> <li>Antigen and antibody reaction</li> <li>Hypersensitivity – skin test</li> <li>Serological tests</li> <li>Immuno prophylaxis</li> <li>Vaccines &amp; sera – Types &amp; Classification, storage and handling, cold chain</li> <li>Immunization for various diseases</li> <li>Immunization Schedule</li> </ul>	2 2 1 1 2	39 41 42 43 45

**Laboratory Hours: - 15 hours** 

## **Evaluation Scheme**

INTERNAL ASSESSMENT 25 marks

Periodical : 25 Pre-final : 75

Total : 100

15 marks (Send to University)

Assignment - 10 marks

## **EXTERNAL ASSESSMENT**

University examination : 75 marks

#### **Bibliography:**

- 1. Alice Corraine Smith, "Microbilogy and pathology" 9<sup>th</sup> ed., Mosby Co.
- 2. Bernard D. Davis, Rentap Dalbecco Herman N. Eisen & Harold S. Ginsberg, "Microbiology", 3<sup>rd</sup> Ed, A Harper International edition.
- 3. Hug L. L Moffet, (1981) "Clinical microbiology", 2<sup>nd</sup> ed., J. B. Lippincott Co.
- 4. Macbie and Mecartney, (1980), "Medical microbiology" 13<sup>th</sup> ed., printed.
- 5. P. Ananthanarayan and C. K. Jayarm Panikar, "Textbook of microbiology", 8<sup>th</sup> ed., Orient Longman Company Ltd.
- 6. Chakravarti Text book of Microbiology.
- 7. T. Panjratan Text Book of Microbiology in nursing, New central Bool agency Culcutta 2002.