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| COURSE | FACULTY OF PHYSIOTHERAPY |
| PROGRAM | BACHELOR OF PHYSIOTHERAPY |
| SEMESTER | 2 |
| COURSE TITLE | MICROBIOLOGY |
| COURSE CODE | 17PT0202 |
| COURSE CREDITS | 4 |

Course Outcomes: After completion of this course, student will be able to:

- 1 At the end of the course, the student will be able to have sound knowledge of the agents responsible for causing human infections, pertaining to CNS, CVS, Musculo-skeletal and Respiratory system.

Pre-requisite of course: have sound knowledge of the agents responsible for causing human infections, pertaining to CNS, CVS, Musculo-skeletal and Respiratory system.

Teaching and Examination Scheme

| Theory Hours | Tutorial Hours | Practical Hours | ESE | IA | CSE | Viva | Term Work |
|---------------------|-----------------------|------------------------|------------|-----------|------------|-------------|------------------|
| 80 | 0 | 0 | 25 | 15 | 10 | 0 | 0 |

| Contents : Unit | Topics | Contact Hours |
|------------------------|---|----------------------|
| 1 | General Bacteriology Introduction, historical background, Basics of morphology and physiology of bacteria, Staining of bacteria, Sterilization and disinfection, Cultivation and culture media | 10 |
| 2 | Systemic Bacteriology Gram positive cocci: Staphylococci, Streptococci and Pneumococci, Gram negative cocci: Gonococci and Meningococci, Gram negative bacilli: Typhoid, Cholera, Dysentery, Gram positive bacilli: Aerobic: Diphtheria, Tuberculosis, Leprosy, Syphilis - Anaerobic: Tetanus, Gas gangrene, Botulism | 15 |
| 3 | General Virology Poliomyelitis, Rabies, Introduction to Blood born Viral infection, Demonstration of tests: Diagnosis of AIDS, hepatitis B & C, Corona, Herpes | 10 |
| 4 | Immunology Immunity, Antigen and Antibodies, Agglutination, Precipitation, Basic of hypersensitivity reactions | 10 |
| 5 | Parasitology Introduction to important parasitic infections, Malaria, Amoebiasis, Round worm and hook worm | 10 |
| 6 | Mycology Introduction to important fungal infections, Candidiasis, Ring worm, Scabies | 5 |

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| 7 | Applied Microbiology Infection of bones / joints, Infection of burns case, Serological test – interpretation of ASO, RA, VDRL, CRP, Widal, ELISA (HIV, HB sag), Demonstration gross / microscopic appearance of various parasites | 10 |
| 8 | Aseptic universal precautions & practices Biomedical waste and universal precautions | 5 |
| 9 | PRACTICALS: (Demonstration only) Staining, Microscopy, Sterilization, Media, Stool sample, Serology tests | 5 |
| Total Hours | | |

References:

Textbooks: -

1. Microbiology for Physiotherapy students – B.S. Nagoba

Reference books: -

1. Textbook of Microbiology – R. Ananthnarayan & CK Jayram Panikar
2. Textbook of Microbiology – Chakraborty
3. Textbook of Microbiology – Dr Arora
4. Essentials of Medical Microbiology – Rajesh Bhatia, Rattan Lal Ichhpujani
5. Essentials of Medical Microbiology – Apurba Sankar Sastry and Sandhya Bhat