

MB4PGP4 -LABORATORY COURSE IV

Number of Hours / Week: 4

Credits: 4

- Study of the morphology, staining characters, cultural characters and identification of medically important bacteria *Staphylococci*, *Streptococci*, *Neisseria*, *Pneumococcus*, *E.coli*, *Klebsiella*, *Salmonella*, *Shigella*, *Proteus*, *Pseudomonas*, *Vibrio*, *Bacillus* and *Mycobacterium sp.*
- Isolation and identification of bacteria from mixed culture.
- Study of common laboratory contaminants.
- Culture methods for isolation and identification of fungi- KOH mount preparation, Lactophenol cotton blue staining, Slide culture technique etc.
- Gram staining and Germ tube test of *Candida albicans*
- Cultivation of viruses in embryonated eggs different routes – harvesting
- Examination of peripheral blood for haemoflagellates and malarial parasites
- Study of normal microbial flora of human beings
- Techniques for collection of clinical specimens for microbiological analysis- Macroscopic, microscopic examination of clinical samples. Culture methods- identification and antibiotic sensitivity test of isolates

References

12. Cheesbrough, M. (2006). District Laboratory Practice in Tropical Countries. Cambridge University Press. 2nd ed.
13. Mackie, T.J., McCartney, J.E., and Collee, J.G. (1989). Mackie & McCartney practical medical microbiology. Churchill Livingstone, 13th ed

14. Gradwohl, R.B.H., Sonnenwirth, A.C., and Jarett, L. (1980). Gradwohl's clinical laboratory methods and diagnosis. Mosby, London. 8th ed
15. Cappuccino, J.G., and Sherman, N. (2008). Microbiology: A Laboratory Manual (Pearson/Benjamin Cummings. 9th ed