

**MIC 1241**

## **INFECTIOUS DISEASES**

**3Hrs/Wk - 2Cr**

This course aims to provide students with the understanding of positive and negative host microbe interaction. The students will also learn about the mechanism of pathogenesis for the establishment of infectious diseases, immune effector mechanism and control strategies for healthy life.

### **Specific Learning Outcomes (SLO):**

Upon the completion of the course, the student will be able to

- Understand the stages of infectious diseases
- Learn about the significance of normal microbiota and its host interaction
- Understand the mechanism of infectious disease pathogenesis
- Explore the sources and impact of nosocomial infection
- Develop the control strategies for better health

**UNIT-I Epidemiology:** Infection – phases and stages, diseases and their types- list of infectious diseases, pathogenicity – morbidity and incubation, virulence – lethality and opportunistic pathogens.

**UNIT-II Normal microbiota:** Overview- distribution of normal microbiota in the body- type of interaction – positive and negative – commensalism, mutualism, parasitism – establishment and importance of normal microbiota.

**UNIT-III Mechanism of pathogenesis:** Reservoir-transmission- portal entry- adherence-invasion-colonization and pathogenesis of infectious diseases of human.

**UNIT-IV Nosocomial infections:** Definition-sources- mode of transmission-diagnosis-treatment-preventive measures-responsibilities of health care personals.

**UNIT-V Control strategies:** Good health practices - health awareness- prophylaxis - immunization – active and passive immunization - role of antibiotics.

### **TEXTBOOK**

Ananthanarayanan and Jayaram Panikkar (1992) Text book of Medical Microbiology, 4<sup>th</sup> edn, Orient Longman Ltd. Madras.

### **REFERENCES**

1. Cruickshank (1975) Medical Microbiology, Vol II ELBS, Churchill Livingstone Publication.
2. Patrick R. Murray, (2005) Medical Microbiology 4<sup>th</sup> edn, Library of Congress Publications, California.
3. Jawetz, E., Melnic, J. L. Adlberg, E. A. (2004) Medical Microbiology 19<sup>th</sup> edn, Lange Medical Publications, USA