

SEMESTER I & II
LSM3232 MICROBIOLOGY

Prerequisite: LSM2101 or LSM2102 or LSM2103

Workload: 26 lecture hours + 21 laboratory hours + 2 tutorials + 1 CA

Principles of microbiology, with emphasis on the properties, functions and classification of the major classes of microorganisms, especially bacteria, fungi and viruses. Understanding microbial activities and their influence on microbial diseases, industrial applications, ecology, food and water quality.

| S/N | Topics | Lecture hours | |
|-----|--|---------------|--------------|
| | | Semester I | Semester II |
| 1 | Scope of microbiology: the diversity of the microbial world and microbial taxonomy | 2 [STS] | 2 [STS] |
| 2 | Microbial structure and function: microbial physiology, microbial nutrition and microbial growth | 8 [STS] | 8 [STS] |
| 3 | Food microbiology | 8 [JC / LYK] | 8 [JC / LYK] |
| 4 | Environmental microbiology | 4 [STS] | 4 [STS] |
| 5 | Medical microbiology: Microbial diseases and their control | 4 [KT] | 4 [KT] |
| | Practicals (7 x 3 hours) | | |
| 1 | Basic Microscopy & Staining | | |
| 2 | Physiological effects on microbial growth | | |
| 3 | Microbial physiology | | |
| 4 | Medical microbiology | | |
| 5 | Food microbiology | | |
| 6 | Environmental microbiology | | |
| 7 | Water microbiology | | |

Total Lectures: 26 hours

Total Practicals: 21 hours

Tutorials: 2 hours

CA: 1 hour

Total hours: 50

TEXTBOOKS (Reference books):

1. Microbiology 7th Ed. (2008) Prescott, Harley & Klein, McGraw Hill.
2. Microbiology: A Human Perspective. (2012) EW Nester et al, McGraw Hill.
3. Biology of Microorganisms 12th Ed. (2009) Brock & Madigan, Prentice-Hall.
4. Microbiology: Principles and Explorations 8th Ed (2012) Black, John Wiley.
5. Topley and Wilson's Microbiology and Microbial Infections 10th Ed. (2005) Collier et al., 5 vols.

MODE OF ASSESSMENT:

40% Continuous Assessment

60% Final Examination

MODULE COORDINATOR:

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LECTURERS:

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