

## SEMESTER I & II

### LSM3232 MICROBIOLOGY

**Prerequisite:** LSM2211 or LSM2232 or LSM2233

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

**Course description:**

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

**MODE OF ASSESSMENT:**

40% Continuous Assessment

60% Final Examination

**MODULE COORDINATOR:**

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