

SEMESTER I & II
LSM3223 – IMMUNOLOGY

Prerequisite: LSM2103

Workload: 24 lecture hours + 24 laboratory hours + 2 tutorial hours

This course provides the central concepts of immunology and the foundation for understanding how immunity functions. The subjects of innate immunity and haematopoiesis introduce the origin and role of different cell types in immunity. The mechanics of how the body protects itself from disease are explored in relation to T and B cell biology, antibody-antigen interaction, major histocompatibility complex and antigen presentation. Other topics include hypersensitivity, immunodeficiencies, immune tolerance, autoimmunity, resistance and immunization to infectious diseases.

S/N	Topics	Lecture hours Semester I	Lecture hours Semester II
1.	Introduction to immunology - Overview of the immune system - Innate and adaptive immunity - Cells of the immune system - Structure of the immune system	4	4
2.	Humoral immunity and effector mechanisms - Antibody-Antigen I - Antibody-Antigen II - Complement - T cell receptors and B cell receptors	4	4
3.	Antigen recognition and immune interactions - Antigen processing and presentation I - Antigen processing and presentation II - B cell development - T cell development	4	4
4.	Cellular immunology and immune regulation - T cell activation - Cell-mediated immunity	2	2
5.	Immunity in disease - Hypersensitivity I - Hypersensitivity II, III, IV - Immunological tolerance - Autoimmunity - Immunodeficiency	5	5
6.	Infection immunity - Infection I - Infection II	2	2
7.	Research applications - Vaccines and immunization - Immunotherapy - Continuous Assessment (CA)	3	3

TEXTBOOKS

1. Roitt's Essential Immunology (Blackwell) Roitt and Delves.
2. Immunobiology: The Immune System in Health and Disease (Garland) Janeway.
3. Immunology (Mosby) Roitt *et al.*
4. Cellular and Molecular Immunology (Saunders) Abbas *et al.*

MODE OF ASSESSMENT:

30% - Continuous Assessment (MCQ)
70% - Final Written Examination

MODULE CO-ORDINATORS:

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LECTURERS:

Semester I

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