

**SEMESTER I**  
**LSM4211 TOXICOLOGY**

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**Prerequisite: LSM3211**

**Workload: 26 lecture hours + 16 PBL hours + 4 Revision hours**

**Course description:**

Toxicology is the study of the adverse effects of chemicals on humans. This introductory course will cover the basics of toxicological science, from molecular mechanisms to quantitative risk assessment of hazardous compounds and for extrapolation from animal data to humans. The important concepts of toxicology will be illustrated with examples including drugs, natural toxins, industrial chemicals, and environmental toxicants.

S/N	Topics	Lecture hours
L1	Introduction	2 DRH
L2	Mechanistic Toxicology	2 DRH
L3	Toxicokinetics	2 SM
L4	Organ directed toxicity: Neurotoxicity and renal toxicity	2 SM
L5	Organ directed toxicity: Hepatotoxicity and cardiovascular toxicity	2 RRS
L6	Risk assessments	2 tshd
L7	Organ directed toxicity: Pulmonary toxicity and immunotoxicity	2 DRH
L8	Organ directed toxicity: Toxicity of sensory and reproductive systems	2 DRH
L9	Toxic agents: Plant and animal toxins	2 DRH
L10	Non-organ directed toxicity	2 DRH
L11	Environmental toxicology	2 SWJ
L12	Toxic agents: Solvents/vapors and radiation	2 DRH
L13	Toxic agents: Pesticides and metals	2 DRH
L14	Applications of toxicology	2 LHL
Total Lectures: 28 h Revisions: 4 h Problem-based Learning: 16 h		
Total hours:		48 h

**MODE OF ASSESSMENT:** CA/PBL 40 %; Final Exam 60 %

**MODULE CO-ORDINATOR:**

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