

**SEMESTER I & II**  
**LSM3211 - FUNDAMENTAL PHARMACOLOGY**

**Prerequisite: LSM2101 or LSM2103**

**Workload: 26 lecture hours + 6 tutorial hours + 18 laboratory hours**

This module introduces basic principles of pharmacology. These encompass fundamental pharmacokinetics, drug-receptor interaction, molecular pharmacology of receptors and their regulation, signal transduction, ion channel pharmacology and regulation, autonomic pharmacology, autacoid pharmacology and inflammation pharmacology.

S/N	Topics	Lecture hours	
		Semester I	Semester II
1	<b>Introduction to Pharmacology</b>	1 – FW	1 – FW
2	<b>Fundamental Pharmacokinetics</b>	2 – LHS	2 – LHS
3	<b>Mechanism of Drug Action:</b> Principles of drug actions Structure-Activity Relationship G Protein-Coupled Receptor Intracellular Receptor Transmembrane Receptor Enzyme Cytokine receptor Ligand-gated Ion Channels Voltage-gated Ion Channels Receptor Regulation Receptor Classification Calcium regulation Cellular excitation and conduction	5 – FW 3 – PW 2 – BJS	5 – FW 3 – PW 2 – BJS
4	<b>Autonomic Pharmacology:</b> Adrenergic & Cholinergic	4 – BJS	4 – BJS
5	<b>Inflammation Pharmacology:</b> Autacoids Eicosanoids Vasoactive Peptides Corticosteroids Immunosuppressants Anti-asthma Drugs Non-steroidal Anti-inflammatory Drugs Anti-Rheumatoid Arthritis Drugs Anti-Coagulation Drugs	4 – PW 5 – FW	4 – PW 5 – BJS
		<b>Total Lectures : 26h</b>	
		<b>Tutorials: 6h</b>	
		<b>Practicals: 3X6= 18h</b>	
<b>Total hours:</b>		50h	

**TEXTBOOK: Pharmacology** by HP Rang, MM Dale, JM Ritter & RJ Flower, Churchill Livingstone, 6<sup>th</sup> Edition, 2007

**MODE OF ASSESSMENT:** MCQ/Long Essay (30% CA, 70% Final Examination)

**MODULE CO-ORDINATOR:**

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