



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410 209

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Restructuring syllabus of M.Sc. Medical Pharmacology Program as per Choice Based Credit System (CBCS)

Program Outcomes

Name of the Degree: M.Sc. Medical Pharmacology

AIMS OF THE PROGRAM

Postgraduate qualification in Medical Pharmacology can secure placements in Academics and Pharma industries. In academics, one can pursue for higher education like Ph.D. in Pharmacology. After completion of the course, one can work as Teaching faculty in a Medical College or as a researcher associate in Research and Development (RND).

Duration of Study: The duration of the study for M.Sc. Medical Pharmacology will be of six semesters spread over three years.

ACADEMIC SYLLABUS FOR SEMESTER-I

Course Outcomes

Name of the Programme	M. Sc. Medical Pharmacology
Course Code	_____
Name of the Course	Medical Pharmacology I Semester

Course Objective (Teaching Objectives)	<ul style="list-style-type: none"> This course is designed to enable students to understand basic concepts of pharmacology. To acquire basic knowledge and skill of pharmacodynamics, principles of therapeutics and pharmacokinetics of commonly used drug and essential medicines
Course Outcomes (Learning Objectives)	<p>At the end of course student should be able to</p> <ol style="list-style-type: none"> Understand basic concepts of pharmacology Describe pharmacodynamics and pharmacokinetics of essential and commonly used drugs List indication, contraindication, interaction and adverse reaction of commonly used drugs Indicate the use of appropriate drug in particular disease with consideration of efficacy, safety and cost of the therapy Explain and understand the pharmacological basis for prescribing drug in special medical situations

<u>Unit no.</u>	Theory Topics	Hours allotted No. of-hrs
1.	General Pharmacology :Introduction to Pharmacology, Sources of Drugs, Routes of Drug Administration, Pharmacokinetics ,	10

	Pharmacodynamics, Factors Modifying Drug action and Adverse drug reactions.	
2.	Autonomic Nervous System: General Consideration, Adrenergic agonist, Adrenergic antagonists, Cholinergic agonists, Anticholinesterases drugs, Anticholinergic drugs, Skeletal muscle relaxants.	11
3.	Cardiovascular System: Antihypertensive Agents, Diuretics and Anti-diuretics, Antianginal Agents, Coagulants & Anticoagulants, Thrombolytics & Antiplatelet agents, Drugs for congestive cardiac failure, Management of shock, Hypolipidemic agents and Haematinics.	16
4.	Gastrointestinal System: Emetics and Antiemetics, Drugs for peptic ulcer, Anti-diarrheal agents and Laxative & purgatives.	5
5.	Respiratory System: Treatment of Cough, Drugs for Bronchial asthma.	3
	Total	45

ACADEMIC SYLLABUS FOR SEMESTER-II

Name of the Programme	M. Sc. Medical Pharmacology
Course Code	_____
Name of the Course	Pharmacology II Semester

Course Objective (Teaching Objectives)	<ul style="list-style-type: none"> • This course is designed to enable students to understand basic concepts of pharmacology. • To acquire basic knowledge and skill of pharmacodynamics, principles of therapeutics and pharmacokinetics of commonly used drug and essential medicines
Course Outcomes (Learning Objectives)	<p>At the end of course student should be able to</p> <ol style="list-style-type: none"> 1. Understand basic concepts of pharmacology 2. Describe pharmacodynamics and pharmacokinetics of essential and commonly used drugs 3. List indication, contraindication, interaction and adverse reaction of commonly used drugs 4. Indicate the use of appropriate drug in particular disease with consideration of efficacy, safety and cost of the therapy

	5. Explain and understand the pharmacological basis for prescribing drug in special medical situations
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Unit no.	Theory Topics	Hours allotted No. of-hrs
1.	Drugs affecting Central Nervous system (CNS) :Introduction to CNS,Sedative and Hypnotics,Local Anaesthetics,General Anaesthetics, Antiepileptics, Antidepressants, Antipsychotics, NSAIDS, Opioids and Antiparkinson agents.	13
2.	Hormones and Antagonists: Introduction to Endocrinology, Glucocorticoids,Insulin,Oral hypoglycemic agents,Thyroxine &Antithyroid drugs,Estrogens and Antagonists,Progestins and Antagonists,Oral Contraceptives, Testosterone and Anabolic steroids.	12
3.	Chemotherapeutic agents: General consideration, Sulphonamides and Cotrimoxazole, Fluroquinolones, Penicillins, Cephalosporins and Other beta lactam antibiotics, Aminoglycosides, Macrolides, Tetracyclines and Chloramphenicol, Antitubercular drugs, Antileprotic agents, Antimalarial agents, Antiamoebic agents, Antihelminthics, Antifungal agents, Antiviral agents and Cancer Chemotherapy.	20
	Total	45


Dr. Rajesh B. Goel
 Registrar
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