

Performa : Bhagwan Mahaveer Institute Of Medical Sciences

Lesson plan

Name of the faculty	Pooja	
Discipline	D.Pharmacy	
Semester/Year and Session	2nd Year (2025 -26)	
Commencement of classes	04/08/2025	
Subject	Biochemistry and Clinical Pathology	
Work load/week(in hour)	Lecture- 03; practical – 03	
Week	Theory	Practical
	Topic	Topic
1st(Aug 2ndweek)	Introduction to biochemistry, Scope of biochemistry in pharmacy, Cell and its biochemical organization.	Qualitative analysis of Glucose
2nd(Aug 3rdweek)	Carbohydrates: Definition, classification with examples, chemical properties Monosaccharides - Structure of glucose, fructose, and galactose, Disaccharides - structure of maltose, lactose, and sucrose	Qualitative analysis of Fructose
3rd(Aug 4thweek)	Polysaccharides - chemical nature of starch and glycogen Qualitative tests and biological role of carbohydrates	Qualitative analysis of Maltose
4th(Sep 1stweek)	Proteins: Definition, classification of proteins based on composition and solubility with examples	Qualitative analysis of Starch
5th((Sep 2nd week)	Definition, classification of amino acids based on chemical nature and nutritional requirements with examples	Qualitative analysis of Proteins and amino acids
6th ((Sep 3rd week)	Class test/ Quiz (Practical/ Theory)	Qualitative analysis of Proteins and amino acids
	Structure of proteins (four levels of organization of protein structure) Qualitative tests and biological role of proteins and amino acids Diseases related to malnutrition of proteins.	
7th ((Sep 4th week)	Assignment	Qualitative analysis of Proteins and amino acids
	Lipids: Definition, classification with examples Structure and properties of triglycerides (oils and fats) Fatty acid classification - Based on chemical and nutritional requirements with examples	
8th (Oct 1st week)	Structure and functions of cholesterol in the body Lipoproteins - types, composition and functions in the body Qualitative tests and functions of lipids	Qualitative analysis of Proteins and amino acids
9th(Oct 2nd week)	Nucleic acid: Definition, purine and pyrimidine bases Components of nucleosides and nucleotides with examples	Qualitative analysis of lipids
10th (Oct	Class test/ Quiz (Practical/ Theory)	Qualitative analysis of lipids

3 rd week)	Structure of DNA (Watson and Crick model), RNA and their functions	
11 th (Oct 4 th week	Definition, properties and IUB and MB classification	Qualitative analysis of urine for normal and abnormal constituents
	Factors affecting enzyme activity	
	Extension/ Expert Lectures Assignment	
12 nd (Nov 1 st week)	Mechanism of action of enzymes, Enzyme inhibitors, Therapeutic and pharmaceutical importance of enzymes	Qualitative analysis of urine for normal and abnormal constituents
13 th (Nov 2 nd week)	1st SESSIONAL	
14 th (Nov 3 rd week)	Vitamins: Definition and classification with examples	Qualitative analysis of urine for normal and abnormal constituents
	Sources, chemical nature, functions of vitamins Display of 1 Sessional Test Marks	
15 th (Nov 4 th week)	Coenzyme form, recommended dietary requirements, deficiency diseases of fat-and water-soluble vitamins	Qualitative analysis of urine for normal and abnormal constituents
	1 st Parent Teachers Meeting	
	Extension/ Expert Lectures	
16 th (Dec 1 st week)	Metabolism (Study of cycle/pathways without chemical structures) Metabolism of Carbohydrates: Glycolysis, TCA cycle	Determination of constituents of urine (glucose)
17 th (Dec 2 nd week)	Glycogen metabolism Regulation of blood glucose level.	Determination of constituents of urine (creatinine)
18 th (Dec 3 rd week)	Diseases related to abnormal metabolism of Carbohydrates	Determination of constituents of urine (chlorides)
	Class test/ Quiz (Prctical/ Theory)	
19 th (Dec 4 th week)	Metabolism of lipids: Lipolysis, β-oxidation of Fatty acid (Palmitic acid)	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)
	ketogenesis and ketolysis. Extension/ Expert Lectures	
	Assignment	
20 th (Jan 1 st week)	Diseases related to abnormal metabolism of lipids such as Ketoacidosis, Fatty liver, Hypercholesterolemia	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)
21 st (Jan 2 nd week)	Metabolism of Amino acids (Proteins): General reactions of amino acids and its significance Transamination, deamination, Urea cycle and decarboxylation.	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)
22 nd (Jan 3 rd week)	Diseases related to abnormal metabolism of amino acids, Disorders of ammonia metabolism, phenylketonuria, alkaptonuria and Jaundice.	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)
	Class test/ Quiz (Practical/ Theory)	
23 rd (Jan 4 th week)	Biological oxidation: Electron transport chain and Oxidative phosphorylation	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol,

	Extension/ Expert Lectures	Calcium, Urea, SGOT/SGPT)
	Assignment	
24th (Feb 1st week)	Minerals: Types, Functions, Deficiency diseases, recommended dietary requirements	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)
25th (Feb 2nd week)	Water and Electrolytes: Distribution, functions of water in the body Water turnover and balance Electrolyte composition of the body fluids, Dietary intake of electrolyte and Electrolyte balance	Determination of constituents of blood/serum (simulated) (Creatine, glucose, cholesterol, Calcium, Urea, SGOT/SGPT)

26th (Feb 3rd week)	2ND SESSIONAL	
27th (Feb 4th week)	Dehydration, causes of dehydration and oral rehydration therapy	Study the hydrolysis of starch from acid and salivary amylase enzyme
	Introduction to Biotechnology	
	Display of 2nd Sessional Test Marks	
	2nd Parent Teachers Meeting	
	Assignment	
28th (Mar 1st week)	Functions of liver and routinely performed tests to assess the functions of liver and their clinical significances	Study the hydrolysis of starch from acid and salivary amylase enzyme
29th (Mar 2nd week)	Lipid profile tests and its clinical significances Introduction to Pathology of Blood and Urine	-----
30th (Mar 3rd week)	Lipid profile tests and its clinical significances Introduction to Pathology of Blood and Urine Lymphocytes and Platelets, their role in health and disease	-----
	Class test/ Quiz (Practical/ Theory)	
31st(Mar 4th week)	Erythrocytes - Abnormal cells and their significance Normal and Abnormal constituents of Urine and their significance	-----
	Extension/ Expert Lectures	
	Assignment	
32nd (Apr 1st week)	Revision and Class test	-----
33rd (Apr 2nd week)	Revision and Class test	-----
-----34th (Apr 3rd week)	Revision and Class test	-----
35th (Apr 4th week)	Revision and Class test	-----

36th (May 1st week)	Revision and Class test	-----
37th (May 2nd week)	Revision and Class test	-----
38th (May 3rd week)	3rd SESSIONAL	-----
39th (May 4th week)	Display of 3rd Sessional Test Marks	-----
	3rd Parent Teachers Meeting	
	Assignment	

Performa : Bhagwan Mahaveer Institute Of Medical Sciences		
Lesson plan		
Name of the faculty	Rekha	
Discipline	D.Pharmacy	
Semester and session	2nd Year (2025-2026)	
Subject	Community Pharmacy and management	
Commencement of Classes	04/08/2025	
Work load/week(in hour)	Lecture- 03; practical – 03	
Week	Theory	Practical
	Topic	Topic
1st(Aug 2ndweek)	Introduction Definition, history and development of community pharmacy - International and Indian scenarios	Handling of prescriptions with professional standards, reviewing prescriptions, checking for legal compliance and completeness.
2nd(Aug 3rdweek)	Professional responsibilities of community pharmacists. Introduction to the concept of Good Pharmacy Practice and SOPs.	Identification of drug-drug interactions in the prescription and follow-up actions.
3rd(Aug 4thweek)	Prescription and prescription handling Definition, parts of prescriptions, legality of prescriptions, prescription handling.	Preparation of dispensing labels and auxiliary labels for the prescribed medications.
4th(Sep 1stweek)	Labeling of dispensed medications (Main label, ancillary label, pictograms), brief instructions on medication usage	Providing the following health screening services for monitoring patients / detecting new patients (one experiment for each activity) Capillary Blood Glucose Monitoring,
5th(Sep 2nd week)	. Dispensing process, Good Dispensing Practices, dispensing errors and strategies to minimize them	Providing the following health screening services for monitoring patients / detecting new patients (one experiment for each activity) Blood Pressure recording.
6th (Sep 3rd week)	Class test/ Quiz (Practical/ Theory)	Providing the following health screening services for monitoring patients / detecting new patients (one experiment for each activity) Lung function assessment using Peak Flow Meter and incentive spirometer.
	Communication skills Definition, types of communication skills Interactions with professionals and patients.	
7th (Sep 4th week)	Verbal communication skills (one-to-one, over the telephone).	Providing the following health screening services for monitoring patients / detecting new patients (one experiment for each activity) recording capillary oxygen level using Pulse Oximeter
	Extension/ Expert Lectures	
	Assignment	
8th (Oct 1st week)	Written communication skills. Body language Patient interview techniques	Providing the following health screening services for monitoring patients / detecting new patients (one experiment for each activity) BMI measurement
9th(Oct 2nd week)	Medication Adherence Definition, factors influencing non-adherence, strategies to overcome non-adherence	Providing counselling to simulated patients for the following chronic diseases / disorders including education on the use of devices such as insulin pen for type 2 diseases.

10 th (Oct 3 rd week)	Health Screening Services in Community Pharmacy Introduction, scope, and importance of various health screening services	Providing counselling to simulated patients for the following chronic diseases / disorders including education on the use of devices such as inhalers for asthma.
	Class test/ Quiz (Practical/ Theory)	
11 th (Oct 4 th week)	Routine monitoring of patients, early detection, and referral of undiagnosed cases	Providing counselling to simulated patients for the following chronic diseases / disorders including education on the use of devices such as spacers for hypertension.
	Extension/ Expert Lectures	
	Assignment	
12 nd (Nov 1 st week)	Over The Counter (OTC) Medications, Definition, need and role of Pharmacists in OTC medication dispensing, OTC medications in India, counselling for OTC products	Providing counselling to simulated patients for the following chronic diseases / disorders including education on the use of devices such as nebulizers for asthma.
13 th (Nov 2 nd week)	1 st SESSIONAL	
14 th (Nov 3 rd week)	Self-medication and role of pharmacists in promoting the safe practices during self-medication	Providing counselling to simulated patients for the following chronic diseases / disorders including education on the use of devices such as insulin pen, inhalers, spacers for Rheumatoid Arthritis
	Display of 1 Sessional Test Marks	
15 th (Nov 4 th week)	Responding to symptoms, minor ailments, and advice for self-care in conditions such as - Pain management,	Providing counselling to simulated patients for the following minor ailments (any three) Headache, GI disturbances (Nausea, Vomiting, Dyspepsia, diarrhoea, constipation), Worm infestations, Pyrexia, Upper Respiratory Tract infections, Skin infections, Oral and dental disorders.
	1 st Parent Teachers Meeting	
16 th (Dec 1 st week)	Cough, Cold, Diarrhea, Constipation, Vomiting, Fever, Sore throat.	Appropriate handling of dummy dosage forms with correct administration techniques - oral liquids with measuring cup/cap/dropper, Eye Drops, Inhalers, Nasal drops, Insulin pen, nebulizers, different types of tablets, patches, enemas, suppositories
17 th (Dec 2 nd week)	Skin disorders, Oral health (mouth ulcers, dental pain, gum swelling)	Use of Community Pharmacy Software and digital health tools
18 th (Dec 3 rd week)	Class test/ Quiz (Practical/ Theory)	-----
19 th (Dec 4 th week)	Community Pharmacy Management, Legal requirements to set up a community pharmacy.	-----
	Extension/ Expert Lectures	
	Assignment	
20 th (Jan 1 st week)	Site selection requirements, Pharmacy designs and interiors	-----
21 st (Jan 2 nd week)	Vendor selection and ordering, Procurement, inventory control methods, and inventory management	-----
22 nd (Jan 3 rd week)	Financial planning and management, Accountancy in community pharmacy – Day book, Cash book	-----
	Class test/ Quiz (Practical/ Theory)	
23 rd (Jan 4 th week)	Introduction to pharmacy operation softwares – usefulness and availability, Customer Relation Management (CRM)	-----
	Extension/ Expert Lectures	
	Assignment	

24 th (Feb 1 st week)	Audits in Pharmacies, SOP of Pharmacy Management ☐ Introduction to Digital Health, mHealth and Online pharmacies	-----
25 th (Feb 2 nd week)	Patient counselling ☐ Definition and benefits of patient counselling ☐ Stages of patient counselling - Introduction, counselling content,	-----

26 th (Feb 3 rd week)	2ND SESSIONAL	
27 th (Feb 4 th week)	counselling process, and closing the counselling session ☐ Barriers to effective counseling - Types and strategies to overcome the barriers	-----
	Display of 2nd Sessional Test Marks	
	2 nd Parent Teachers Meeting	
	Assignment	
28 th (Mar 1 st week)	☐ Patient counselling points for chronic diseases/disorders - Hypertension, Diabetes, Asthma, Tuberculosis,	-----
29 th (Mar 2 nd week)	Chronic obstructive pulmonary disease, and AIDS	-----
30 th (Mar 3 rd week)	Patient Package Inserts - Definition, importance and benefits,	-----
31 st (Mar 4 th week)	☐ Scenarios of PPI use in India and other countries ☐ Patient Information leaflets - Definition and uses	-----
32 nd (Apr 1 st week)	Revision and Class test	-----
33 rd (Apr 2 nd week)	Revision and Class test	-----
-----34 th (Apr 3 rd week)	Revision and Class test	-----
35 th (Apr 4 th week)	Revision and Class test	-----
36 th (May 1 st week)	Revision and Class test	-----
37 th (May 2 nd week)	3rd SESSIONAL	
38 th (May 3 rd week)	Display of 3 rd Sessional Test Marks	-----
	3 rd Parent Teachers Meeting	
	Assignment	

Performa: Bhagwan Mahaveer Institute Of Medical Sciences	
Lesson plan	
Name of the faculty	Surbhi Chauhan
Discipline	D.Pharmacy
Semester	2nd Year (2025 – 2026)
Subject	Pharmacy law and ethics
Commencement of Classes	04/08/2025
Work load/week(in hour)	Lecture- 03;
Week	Theory
	Topic
1st(Aug 2ndweek)	General principal law, History, and various acts related to drugs and the pharmacy profession
2nd(Aug 3rdweek)	Pharmacy Act-1948 and Rules: Objectives, Definitions, Pharmacy Council of India: its constitution and functions, Education Regulations, State and Joint State Pharmacy councils
3rd(Aug 4thweek)	Registration of Pharmacists, Offences and Penalties. Pharmacy Practice Regulations 2015
4th(Sep 1stweek)	Drugs and Cosmetics Act 1940 and Rules 1945 and New Amendments Objectives, Definitions, Legal definitions of schedules to the Act and Rules
5th((Sep 2nd week)	Import of drugs - Classes of drugs and cosmetics prohibited from import, Import under license or permit
6th(Sep 3rd week)	Class test/ Quiz (Theory) Manufacture of drugs - Prohibition of manufacture and sale of certain drugs, Conditions for grant of license and conditions of license for manufacture of drugs, Manufacture of drugs for test, examination and analysis
7th(Sep 4th week)	manufacture of new drug, loan license and repacking license. Study of schedule C and C1, G, H, H1, K, P, M, N, and X.
	Assignment
8th(Oct 1st week)	Sale of Drugs - Wholesale, Retail sale and Restricted license, Records to be kept in a pharmacy
9th(Oct 2nd week)	Drugs Prohibited for manufacture and sale in India Administration of the Act and Rules - Drugs Technical Advisory Board, Central Drugs Laboratory
10th(Oct 3rd week)	Drugs Consultative Committee, Government analysts, licensing authorities, controlling authorities, Drug Inspectors
	Class test/ Quiz (Theory)
11th(Oct 4th week)	Narcotic Drugs and Psychotropic Substances Act 1985 and Rules Objectives, Definitions, Authorities and Officers, Prohibition, Control and Regulation, Offences and penalties.
	Extension/ Expert Lectures

	Assignment
12 nd (Nov 1 st week)	Drugs and Magic Remedies (Objectionable Advertisements) Act 1954 Objectives, Definitions, Prohibition of certain advertisements, Classes of Exempted advertisements
13 th (Nov 2 nd week)	1 st SESSIONAL
14 th (Nov 3 rd week)	Prevention of Cruelty to Animals Act-1960: Objectives, Definitions, CPCSEA - brief overview, Institutional Animal Ethics Committee, Breeding and Stocking of Animals, Performance of Experiments
	Display of 1 Sessional Test Marks
15 th (Nov 4 th week)	Transfer and acquisition of animals for experiment, Records, Power to suspend or Revoke Registration, Offences and Penalties
	Parent's teacher meeting
16 th (Dec 1 st week)	Poisons Act-1919: Introduction, objective, definition, possession, possession for sale and sale of any poison, import of poison
17 th (Dec 2 nd week)	FSSAI (Food Safety and Standards Authority of India) Act and Rules: brief overview and aspects related to Manufacture, storage, sale, and labelling of Food Supplements
18 th (Dec 3 rd week)	Class test/ Quiz (Practical/ Theory)
	FSSAI (Food Safety and Standards Authority of India) Act and Rules: brief overview and aspects related to Manufacture, storage, sale, and labelling of Food Supplements
19 th (Dec 4 th week)	National Pharmaceutical Pricing Authority: Drugs Price Control Order (DPCO) - 2013. Objectives, Definitions, Sale prices of bulk drugs, Retail price of formulations,
	Extension/ Expert Lectures
	Assignment
20 th (Jan 1 st week)	Retail price and ceiling price of scheduled formulations, Pharmaceutical Policy 2002, National List of Essential Medicine
21 st (Jan 2 nd week)	Code of Pharmaceutical Ethics: Definition, ethical principles, ethical problem solving, registration, code of ethics for Pharmacist in relation to his job,
22 nd (Jan 3 rd week)	trade, medical profession and his profession, Pharmacist's oath
	Class test/ Quiz (Practical/ Theory)
23 rd (Jan 4 th week)	Role of all the government pharma regulator bodies - Central Drugs Standards Control Organization (CDSCO), Indian Pharmacopoeia Commission (IPC)
	Extension/ Expert Lectures
	Assignment

24 th (Feb 1 st week)	Good Regulatory practices (documentation, licenses, renewals, e-governance) in Community Pharmacy, Hospital pharmacy, Pharma Manufacturing, Wholesale business, inspections, import, export of drugs and medical devices
25 th (Feb 2 nd week)	Introduction to BCS system of classification, Basic concepts of Clinical Trials, ANDA, NDA, New Drug development, New Drugs and Clinical Trials Rules, 2019.
	Blood bank – basic requirements and functions

26 th (Feb 3 rd week)	2ND SESSIONAL
	Clinical Establishment Act and Rules – Aspects related to Pharmacy
27 th (Feb 4 th week)	Biomedical Waste Management Rules 2016 – Basic aspects, and aspects related to pharma manufacture to disposal of pharma / medical waste at homes, pharmacies
	Display of 2nd Sessional Test Marks
	2nd Parent Teachers Meeting
	Assignment
28 th (Mar 1 st week)	Bioethics - Basic concepts, history and principles. Brief overview of ICMR’ s National Ethical Guidelines for Biomedical and Health Research involving human participants
29 th (Mar 2 nd week)	Introduction to the Consumer Protection Act, Introduction to the Disaster Management Act 1., Brand v/s Generic, Trade Name Concept, Introduction to Patent Law and Intellectual Property Rights, Emergency Use
30 th (Mar 3 rd week)	Wholesale business, inspections, import, export of drugs and medical devices, Emergency Use
31 st (Mar 4 th week)	Medical Devices – Categorization, basic aspects related to manufacture and sale
32 nd (Apr 1 st week)	Revision and Class test
33 rd (Apr 2 nd week)	Revision and Class test
-----34 th (Apr 3 rd week)	Revision and Class test
35 th (Apr 4 th week)	Revision and Class test
36 th (May 1 st week)	Revision and Class test
37 th (May 2 nd week)	3rd SESSIONAL
38 th (May 3 rd week)	Display of 3rd Sessional Test Marks

	3rd Parent Teachers Meeting
	Assignment

Performa: Bhagwan Mahaveer Institute of Medical Sciences

Lesson plan

Name of Faculty	Himanshu	
Discipline	D. Pharmacy	
Semester	2nd Year (2025 -26)	
Subject	Hospital and Clinical Pharmacy	
Commencement of Classes	06/08/2025	
Workload/week (in hours)	Lecture: 03; Practical: 02	
Week	Theory	Practical
	Topic	Topic
1st (August 1st week)	<p align="center">Hospital Pharmacy</p> <ul style="list-style-type: none"> • Definition, scope, national and international scenario • Organisational structure • Professional responsibilities, Qualification and experience requirements, job specifications, work load requirements and interprofessional relationships 	Systematic approach to drug information queries using primary / secondary / tertiary resources of information
2nd (August 2nd week)	<p align="center">Hospital Pharmacy</p> <ul style="list-style-type: none"> • Good Pharmacy Practice (GPP) in hospital • Hospital Pharmacy Standards (FIP Basel Statements, AHSP) • Introduction to NAQS guidelines and NABH Accreditation and Role of Pharmacists 	Systematic approach to drug information queries using primary / secondary / tertiary resources of information
3rd (August 3rd week)	<p align="center">Different Committees in the Hospital</p> <ul style="list-style-type: none"> • Pharmacy and Therapeutics Committee - Objectives, Composition, and Functions • Hospital Formulary - Definition, procedure for development and use of hospital formulary • Infection Control Committee – Role of Pharmacist in preventing Antimicrobial Resistance 	Interpretation of laboratory reports to optimize the drug therapy in a given clinical case
Class test/ Quiz (Theory)		
4th (August 4th week)	<p align="center">Supply Chain and Inventory Control</p> <ul style="list-style-type: none"> • Preparation of Drug lists - High Risk drugs, Emergency drugs, Schedule H1 drugs, NDPS drugs, reserved antibiotics 	Interpretation of laboratory reports to optimize the drug therapy in a given clinical case
5th (September 1st week)	<p align="center">Supply Chain and Inventory Control</p> <p>Procedures of Drug Purchases – Drug selection, short-term, long-term, and tender/e-tender process, quotations, etc.</p> <ul style="list-style-type: none"> • Inventory 	Filling up IPC's ADR Reporting Form and perform causality assessments using various scales

	control techniques: Economic Order Quantity, Reorder Quantity Level, Inventory Turnover etc.	
6th (September 2nd week)	Supply Chain and Inventory Control Inventory Management of Central Drug Store – Storage conditions, Methods of storage, Distribution, Maintaining Cold Chain, Devices used for cold storage (Refrigerator, ILR, Walk-in-Cold rooms) • FEFO, FIFO methods	Filling up IPC's ADR Reporting Form and perform causality assessments using various scales
7th (September 3rd week)	Supply Chain and Inventory Control • Expiry drug removal and handling, and disposal. Disposal of Narcotics, cytotoxic drugs • Documentation - purchase and inventory	Demonstration / simulated / hands-on experience on the identification, types, use / application / administration of • Orthopaedic and Surgical Aids such as knee cap, LS belts, abdominal belt, walker, walking sticks, etc.
	Assignment	
8th (September 4th week)	Class test/ Quiz (Practical/Theory)	Different types of bandages such as sterile gauze, cotton, crepe bandages, etc. • Needles, syringes, catheters, IV set, urine bag, RYLE's tube, urine pots, colostomy bags, oxygen masks, etc.
	Drug distribution • Drug distribution (in- patients and out - patients) – Definition, advantages and disadvantages of individual prescription order method, Floor Stock Method, Unit Dose Drug Distribution Method, Drug Basket Method. • Distribution of drugs to ICCU/ICU/NICU/Emergency wards.	
9th (October 1st week)	Drug distribution • Automated drug dispensing systems and devices • Distribution of Narcotic and Psychotropic substances and their storage	
10th (October 2nd week)	Compounding in Hospitals. Bulk compounding, IV admixture services and incompatibilities, Total parenteral nutrition	
11th (October 3rd week)	Radio Pharmaceuticals - Storage, dispensing and disposal of radiopharmaceuticals	
	Class test/ Quiz (Practical/ Theory)	
12th (October 4th week)	Extension/ Expert Lectures	
	Assignment	
	Application of computers in Hospital Pharmacy Practice, Electronic health records, Softwares used in hospital pharmacy	
13th (November 1st)	Clinical Pharmacy: Definition, scope, and	

week)	development - in India and other countries	
14th (November 2nd week)	1st Sessional	
15th (November 3rd week)	Clinical Pharmacy: Technical definitions, common terminologies used in clinical settings and their significance such as Paediatrics, Geriatric,	Case studies on drug-drug interactions
	Display of 1st sessional marks	
16th (November 4th week)	Clinical Pharmacy: Anti-natal Care, Post-natal Care, etc.	Case studies on drug-drug interactions
	1st Parents Teachers' Meeting	
17th (December 1st week)	Clinical Pharmacy: Daily activities of clinical pharmacists: Definition, goal, and procedure of • Ward round participation • Treatment Chart Review • Adverse drug reaction monitoring • Drug information and poisons information • Medication history • Patient counselling • Interprofessional collaboration Pharmaceutical care: Definition, classification of drug related problems. Principles and procedure to provide pharmaceutical care	Wound dressing (simulated cases and role play)
18th (December 2nd week)	Clinical laboratory tests used in the evaluation of disease states - significance and interpretation of test results • Haematological, Liver function, Renal function, thyroid function tests	Wound dressing (simulated cases and role play)
19th (December 3rd week)	Clinical laboratory tests used in the evaluation of disease states - significance and interpretation of test results • Tests associated with cardiac disorders	Vaccination and injection techniques (IV, IM, SC) using mannequins
	Class test/ Quiz(Practical / Theory)	
20th (December 4th week)	Clinical laboratory tests used in the evaluation of disease states - significance and interpretation of test results • Fluid and electrolyte balance • Pulmonary Function Tests	Vaccination and injection techniques (IV, IM, SC) using mannequins
	Extension/ Expert Lectures	
	Assignment	
21st (Jan 1st week)	Poisoning: Types of poisoning: Clinical manifestations and Antidotes	Vaccination and injection techniques (IV, IM, SC) using mannequins

22 nd (Jan 2 nd week)	Drugs and Poison Information Centre and their services – Definition, Requirements, Information resources with examples, and their advantages and disadvantages	Vaccination and injection techniques (IV, IM, SC) using mannequins
	Class test/ Quiz (Practical/Theory)	
23 rd (Jan 3 rd week)	Pharmacovigilance • Definition, aim and scope • Overview of Pharmacovigilance	Vaccination and injection techniques (IV, IM, SC) using mannequins
24 th (Jan 4 th week)	Medication errors: Definition, types, consequences, and strategies to minimize medication errors, LASA drugs and Tallman lettering as per ISMP	Use of Hospital Pharmacy Software and various digital health tools
	Extension/ Expert Lectures	
	Assignment	
25 th (Feb 1 st week)	Drug Interactions: Definition, types, clinical significance of drug interactions	Use of Hospital Pharmacy Software and various digital health tools
26 th (Feb 2 nd week)	Revision and class Test	
27 th (Feb 3 rd week)	2nd Sessional	
28 th (Feb 4 th week)	Display of 2 nd Sessional test marks	
	2 nd Parents Teachers' meeting	
	Extension/ Expert Lectures	
	Assignment	
29 th (March 1 st week)	Drug interactions	
30 th (March 2 nd week)	Revision and Class test	
31 st (March 3 rd week)	Revision and Class test	
32 nd (March 4 th week)	Revision and Class test	
33 rd (April 1 st week)	Revision and Class test	
34 th (April 2 nd week)	Revision and Class test	
35 th (April 3 rd week)	Revision and Class test	
36 th (April 4 th week)	Revision and Class test	

37th (May 1st week)	Revision and Class test,	
	Assignment	
38th (May 2nd week)	3rd SESSIONAL	
39th (May 3rd week)	Display of 3 rd Sessional Test Marks	
	3rd Parent-Teacher Meeting	

Performa: Bhagwan Mahaveer Institute of Medical Sciences

Lesson plan

Name of Faculty	Dheeraj	
Discipline	D. Pharmacy	
Semester	2nd Semester	
Subject	Pharmacology	
Commencement of Classes	04/08/2025	
Workload/week (in hours)	Lecture: 03; Practical: 02	
Week	Theory	Practical
	Topic	Topic
1st (August 1st week)	Introduction to Pharmacology: the Scope of Pharmacology	Effect of potassium and calcium ions, acetylcholine and adrenaline on the frog's heart.
2nd (August 2nd week)	Routes of administration of drugs: their advantages and disadvantages. Various processes of absorption of drugs and the factors affecting them. Metabolism, distribution and excretion of drugs.	
3rd (August 3rd week)	General mechanism of drug action : And their factors which modify the drug's action. Pharmacological classification of drugs. The discussion of drugs should emphasise the following aspects	Effect of acetyl choline on the rectus abdominis muscle of the frog and guinea pig ileum.
Class test/ Quiz (Theory)		
4th (August 4th week)	Drugs acting on the central Nervous system: General anaesthetics- adjunct to anaesthesia, intravenous anaesthetics, Local anaesthetics	Effect of local anaesthetics on rabbit cornea.
5th (September 1st week)	Drugs acting on the central Nervous system: Analgesic antipyretics and non-steroidal	Effect of spasmogens and relaxants on the rabbit's intestine.
6th (September 2nd week)	Drugs acting on the central Nervous system: Anti-inflammatory drugs- Narcotic analgesics	Effect of mydriatics and miotics on the rabbit's eye.
7th (September 3rd week)	Drugs acting on the central Nervous system: Antirheumatic and anti-gout remedies.	To study the action of strychnine on the frog.
	Assignment	

8 th (September 4 th week)	Class test/ Quiz (Practical/Theory)	
	Drugs acting on the central Nervous system: Sedatives and Hypnotics, psychopharmacological agents, anticonvulsants, analeptics, Centrally acting muscle relaxants and anti-Parkinsonism agents.	
9 th (October 1 st week)	Drugs acting on the central Nervous system: Drugs acting on the autonomic nervous system. Cholinergic drugs, Anticholinergic drugs, anticholinesterase drugs.	
10 th (October 2 nd week)	Drugs acting on the central Nervous system: Adrenergic drugs and adrenergic receptor blockers.	
11 th (October 3 rd week)	Drugs acting on the central Nervous system: Neurone blockers and ganglion blockers. Neuromuscular blockers, used in myasthenia gravis. Drugs acting on the eye: Mydriatics, drugs used in glaucoma.	
	Class test/ Quiz (Practical/ Theory)	
12 th (October 4 th week)	Assignment	
	Drugs acting on the respiratory system Respiratory stimulants, Bronchodilators, Nasal decongestants, Expectorants and Antitussive agents.	
13 th (November 1 st week)	Autocoids: Physiological role of histamine and serotonin, Histamine and Antihistamines, and prostaglandins.	
14 th (November 2 nd week)	1st Sessional	
15 th (November 3 rd week)	Cardiovascular drugs: Cardiotonics, Antiarrhythmic agents, Anti-anginal agents,	
	Display of 1st sessional marks	
16 th (November 4 th week)	Cardiovascular drugs: Antihypertensive agents, peripheral Vasodilators and drugs used in atherosclerosis.	Effect of convulsants and anticonvulsants in mice or rats.
	1st Parents Teachers' Meeting	

17 th (December 1 st week)	Drugs acting on the blood and blood-forming organs. Haematinics, coagulants and anticoagulants, Haemostatic, Blood substitutes and plasma expanders.	Taming and hypnosis potentiating effect of chlorpromazine in mice/rats.
18 th (December 2 nd week)	Drugs affecting renal function- Diuretics and anti-diuretics	Test for pyrogens.
19 th (December 3 rd week)	Hormones and hormone antagonists- Hypoglycemic agents, anti-thyroid drugs,	
	Class test/ Quiz(Pracial / Theory)	Effect of diphenhydramine in experimentally produced asthma in guinea pigs.
20 th (December 4 th week)	Hormones and hormone antagonists- sex hormones and oral contraceptives, corticosteroids.	
	Assignment	
21 st (Jan 1 st week)	Drugs acting on the digestive system- carminatives, digestive aids, Bitters, Antacids and drugs used in peptic ulcer,	Effect of digitalis on the frog's heart.
22 nd (Jan 2 nd week)	Drugs acting on the digestive system- purgatives, laxatives, antidiarrheals, Emetics, Antiemetics, and Antispasmodics.	
	Class test/ Quiz (Practical/Theory)	
23 rd (jan 3 rd week)	Chemotherapy of microbial diseases: Urinary antiseptics, sulphonamides, penicillin,	Effect of hypnotics in mice.
24 th (jan 4 th week)	Chemotherapy of microbial diseases: streptomycin, Tetracyclines and other antibiotics.	
	Assignment	
25 th (feb 1 st week)	Chemotherapy of microbial diseases: Anti-tubercular agents, Antifungal agents,	
26 th (feb 2 nd week)	Chemotherapy of microbial diseases: antiviral drugs and anti-leprotic drugs.	
27 th (feb 3 rd week)	2nd Sessional	
28 th (feb 4 th week)	Display of 2 nd Sessional test marks	
	2 nd Parents Teachers' meeting	
	Assignment	
29 th (march 1 st week)	Chemotherapy of microbial diseases: Chemotherapy of protozoal diseases,	
30 th (March 2 nd week)	Chemotherapy of microbial diseases: Anthelmintic drugs.	
31 st (march 3 rd week)	Chemotherapy of cancer.	

32nd (March 4th week)	Disinfectants and antiseptics.	
33rd (April 1st week)	Revision and Class test	
34th (April 2nd week)	Revision and Class test	
35th (April 3rd week)	Revision and Class test	
36th (April 4th week)	Revision and Class test	
37th (May 1st week)	Revision and Class test,	
	Assignment	
38th (May 2nd week)	3rd SESSIONAL	
39th (May 3rd week)	Display of 3 rd Sessional Test Marks	
	3rd Parent-Teacher Meeting	

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Lesson plan

Name of the faculty	Vikash	
Discipline	D.Pharmacy (2024-2026)	
Year	2nd Year	
Subject	Pharmacotherapeutics	
Work load/week(in hour)	Lecture- 03; practical – 01	
Week	Theory	Practical
	Topic	Topic
1st(Aug 2ndweek)	Pharmacotherapeutics – Introduction, scope, and objectives. Rational use of Medicines	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases
2nd(Aug 3rdweek)	Evidence Based Medicine, Essential Medicines List, Standard Treatment Guidelines (STGs)	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Hypertension
3rd(Aug 4thweek)	Cardiovascular System: Hypertension, Angina and Myocardial infarction	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Angina Pectoris
4th(Sep 1stweek)	Hyperlipidaemia & Congestive Heart Failure	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Myocardial Infarction
5th((Sep 2nd week)	Respiratory System: Asthma & COPD	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Hyperlipidaemia
6th((Sep 3rd week)	Class test/ Quiz (theory/practical)	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Asthma
	Endocrine System: Diabetes, Thyroid disorders - Hypo and Hyperthyroidism	
7th((Sep 4th week)	Central Nervous System: Epilepsy, Parkinson's disease	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Epilepsy
	Assignment	
8th (Oct 1st week)	Alzheimer's disease, Stroke & Migraine	Preparation and discussion of SOAP (Subjective, Objective,

		Assessment and Plan) notes for at least SIX clinical cases of Stroke
9th(Oct 2nd week)	Gastro Intestinal Disorders: Gastro oesophageal reflux disease	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Depression
10th (Oct 3rd week)	Peptic Ulcer Disease	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Rheumatoid arthritis
	Class test/ Quiz (theory/practical)	
11th (Oct 4th week)	Inflammatory Bowel Diseases (Crohn's Disease and Ulcerative Colitis)	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Tuberculosis
	Extension/Expert lectures	
	Assignment	
12nd (Nov 1st week)	Alcoholic liver disease & Revision	File check and viva
13th (Nov 2nd week)	1st SESSIONAL EXAM	
14th (Nov 3rd week)	Haematological disorders: Iron deficiency anaemia	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Anaemia
	Display of first sessional marks	
15th (Nov 4th week)	Megaloblastic anaemia	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of viral infection
	1 st parent teacher meeting	
	Extension/Expert lectures	
16th (Dec 1st week)	Infectious diseases: Tuberculosis	Preparation and discussion of SOAP (Subjective, Objective, Assessment and Plan) notes for at least SIX clinical cases of Dermatological condition
17th (Dec 2nd week)	Pneumonia, Urinary tract infections, Hepatitis	Patient counselling exercises using role plays based on the real / hypothetical clinical case scenarios
18th (Dec 3rd week)	Class test/ Quiz (theory/practical)	The students are expected to provide counselling on disease condition, medications, life-style modifications, monitoring

		parameters, etc. and the same shall be documented.
19 th (Dec 4 th week)	Gonorrhoea and Syphilis	-----
	Extension/Expert lectures	
	Assignment	
20 th (Jan 1 st week)	Malaria, HIV and Opportunistic infections	-----
21 st (Jan 2 nd week)	Viral Infections (SARS, CoV2)	-----
22 nd (Jan 3 rd week)	Musculoskeletal disorders, Rheumatoid arthritis, Osteoarthritis	-----
	Class test/ Quiz (theory/practical)	
23 rd (Jan 4 th week)	Dermatology: Psoriasis	-----
	Extension/Expert lectures	
	Assignment	
24 th (Feb 1 st week)	Scabies, Eczema	-----
25 th (Feb 2 nd week)	Revision And Group Discussion	-----
26 th (Feb 3 rd week)	2ND SESSIONAL EXAM	
27 th (Feb 4 th week)	Psychiatric Disorders: Depression	-----
	Display of 2 nd Sessional marks	-----
	2 nd Parent teacher meeting	-----
28 th (Mar 1 st week)	Assignment	-----
	Anxiety, Psychosis	-----
29 th (Mar 2 nd week)	Ophthalmology: Conjunctivitis (bacterial and viral), Glaucoma	-----
30 th (Mar 3 rd week)	Anti-microbial Resistance	-----
31 st (Mar 4 th week)	Women's Health, Polycystic Ovary Syndrome, Dysmenorrhea, Premenstrual Syndrome	-----
32 nd (Apr 1 st week)	Revision And Class test	-----
33 rd (Apr 2 nd week)	Revision And Class test	-----

34th (Apr 3rd week)	Revision And Class test	-----
35th (Apr 4th week)	Revision And Class test	-----
36th (May 1st week)	Revision And Class test	-----
37th (May 2nd week)	3rd SESSIONAL EXAM	
38th (May 3rd week)	Display of 3 rd sessional marks	-----
	3 rd Parent teacher meeting	
	Assignment	