

<b>Institute/School Name</b>	Chitkara College of Pharmacy		
<b>Department Name</b>	Pharmacy		
<b>Programme Name</b>	B.Pharmacy		
<b>Course Name</b>	Pharmacy Practice (Theory)	<b>Session</b>	July-Dec 25
<b>Course Code</b>	BP703T	<b>Semester/Batch</b>	7 <sup>th</sup> / 2022
<b>L-T-P(Per Week)</b>	3-1	<b>Course Credits</b>	4
<b>Pre-requisite</b>	Basic of Pharmacology and Clinical Pharmacy	<b>NHEQF Level</b>	6
<b>Course Coordinator</b>	Dr. Onkar Bedi		
<b>SDG</b>	SDG3: Good Health & Well Being SDG4: Quality Education		

### Objectives of the Course:

**Scope:** In the changing scenario of pharmacy practice in India, for successful practice of Hospital Pharmacy, the students are required to learn various skills like drug distribution, drug information, and therapeutic drug monitoring for improved patient care. In community pharmacy, students will be learning various skills such as dispensing of drugs, responding to minor ailments by providing suitable safe medication, patient counselling for improved patient care in the community set up.

**Objectives:** Upon completion of the course, the student shall be able to know various drug distribution methods in a hospital, appreciate the pharmacy stores management and inventory control, monitor drug therapy of patient through medication chart review and clinical review, obtain medication history interview and counsel the patients, identify drug related problems, detect and assess adverse drug reactions, interpret selected laboratory results (as monitoring parameters in therapeutics) of specific disease states, know pharmaceutical care services, do patient counseling in community pharmacy; appreciate the concept of Rational drug therapy.

### Course Outcomes (COs)

Students should be able to:

	<b>COs</b>	<b>Program Outcomes (PO)</b>	<b>NHEQF Level Descriptor</b>	<b>No. of Lectures</b>
<b>CO01</b>	Demonstrate knowledge of and ability to use principles of therapeutics, quality improvement, communication, economics, health behavior, social and administrative aspects, health policy and legal issues in the practice of pharmacy.	PO: 1,3,6,8,9,10,11	Q2	<b>27</b>
<b>CO02</b>	Apply knowledge of drug distribution methods in hospital and apply it in the practice of pharmacy.	PO: 1,2,3,9	Q3	<b>4</b>
<b>CO03</b>	Apply principles of drug store management and inventory control to medication use.	PO: 1,2,3,9	Q3	<b>06</b>
<b>CO04</b>	Provide patient-centered care to diverse patients using the best available evidence and monitor drug therapy of patient through medication chart review, obtain medication history interview and counsel the patients, identify drug related problems.	PO: 1,3,6,9,10,11	Q4	<b>06</b>

<b>CO05</b>	Exhibit professional ethics by producing safe and appropriate medication use throughout society	PO: 9	Q4	<b>02</b>
<b>Total Contact Hours</b>				<b>45</b>

**CO-PO Mapping**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	Type of Assessment's
CO01	3		3			3		2	3	2	2	Summative/ Formative
CO02	3	2	3						3			Summative/ Formative
CO03	3	3	2						3			Summative/ Formative
CO04	3		3			3			3	2	2	Summative/ Formative
CO05									3			

3=High, 2=Medium, 1=Low

**Recommended Books:**

- B01:** Sourabh Kosey, Pharmacy Practice, Nirali Prakashan, Third Edition, Jan 2022, ISBN: 978-93-90225-50-7
- B02:** Merchant S.H. and Dr. J.S.Quadry. A textbook of hospital pharmacy, 4th ed. Ahmadabad: B.S. Shah Prakashan; 2001.
- B03:** Parthasarathi G, Karin Nyfort-Hansen, Milap C Nahata. A textbook of Clinical Pharmacy Practice-essential concepts and skills, 1st ed. Chennai: Orient Longman Private Limited; 2004.
- B04:** William E. Hassan. Hospital pharmacy, 5th ed. Philadelphia: Lea and Febiger; 1986.

**Other readings and relevant websites:**

Serial No	Link of Journals, Magazines, websites and Research Papers
1.	<a href="https://www.slideshare.net/slideshow/hospital-pharmacy-and-its-organisation/233937075">https://www.slideshare.net/slideshow/hospital-pharmacy-and-its-organisation/233937075</a>
2.	<a href="https://www.slideshare.net/slideshow/hospital-formulary/33883817">https://www.slideshare.net/slideshow/hospital-formulary/33883817</a>
3.	<a href="https://www.scribd.com/document/812680426/Community-Pharmacy-and-Management-Notes">https://www.scribd.com/document/812680426/Community-Pharmacy-and-Management-Notes</a>
4.	<a href="https://www.slideshare.net/slideshow/drug-store-management-inventory-control/250665057">https://www.slideshare.net/slideshow/drug-store-management-inventory-control/250665057</a>
5.	<a href="https://www.iajps.com/wp-content/uploads/2024/02/68.IAJPS68012024.pdf">https://www.iajps.com/wp-content/uploads/2024/02/68.IAJPS68012024.pdf</a>

Lecture No.	Topics	Book No, CH No, Page No	TLM <sup>1</sup>	ALM <sup>2</sup>	Web Referen ces	Audio-Video
1-2	<b>Unit 1</b> Hospital and its organization: Definition, Classification of hospital- Primary, Secondary and Tertiary hospitals, Classification based on clinical and non- clinical basis, Organization Structure of a Hospital, and Medical staffs involved in the hospital and their functions.	B01, CH 1, Page no 1.1 – 1.18	Lecture	Group Discussion,	N.A.	N.A.
3-5	<b>Unit 1</b> Hospital pharmacy and its organization: Definition, functions of hospital pharmacy, Organization structure, Location, Layout and staff requirements, and Responsibilities and functions of hospital pharmacists.	B01, CH 2, Page no 2.1 – 2.14	Lecture Discussion	Case study, Leading Question, Video clips	N.A.	N.A.
6	<b>Unit 1</b> Adverse drug reaction: Classifications - Excessive pharmacological effects, secondary pharmacological effects, idiosyncrasy, allergic drug reactions, genetically determined toxicity, toxicity following sudden withdrawal of drugs, Drug interaction- beneficial interactions, adverse interactions, and pharmacokinetic drug interactions, Methods for detecting drug interactions, spontaneous case reports and record linkage studies, and Adverse drug reaction reporting and management.	B01, CH 3, Page no 3.1 – 3.16	Lecture Demonstration method using a simulation	Group Discussion,	N.A.	N.A.
7	<b>Unit 1</b> Community Pharmacy: Organization and structure of retail and wholesale drug store, types and design, Legal requirements for	B01, CH 4, Page no 4.1 – 4.19	Lecture Reviewing	Group Discussion,		N.A.

	establishment and maintenance of a drug store, Dispensing of proprietary products, maintenance of records of retail and wholesale drug store.					
<b>8-9</b>	<b>Unit 2</b> Drug distribution system in a hospital: Dispensing of drugs to inpatients, types of drug distribution systems, charging policy and labelling, Dispensing of drugs to ambulatory patients, and Dispensing of controlled drugs.	B01, CH 5, Page no 5.1 – 5.17	Lecture Questioning	Group Discussion,	N.A.	N.A.
<b>10-11</b>	<b>Unit 2</b> Hospital formulary: Definition, contents of hospital formulary, Differentiation of hospital formulary and Drug list, preparation and revision, and addition and deletion of drug from hospital formulary. Therapeutic drug monitoring: Need for Therapeutic Drug Monitoring, Factors to be considered during the Therapeutic Drug Monitoring, and Indian scenario for Therapeutic Drug Monitoring.	B01, CH 6, Page no 6.1 – 6.10	Lecture Demonstration method using a simulation	Leading Question, Video clips	N.A.	N.A.
<b>12-13</b>	<b>Unit 2</b> Medication adherence: Causes of medication non-adherence, pharmacist role in the medication adherence, and monitoring of patient medication adherence.	B01, CH 8, Page no 8.1 – 8.10	Lecture Reviewing	Group Discussion,	N.A.	N.A.
<b>14</b>	<b>Unit 2</b> Patient medication history interview: Need for the patient medication history interview, medication interview forms.	B01, CH 9, Page no 9.1 – 9.9	Lecture	Group Discussion,	N.A.	N.A.
	<b>Unit 2</b> Community pharmacy management: Financial, materials, staff, and infrastructure requirements.	B01, CH 10, Page no 10.1 – 10.13	Lecture Discussion	Leading Question, Video clips	N.A.	N.A.
<b>15</b>	<b>Unit 5</b> Interpretation of Clinical Laboratory Tests: Blood chemistry, hematology, and urinalysis	B01, CH 21, Page no 21.1 – 21.6	Lecture	Leading Question, Video clips	N.A.	N.A.

16-17	<b>Unit 3</b> Pharmacy and therapeutic committee: Organization, functions, Policies of the pharmacy and therapeutic committee in including drugs into formulary, inpatient and outpatient prescription, automatic stop order, and emergency drug list preparation.	B01, CH 11, Page no 11.1 – 11.12	Lecture Discussion	Group Discussion		N.A.
18-20	<b>Unit 3</b> Drug information services: Drug and Poison information centre, Sources of drug information, Computerised services, and storage and retrieval of information. Patient counseling: Definition of patient counseling; steps involved in patient counseling, and Special cases that require the pharmacist.	B01, CH 12, Page no 12.1 – 12.12 B01, CH 13, Page no 13.1 – 13.10	Lecture	Group Discussion	N.A.	N.A.
21-24	<b>Unit 3</b> Education and training program in the hospital: Role of pharmacist in the education and training program, Internal and external training program, Services to the nursing homes/clinics, Code of ethics for community pharmacy, and Role of pharmacist in the interdepartmental communication and community health education.  Prescribed medication order and communication skills: Prescribed medication order- interpretation and legal requirements, and Communication skills-communication with prescribers and patients	B01, CH 14, Page no 14.1 – 14.12 B01, CH 15, Page no 15.1 – 15.9	Lecture Discussion	Leading Question, Video clips		N.A.
25-26	<b>Unit 4</b> Budget preparation and implementation: Budget preparation and implementation Clinical Pharmacy: Introduction to Clinical Pharmacy, Concept of clinical pharmacy, functions and responsibilities of clinical pharmacist, Drug therapy monitoring - medication chart review, clinical review,	B01, CH 16, Page no 16.1 – 16.6 B01, CH 17, Page no 17.1 – 17.16	Lecture Questioning	Oral Quiz		N.A.

	pharmacist intervention, Ward round participation, Medication history and Pharmaceutical care. Dosing pattern and drug therapy based on Pharmacokinetic and disease pattern.					
<b>32-35</b>	<b>Unit 4</b> Over the counter (OTC) sales: Introduction and sale of over the counter, and Rational use of common over the counter medications.	B01, CH 18, Page no 18.1 – 18.9	Lecture	Oral Quiz	N.A.	N.A.
<b>38-40</b>	<b>Unit 5</b> Drug store management and inventory control: Organisation of drug store, types of materials stocked and storage conditions	B01, CH 19, Page no 19.1 – 19.15	Discussion	Leading Question, Video clips	N.A.	N.A.
<b>41-43</b>	<b>Unit 5</b> Purchase and inventory control: principles, purchase procedure, purchase order, procurement and stocking, Economic order quantity, Reorder quantity level, and Methods used for the analysis of the drug expenditure.	B01, CH 19, Page no 19.1 – 19.15	Lecture Demonstration method using a simulation	Group Discussion,		N.A
<b>44-45</b>	<b>Unit 5</b> Investigational use of drugs: Description, principles involved, classification, control, identification, Role of hospital pharmacist, advisory committee	B01, CH 20, Page no 20.1 – 20.8  B01, CH 20, Page no 20.1 – 20.8	Lecture Reviewing	Group Discussion,	N.A.	N.A

Teacher in-charge

Assistant Dean

Dean