



# SYLLABUS

<b>Course Title</b>	<b>DISPENSING PHARMACY</b>	
<b>Course Code</b>	PH302	
<b>Course Credit</b>	Lecture	: 3
	Practical	: 2
	Tutorial	: 0
	Total	: 5
<b>Course Objectives</b>		
<p>On the completion of the course, students will be able to:</p> <ul style="list-style-type: none"><li>▪ Understand the basic concepts of formulation, labeling, packing of different types of pharmaceutical dosage forms.</li><li>▪ Students should be able to know the appropriate dose calculation and drug for patient.</li></ul>		
<b>Detailed Syllabus</b>		
<b>Sr. No.</b>	<b>Name of Chapter &amp; Details</b>	<b>Hours Allotted</b>
	<b>Section-I</b>	
1	<b>Definition and scope of dispensing pharmacy</b>	01
2	<b>The prescription:</b> Handling of prescription, parts of prescription, source of errors in	05

	prescription, care required in dispensing procedures including labeling at dispensed products, latin terms used in prescription writing, latin terms and their english meaning.	
3	<b>Posology:</b> Definition, factors affecting doses, Calculations of doses for infants, adults and elderly patients.	03
4	<b>Pharmaceutical calculations:</b> Conversion from metric to imperial system and imperial system to metric system, household measures, addition, subtraction, multiplication, division, enlarging and reducing recipes, percentage solutions, dilution methods, allegation, alcohol dilution, proof spirit, isotonic solutions, etc.	10
5	<b>Dispensing techniques:</b> Compounding and dispensing procedures, packaging, storage and stability of medicines, labeling of dispensed products.	04
	<b>Section-II</b>	
6	A detail study of the following dispensed products (Definition, characteristics, classification/ types, advantages, limitation, formulation and formulation ingredients, dispensing procedure, evaluation, labelling, storage, packaging, and study of some prescription relating to the dispensed products) <b>Liquid products:</b> Oral and external solutions, Mixtures, Emulsion, Suspension, Syrup, Linctuses, Elixir, Mouth wash, Gargles, Throat paint, Glycerites, Ear drops, Nasal drops, Douches, Enema, Collodions, Lotion and Liniments. <b>Powders:</b> Divided powder, Bulk powder, Effervescent powder, Dusting	16

	powder, Insufflation, Snuff and Dentifrice powder.	
<b>7</b>	<b>Incompatibilities:</b> Definition, problems and remedies for therapeutic incompatibilities, physical incompatibilities and chemical incompatibilities of above liquid and powder products.a	<b>06</b>

### Dispensing Pharmacy (Practical)

1. Preparation, labeling and packing of Oral & external solutions.
2. Preparation, labeling and packing of solutions used for nose, eye, rectum, vagina etc.
3. Preparation, labeling and packing of suspensions containing diffusible Solids, in-diffusible solids, poorly wettable solids.
4. Preparation, labeling and packing of suspensions containing precipitate forming liquids, suspensions prepared by chemical reaction etc.
5. Preparation, labeling packing of emulsion containing fixed oil, volatile oil, both types of oil, mineral oil etc.
6. Preparation, labeling & packing of external emulsions.
7. Preparation, labeling and packing of bulk powders, divided powders etc.
8. Preparation, labeling and packing of effervescent granules.
9. Preparation, labeling and packing of dentifrice powder.
10. Preparation, labeling and packing of powder containing eutectic substance.
11. Other practicals covering syllabus aspects.

### Instructional Method and Pedagogy:

- Lectures will be conducted with the aid of multi-media projector, black board, OHP etc.
- Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval.

- Surprise tests/Quizzes/Seminar/Tutorials will be conducted.
- The course includes language practices such as Group Discussion, Interviews etc to develop the communication skills of the students.

#### **Students Learning Outcomes:**

- By the end of this course, the student should have a good understanding of basic process which are used in different stage during preparation of pharmaceutical formulation.
- Students should be able to know calculation of formulas, labeling, and packing of different types of pharmaceutical products.

#### **Text Books:**

1. Dispensing for pharmaceutical students” by Copper and Gunn by S.J.Carter, 12th Edn. CBS Publishers.
2. Copper and Gun’s Tutorial Pharmacy by S.J.Carter.
3. Dispensing pharmacy by Dr. G.K. Jani, B.S. Shah Prakashan.

#### **Reference Books:**

1. The Science & Practice of Pharmacy: A. G. Remington; Lippincott, Philadelphia.
2. Pharmaceutical Practice – by Diana M. Collett and Michale E. Aulton, ELBS Publishers.
3. Remington: The Science and Practice of Pharmacy, Latest Edition, by Mack Publishing Company.

#### **Additional Resources**

- Soft copies of dispensing pharmacy books are available on <http://www.pharmatext.org>
- Latest information regarding to dispensing pharmacy content are available on

<http://www.pharmainfo.net> and [mypharmaguide.com](http://mypharmaguide.com).

- Soft copies of dispensing pharmacy subjects presentation and material are available on <http://www.authorstream.com>.