

GUJARAT TECHNOLOGICAL UNIVERSITY

Pharm.D.

1st year

Subject Name: Pharmaceutics

Subject Code: 818802

Teaching Scheme				Evaluation Scheme				Total Marks
Theory	Tutorial	Practical	Total	Theory		Practical		
				External	Internal	External	Internal	
2	1	3	6	70	30	70	30	200

Sr. No.	Course Contents	Hours	Module Weightage
1	a. Introduction to dosage forms - classification and definitions b. Prescription: definition, parts and handling c. Posology: Definition, Factors affecting dose selection. Calculation of children and infant doses.	6	10%
2	Historical back ground and development of profession of pharmacy and pharmaceutical industry in brief.	2	3%
3	Development of Indian Pharmacopoeia and introduction to other Pharmacopoeias such as BP, USP, European Pharmacopoeia, Extra pharmacopoeia and Indian national formulary.	2	3%
4	Weights and measures, Calculations involving percentage solutions, allegation, proof spirit, isotonic solutions etc.	5	8.5%
5	Powders and Granules: Classification advantages and disadvantages, Preparation of simple, compound powders, Insufflations, Dusting powders, Eutectic and Explosive powders, Tooth powder and effervescent powders and granules.	8	13.5%
6	Monophasic Dosage forms: Theoretical aspects of formulation including adjuvant like stabilizers, colorants, flavours with examples. Study of Monophasic liquids like gargles, mouth washes, Throat paint, Ear drops, Nasal drops, Liniments and lotions, Enemas and collodions.	7	11.5%
7	Biphasic dosage forms: Suspensions and emulsions, Definition, advantages and disadvantages, classification, test for the type of emulsion, formulation, stability and evaluation.	6	10%
8	Suppositories and pessaries: Definition, advantages and disadvantages, types of base, method of preparation, Displacement value and evaluation.	4	6.5%
9	Galenicals: Definition, equipment for different extraction processes like infusion, Decoction, Maceration and Percolation, methods of preparation of spirits, tinctures and extracts.	5	8.5%
10	Pharmaceutical calculations.	6	10%
11	Surgical aids: Surgical dressings, absorbable gelatin sponge, sutures, ligatures and medicated bandages.	3	5%

12	Incompatibilities: Introduction, classification and methods to overcome the incompatibilities.	6	10%
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Course Materials:

Text books

- Cooper and Gunns Dispensing for pharmacy students.
- A text book Professional Pharmacy by N.K.Jain and S.N.Sharma.

Reference books

- Introduction to Pharmaceutical dosage forms by Howard C. Ansel.
- Remington's Pharmaceutical Sciences.
- Register of General Pharmacy by Cooper and Gunn.
- General Pharmacy by M.L.Schroff.

Pharm.D. 1st year PHARMACEUTICS

Practical (3 Hours/ Week, 6 Credits, 90 Hours)

Sr. No.	Experiments
1	Syrups a. Simple Syrup I.P b. Syrup of Ephedrine Hcl NF c. Syrup Vasaka IP d. Syrup of ferrous Phosphate IP e. Orange Syrup
2	Elixir a. Piperizine citrate elixir BP b. Cascara elixir BPC c. Paracetamol elixir BPC
3	Linctus a. Simple Linctus BPC b. Pediatric simple Linctus BPC
4	Solutions a. Solution of cresol with soap IP b. Strong solution of ferric chloride BPC c. Aqueous Iodine Solution IP d. Strong solution of Iodine IP e. Strong solution of ammonium acetate IP 20
5	Liniments a. Liniment of turpentine IP* b. Liniment of camphor IP
6	Suspensions* a. Calamine lotion b. Magnesium Hydroxide mixture BP
7	Emulsions* a. Cod liver oil emulsion b. Liquid paraffin emulsion
8	Powders □ a. Eutectic powder b. Explosive powder c. Dusting powder d. Insufflations
9	Suppositories □ a. Boric acid suppositories b. Chloral suppositories
10	Incompatibilities a. Mixtures with Physical b. Chemical & Therapeutic incompatibilities

* colourless bottles required for dispensing

Paper envelope (white), butter paper and white paper required for dispensing.

Scheme of Practical Examination

	Internal/ Sessional	External
Synopsis	05	15
Major Experiment	10	25
Minor Experiment	03	15
Viva	02	15
Max. marks	20	70
Duration	3 hours	4 hours

Note: Total sessional marks is 30 (20 for practical sessional plus 10 marks for regularity, promptness, viva-voce and record maintenance)