MAA OMWATI INSTITUTE OF PHARMACY
DEPARTMENT OF PHARMACEUTICS
Course: Diploma in Pharmacy

LESSON PLAN

Faculty Name: Mr.Sunil **Subject: Pharmaceutics-I**
Class: D. Pharmacy – Ist Year **Subject Code: ER20-11T**

Scope:
This course is designed to impart knowledge on the medicinal uses of various drugs of natural origin. Also, the course emphasizes the fundamental concepts in the evaluation of crude drugs, alternative systems of medicine, nutraceuticals, and herbal cosmetics.

Course Objectives:
This course will discuss the following aspects of drug substances derived from natural resources.

1. Occurrence, distribution, isolation, identification tests of common phytoconstituents
2. Therapeutic activity and pharmaceutical applications of various natural drug substances and phytoconstituents
3. Biological source, chemical constituents of selected crude drugs and their therapeutic efficacy in common diseases and ailments
4. Basic concepts in quality control of crude drugs and various systems of medicines
5. Applications of herbs in health foods and cosmetics

Course Outcomes:
Upon successful completion of this course, the students will be able to

1. Identify the important/common crude drugs of natural origin
2. Describe the uses of herbs in nutraceuticals and cosmeceuticals
3. Discuss the principles of alternative system of medicines
4. Describe the importance of quality control of drugs of natural origin.

Number of Lectures: 75 **Each Lect. Time: 01 hour**

Lecture No	Particular	Remark/ Date
Unit -1:- Introduction (7 hrs)		
1	Definition, History	
2	Scope of Pharmacy, pharmacy practice	
3	Pharmacy education, industry	
4	Various professional associations	
5	Pharmacy as a career	

6	Introduction to IP, BP, USP Pharmacopoeia.	
7	Salient feature of Indian Pharmacopoeia.	
CLASS TEST		
Unit -2 Packaging Materials (5 hours)		
8	Types, selection criteria	
9	Advantages & disadvantages of Glass	
10	Advantages & disadvantages of plastic	
11	Advantages & disadvantages of metal	
12	Advantages & disadvantages of rubber	
Unit-3 Pharmaceutical Aids (3 hrs)		
13	Organoleptic (colouring, flavouring agents)	
14	Sweetening agents, preservatives	
15	Types and uses of preservatives	
Unit-4 Unit Operations (9 hrs)		
16	Size reduction, hammer mill and ball mill	
17	Size separation, powder classification Cyclone separator, Sieves	
18	Mixing- double cone blender, turbine mixer	
19	Triple roller mill, silverson homogenizer	
20	Filtration- Theory, membrane filter	
21	Drying- Fluidized bed dryer	
22	Drying- Freeze drying, Extraction introduction	
23	Extraction- classification & applications.	
Unit-5		
Tablets (6 hrs)		
24	Tablets- Introduction	
25	Types of tablets	
26	advantages & disadvantages	
27	Coated and uncoated tablets	
28	Sustained release tablets	
29	Extended release tablets	
30	Fast dissolving tablets	
31	Double layered tablets	
Capsules (4 hrs)		
32	Capsules Introduction	
33	Types of capsules	
34	Hard gelatin capsules	
35	Soft gelatin capsules	
Liquid Oral Preparations (6 hrs)		
36	Solutions	
37	Syrups	
38	Elixir	
39	Emulsion	
40	Suspension	
41	Dry powder for reconstitution	
Topical Preparations (8 hrs)		

42	Ointments	
43	Creams	
44	Pastes	
45	Gels	
46	Liniments	
47	Lotions	
48	Suppository	
49	Pessaries	
Nasal Preparations (2 hrs)		
50	Nasal drops	
51	Ear preparations	
Powders & Granules (3 hrs)		
52	Insufflations	
53	Dusting powder	
54	Effervescent powders & granules	
Sterile Formulations (6 hrs)		
55	Injectables, classification	
56	Formulation of injectables	
57	Small volume parenterals	
58	Large volume parenterals	
59	Eye drops	
60	Eye Ointments	
Class Test		
Immunological Products (4 hrs)		
61	Sera	
62	Vaccines	
63	Toxoids	
64	Manufacturing methods	
Unit 6 Basic structure Layout, Sections and activities of pharmaceutical manufacturing plant (5hrs)		
65	Basic structure, layout, sections of plant	
66	Quality control, its steps and techniques	
67	Quality Assurance, Functions, Types	
68	GMP, Calibration concept	
69	Validation and its types	
Unit 7 Novel Drug Delivery System (5 hrs)		
70	Introduction and classification of NDDS	
71	Detailed study of classification	
72	IDDS, GRDDS	
73	NPDDS	
74	Target Drug Delivery, ODDS	
75	Advantages and Challenges	

Teacher In-charge **Academic In-charge** **Principal**

Lesson plan

Name of the Faculty : Mr. Jagdish
Year : D-Pharma 1st year
Subject : Pharmaceutical Chemistry

Lesson Plan Duration: 25 weeks (2025-2026)

Week	Theory		Practical	
	Lecture Day		Practical day	Topic
1st	1	Introduction to Pharmaceutical chemistry	1	To study the instruments and glasswares used in Pharmaceutical Chemistry Lab
	2	Sources and types of errors		
	3	Impurities in Pharmaceuticals		
2nd	4	Volumetric analysis	2	To prepare and standardize 1 M sodium hydroxide (NaOH) solution
	5	Complexometric titration, redox titration		
	6	Test		
3rd	7	Gravimetric analysis	3	To prepare and standardize 1 M hydrochloric acid (HCl) solution.
	8	Introduction of Inorganic Pharmaceuticals		
	9	Haematinics		
4th	10	Gastro-intestinal Agents	4	To prepare and standardize 0.1 N potassium permanganate ($KMnO_4$) solution
	11	Topical agents		
	12	Dental products		
5th	13	Medicinal gases	5	To prepare and standardize 0.05 M disodium edetate (EDTA) solution
	14	Test		

	15	Introduction to nomenclature of organic chemical systems with particular reference to heterocyclic compounds containing up to Three rings		
6th	16	Introduction of Drugs Acting on Central Nervous System	6	To prepare and standardize 0.1 M silver nitrate (AgNO3) solution.
	17	Anaesthetics		
	18	Sedatives and Hypnotics	7	To perform the assay of boric acid as per I.P.
7th	19	Antipsychotics		
	20	Anticonvulsants		
	21	Anti-Depressants		
8th	22	Test and revision	8	To perform the assay of sodium carbonate as per I.P.
	23	Introduction of Drugs Acting on Autonomic Nervous System		
	24	Sympathomimetic Agents		
9th	25	Adrenergic Antagonists	9	To perform the assay of sodium carbonate.
	26	Sympathomimetic Antagonists revision		
	27	Test		
10th	28	Cholinergic Drugs and Related Agents	10	To perform the assay of sodium bicarbonate as per I.P
	29	Cholinergic Drugs and Related Agents		
	30	Test		
11th	31	Cholinergic Blocking Agents	11	To perform the assay of ferrous sulphate.
	32	Synthetic Cholinergic Blocking Agents		
	33	Test		
12th	34	Anti-Arrhythmic Drugs	12	To perform the assay of ferrous ammonium sulphate
	35	Anti-Hypertensive Agents		
	36	Anti-Hypertensive Agents		
13th	37	Antianginal Agents basics	13	To perform the assay of Mohr's salt.
	38	Antianginal Agents		
	39	Revision		
14th	40	Tsest	14	To perform the assay of calcium gluconate as per I.P.
	41	Diuretics basics		
	42	Diuretics drugs		

15th	43	Test	15	To perform the limit test for chlorides in the given sample (magnesium sulphate).
	44	Insulin and Its Preparations		
	45	Hypoglycemic drugs		
16th	46	Test and revision	16	To perform the limit test for sulphates in the given sample (sodium bicarbonate).
		Analgesic And Anti-Inflammatory Agents		
		Nonsteroidal AntiInflammatory Agents (NSAIDs)		
		Revision and test		
		Introduction of Anti-Infective Agents		
		Fungus basics		
	47	Antifungal Agents		
	48	UTI basics		
17th	49	Urinary Tract Anti-Infective Agents	17	To perform the limit test for iron in the given sample (sodium chloride).
	50	Urinary Tract Anti-Infective Agents revision		
	51	Test		
18th	52	Anti-Tubercular Agents	18	To perform the limit test for heavy metals in the given sample (sodium chloride).
	53	Revision and test		
	54	Antiviral Agents		
19th	55	Antiviral Agents revision	19	To perform the limit test for arsenic in the given sample (ammonium chloride).
	56	Malaria baics		
	57	Antimalarials		
20th	58	Test	20	To perform modified limit test for chloride.
	59	Sulfonamides		
	60	Introduction of Antibiotics		
21st	61	Tetracyclines	21	To perform the identification test for magnesiu hydroxide.
	62	Macrolides		
	63	Miscellaneous drugs		
22nd	64	Revision	22	To perform thr identification test for copper sulphate.

	65	Test		
	66	Anti-Neoplastic Agents		
23rd	67	Antimetabolites Anti-Neoplastic Agents	23	To check to acid-neutrilizing capacity of aluminium hydroxide gel.
	68	Vinblastine Sulphate, Cisplatin, Dromostanolone Propionate		
	69	Revision		
24th	70	Test	24	To prepare and submit boric acid.
	71	Assignment		
	72	Assignment		
25th	73	Revision	25	To prepare and submit ferrous sulphate from iron.
	74	Assignment		Viva voice
	75	Revision		

MAA OMWATI INSTITUTE OF PHARMACY

DEPARTMENT OF PHARMACOLOGY

Course: Diploma in Pharmacy

LESSON PLAN

Faculty Name: Mr.Ankit **Subject:** PHARMACOGNOSY – THEORY

Class: D. Pharmacy – 1st Year **Subject Code:** ER20-13T

Scope: This course is designed to impart knowledge on the medicinal uses of various drugs of natural origin. Also, the course emphasizes the fundamental concepts in the evaluation of crude drugs, alternative systems of medicine, nutraceuticals, and herbal cosmetics.

Course Objectives: This course will discuss the following aspects of drug substances derived from natural resources.

1. Occurrence, distribution, isolation, identification tests of common phytoconstituents

2. Therapeutic activity and pharmaceutical applications of various natural drug substances and phytoconstituents

3. Biological source, chemical constituents of selected crude drugs and their therapeutic efficacy in common diseases and ailments

4. Basic concepts in quality control of crude drugs and various system of medicines

5. Applications of herbs in health foods an

Course Outcomes: Upon successful completion of this course, the students will be able to

1. Identify the important/common crude drugs of natural origin

2. Describe the uses of herbs in nutraceuticals and cosmeceuticals

3. Discuss the principles of alternative system of medicines

4. Describe the importance of quality control of drugs of natural origin

Lecture No	**Particular**	**Remark/ Date**
Unit -1:- Introduction		
1	Definition, history, present status of Pharmacognosy	
2	scope of Pharmacognosy	
Unit :- 2:- Classification of drugs		
3	Alphabetical and Taxonomical	
4	Morphological and Pharmacological	
5	Chemical Classification	
6	Chemo-taxonomical Classification	
Unit 3:- Quality Control of Crude Drugs		
7	Introduction to Adulteration	
8	Different Methods of Adulterations	
9	Types of Adulterants and effects on drug quality	
10	Evaluation of Crude drugs	
11	Evaluation of crude drugs	
12	Assignment and Class test	
Unit 4 : - Brief outline of occurrence, distribution, isolation, identification tests		
13	Alkaloids types and classification	
14	Isolation and identification of Alkaloids.	
15	Terpenoids types and classification	
16	Glycosides types and classification and Properties	
17	volatile oils, tannins	
18	resins. And its properties .	
Unit 5: - Biological source, chemical constituents and therapeutic efficacy of the following categories of crude drugs.		

19	Biological source, chemical constituents and therapeutic efficacy of the Laxatives Aloe, Castor oil, Ispaghula, Senna	
20	Biological source, chemical constituents and therapeutic efficacy of the Cardiotonic Digitalis, Arjuna	
21	Biological source, chemical constituents and therapeutic efficacy of the Carminatives and G.I. regulators Coriander, Fennel, Cardamom, Ginger, Clove	
22	TEST	
23	Biological source, chemical constituents and therapeutic efficacy of the Carminatives and G.I. regulators Black Pepper, Asafoetida, Nutmeg, Cinnamon	
24	Biological source, chemical constituents and therapeutic efficacy of the Astringents Myrobalan, Black Catechu, Pale Catechu	
25	Biological source, chemical constituents and therapeutic efficacy of the Drugs acting on nervous system Hyoscyamus, Belladonna, Ephedra, Opium	
26	TEST	
27	Biological source, chemical constituents and therapeutic efficacy of the Drugs acting on nervous system Tea leaves, Coffee seeds, Coca	
28	Biological source, chemical constituents and therapeutic efficacy of the Anti-hypertensive Rauwolfia	
29	Biological source, chemical constituents and therapeutic efficacy of the Anti-tussive Vasaka, Tolu Balsam	
30	TEST	
31	Biological source, chemical constituents and therapeutic efficacy of the Anti-rheumatics Colchicum seed	
32	Biological source, chemical constituents and therapeutic efficacy of the Anti-tumour Vinca, Podophyllum	
33	Biological source, chemical constituents and therapeutic efficacy of the Antidiabetics Pterocarpus, Gymnema	
34	**TEST**	
35	Biological source, chemical constituents and therapeutic efficacy of the Diuretics Gokhru, Punarnava	
36	Biological source, chemical constituents and therapeutic efficacy	

	of the Anti-dysenteric Ipecacuanha	
37	Biological source, chemical constituents and therapeutic efficacy of the Antiseptics and disinfectants Benzoin, Myrrh, Neem, Turmeric	
38	Test	
39	Biological source, chemical constituents and therapeutic efficacy of the Antimalarials Cinchona, Artemisia	
40	Biological source, chemical constituents and therapeutic efficacy of the Oxytocic Ergot Vitamins Cod liver oil, Shark liver oil	
41	Biological source, chemical constituents and therapeutic efficacy of the Enzymes Papaya, Diastase, Pancreatin, Yeast	
42	Biological source, chemical constituents and therapeutic efficacy of the Pharmaceutical Aids Kaolin, Lanolin, Beeswax, Acacia, Tragacanth, Sodium alginate, Agar, Guar gum, Gelatine	
43	Biological source, chemical constituents and therapeutic efficacy of the	
44	Biological source, chemical constituents and therapeutic efficacy of the Miscellaneous Squill, Galls, Ashwagandha, Tulsi, Guggu	
45	Test	
UNIT:-6:-Plant fibres used as surgical dressings		
46	Plant fibres used as surgical dressings: Cotton, silk, wool and regenerated fibres Sutures –	
47	Plant fibres used as surgical dressings:– Surgical Catgut and Ligatures	
UNIT:- 7:- Basic principles involved in the traditional systems of medicine		
48	Basic principles involved in the traditional systems of medicine like: Ayurveda, Siddha, Unani and Homeopathy	
49	Method of preparation of Ayurvedic formulations like: Arista, Asava.	
50	Method of preparation of Ayurvedic formulations like: Gutika, Taila,	
51	Method of preparation of Ayurvedic formulations like: Lehya and Bhasma	
52	Assignments	
UNIT:- 8:- **Role of medicinal and aromatic plants in national economy and their export potential**		
53	Role of medicinal and aromatic plants in national economy and their export potential	
54	Test	
UNIT:- 9:-Herbs as health food:		
55	Herbs as health food: Brief introduction and therapeutic applications of: Nutraceuticals	

56	Herbs as health food: Brief introduction and therapeutic applications of: Antioxidants	
57	Herbs as health food: Brief introduction and therapeutic applications of: Pro-biotics	
58	Assignment	
59	Herbs as health food: Brief introduction and therapeutic applications of: Dietary fibres, Omega-3-fatty acids.	
60	Herbs as health food: Brief introduction and therapeutic applications of Spirulina, Carotenoids.	
61	Herbs as health food: Brief introduction and therapeutic applications of: Soya and Garlic	
62	Assignment and test	
UNIT:- 10& 11:- Introduction to herbal formulations		
63	Introduction to herbal formulations	
64	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Aloe vera gel	
65	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Almond oil	
66	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Lavender oil	
67	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Olive oil	
68	Assignment and test	
69	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Rosemary oil	
70	Herbal cosmetics: Sources, chemical constituents, commercial preparations, therapeutic and cosmetic uses of: Sandal Wood oil	
71	Assignment and test	
UNIT:- 12:- Phytochemical investigation of drugs		
72	Phytochemical investigation of drugs	
73	Phytochemical investigation of drugs	
74	Phytochemical investigation of drugs	
75	Assignment	
76	Revision	

Teacher In-charge **Academic In-charge** **Principal**

MAA OMWATI INSTITUTE OF PHARMACY
DEPARTMENT OF PHARMACOLOGY
Course: Diploma in Pharmacy

LESSON PLAN

Faculty Name: Ms. Sandhya verma **Subject: Human Anatomy and Physiology**

Class: D. Pharmacy – 1st Year **Subject Code: ER20-14T**

Scope: This course is designed to impart basic knowledge on the structure and functions of the human body. It helps in understanding both homeostasis mechanisms and homeostatic imbalances of various systems of the human body.

Course Objectives: This course will discuss the following:

1. Structure and functions of the various organ systems and organs of the human body
2. Homeostatic mechanisms and their imbalances in the human body
3. Various vital physiological parameters of the human body and their significances

Course Outcomes: Upon successful completion of this course, the students will be able to

1. Describe the various organ systems of the human body
2. Discuss the anatomical features of the important human organs and tissues
3. Explain the homeostatic mechanisms regulating the normal physiology in the human system
4. Discuss the significance of various vital physiological parameters of the human body

Number of Lectures: 75 **Each Lect. Time : 01 hour**

Lecture No	Particular	Remark/ Date
Unit -1:- Introduction (2 hrs)		
1	Scope of Anatomy and Physiology	
2	Definition of various terminologies	
Unit -2:- Structure of Cell: (2 hrs)		
3	Introduction to cell structure	
4	Components and its functions	

	CLASS TEST	
Unit -3 :- Tissues of the human body: (4hrs)		
5	Tissues of the human body: Epithelial their sub-types and characteristics.	
6	Tissues of the human body: Connective- their sub-types and characteristics.	
7	Tissues of the human body: Muscular– their sub-types and characteristics.	
8	Tissues of the human body: Nervous tissues – their sub-types and characteristics.	
	CLASS TEST	
Unit - 4:- Osseous system: (3 hrs)		
9	Structure and functions of bones of axial skeleton	
10	Structure and functions of bones of appendicular skeleton	
11	Classification, types and movements of joints, disorders of joints	
	CLASS TEST	
Unit - 5:- Haemopoietic system (8 hrs)		
12	Composition and functions of blood	
13	Process of Hemopoiesis	
14	Characteristics and functions of RBCs.	
15	Characteristics and functions of WBCs.	
16	Characteristics and functions of platelets	
17	Mechanism of Blood Clotting	
18	Introduction of Blood groups	
19	Importance of Blood groups	
	CLASS TEST	
Unit - 6:- Lymphatic system (3 hrs)		
20	Lymph and lymphatic system, composition, function and its formation.	
21	Structure and functions of spleen.	
22	Structure and functions of lymph node.	
	CLASS TEST	
Unit – 7:- Cardiovascular system (8 hrs)		
23	Anatomy and Physiology of heart	
24	Blood vessels	
25	Pulmonary circulation	
26	Coronary circulation	
27	systemic circulation	
28	Cardiac cycle and Heart sounds,	

29	Basics of ECG	
30	Blood pressure and its regulation	
	CLASS TEST	
Unit – 8:- Respiratory system (4 hrs)		
31	Anatomy of respiratory organs and their functions.	
32	Anatomy of respiratory organs and their functions.	
33	Mechanism of respiration.	
34	Respiratory volumes and capacities – definitions	
	CLASS TEST	
Unit – 9:- Digestive system (8 hrs)		
35	Anatomy of the GIT	
36	Anatomy of the GIT	
37	Physiology of the GIT	
38	Physiology of the GIT	
39	Anatomy accessory glands	
40	Functions of accessory glands	
41	Physiology of digestion	
44	Physiology of absorption	
	CLASS TEST	
Unit – 10 :- Skeletal muscles (2 hrs)		
45	Histology	
46	Physiology of muscle contraction Disorder of skeletal muscles	
	CLASS TEST	
Unit – 11:- Nervous system (8 hrs)		
47	Classification of nervous system	
48	Anatomy and physiology of cerebrum,	
49	Anatomy and physiology of cerebellum, mid brain	
50	Function of hypothalamus, medulla oblongata and basal ganglia	
51	Spinal cord-structure and reflexes	
52	Names and functions of cranial nerves	
53	Anatomy and physiology of sympathetic nervous system (ANS)	
54	Anatomy and physiology of parasympathetic nervous system (ANS)	
	CLASS TEST	
Unit – 12:- Sense organs (5 hrs)		
56	Anatomy and physiology of Ear	
57	Anatomy and physiology of Eye	
58	Anatomy and physiology of Eye	
59	Anatomy and physiology of Skin	
60	Anatomy and physiology of tongue	
61	Anatomy and physiology of Nose	

	CLASS TEST	
Unit – 13 :- Urinary system (4 hrs)		
62	Anatomy and physiology of urinary system	
63	Physiology of urine formation	
64	Renin - angiotensin system	
65	Clearance tests and micturition	
	CLASS TEST	
Unit – 14 :- Endocrine system (Hormones and their functions) (6 hrs)		
66	Pituitary gland	
67	Adrenal gland	
68	Thyroid gland	
69	parathyroid gland	
70	Pancreas	
71	Gonads	
	CLASS TEST	
Unit – 15 Reproductive system (4 hrs)		
72	Anatomy of male and female reproductive system	
73	Physiology of menstruation	
74	Spermatogenesis and Oogenesis	
75	Pregnancy and parturition	

Teacher In-charge **Academic In-charge** **Principal**

MAA OMWATI
INSTITUTE OF PHARMACY
Lesson Plan
Subject: Social Pharmacy
Total Time: 75 Hrs

Faculty name: Ms. Jyoti **Subject code:ER20-15T**

Chapter	Topic	Hours	Date
	Unit 1		
Lecture 1	Definition & Scope of Social Pharmacy as a discipline and its Scope in improving the public health	**9**	
Lecture 2	Role of pharmacist in Public health. Concept of health		
Lecture 3	Definition, Various Dimensions, Determinants and health indicators		
Lecture 4	National Health policy – Indian perspective		
Lecture 5	Public and Private Health Systems in India.		
Lecture 6	National Health Mission		
Lecture 7	Introduction to Millenium Development Goals		
Lecture 8	Introduction to Sustainable Development Goals		
Lecture 9	Introduction to FIP Development Goals		
Lecture 10	Assignment		
Lecture 11	Test		
	Unit 2		
Lecture 1	Demography and Family Planning	**18**	
Lecture 2	Demography and Family Planning		
Lecture 3	Demography and Family Planning		
Lecture 4	Mother and Child Health		
Lecture 5	Importance of Breast feeding, ill effects of Infants Milk Substitutes and Bottle feeding		
Lecture 6	Overview of Vaccines		
Lecture 7	Immunity and Terms used		
Lecture 8	Types of Immunity		
Lecture 9	Types of Immunization		
Lecture 10	Effect of Environment on Health		
Lecture 11	Water Pollution, importance of Safe Drinking water		
Lecture 12	Water Borne Disease		
Lecture 13	Air Pollution, Noise Pollution		
Lecture 14	Sewage and Solid Waste Disposal		
Lecture 15	Occupational Illness		
Lecture 16	Environmental pollution due to Pharmaceuticals.		
Lecture 17	Psychosocial Pharmacy: drugs of Misuse and abuse Psychotropic, Narcotics, Alcohol, Tabaco Products.		
Lecture 18	Social Impacts of these Habits on Social Health and Productivity and suicidal behavior.		
Lecture 19	Assignment		
Lecture 20	Test		
	Unit 3		
Lecture 1	Basics of Nutrition	**10**	
Lecture 2	Macronutrients		
Lecture 3	Micronutrients		
Lecture 4	Importance of Water and Fibers In diet		
Lecture 5	Balanced diet, Malnutrition and Nutritioin deficiency diseases.		
Lecture 6	Ill effects of junk food, calorific and Nutritive values of various foods.		
Lecture 7	Fortification of Food		
Lecture 8	Introduction to food safety, adulteration of food, effects of artificial ripening, use of pesticides,		
Lecture 9	Dietary supplements, Nutraceuticals, food supplements – indications, benefits		
Lecture 10	Drug-Food Interactions		

Lecture 11	Assignment		
Lecture 12	Test		

Lesson Plan
Subject: Social Pharmacy
Total Time: 75 Hrs

Unit 4			
Lecture 1	Introduction to Microbiology and common microorganisms	**28**	
Lecture 2	Introduction to Microbiology and common microorganisms		
Lecture 3	Introduction to Microbiology and common microorganisms		
Lecture 4	Epidemiology: Introduction to epidemiology, and its applications. Understanding of terms such as epidemic, pandemic, endemic, mode of transmission,		
Lecture 5	Epidemiology: Outbreak, quarantine, isolation, incubation period, contact tracing, morbidity, mortality.		
Lecture 6	Respiratory infections – rubella, mumps, diphtheria		
Lecture 7	Respiratory infections- Ebola		
Lecture 8	Respiratory infections- chickenpox, measles		
Lecture 9	Respiratory infections- influenza (including Avian-Flu, H1N1, SARS, MERS, COVID-19)		
Lecture 10	Respiratory infections- Whooping cough		
Lecture 11	Respiratory infections- meningococcal meningitis		
Lecture 12	Respiratory infections- Acute respiratory infections, tuberculosis		
Lecture 13	Intestinal infections-cholera, acute diarrheal diseases		
Lecture 14	Intestinal infections- worm infestations		
Lecture 15	Intestinal infections- poliomyelitis		
Lecture 16	Intestinal infections- viral hepatitis		
Lecture 17	Intestinal infections- Amebiasis		
Lecture 18	Intestinal infections- typhoid		
Lecture 19	Intestinal infections- Food poisoning		
Lecture 20	Arthropod-borne infections - dengue		
Lecture 21	Arthropod-borne infections- malaria		
Lecture 22	Arthropod-borne infections- Filariasis		
Lecture 23	Arthropod-borne infections- chikungunya		
Lecture 24	Surface infections – trachoma, tetanus		
Lecture 25	Surface infections- leprosy		
Lecture 26	Introduction to STDs		
Lecture 27	Mechanism of Action of HIV Virus		
Lecture 28	AIDS		
Lecture 29	Assignment		
Lecture 30	Test		
Unit 5			
Lecture 1	Introduction to health systems	**08**	
Lecture 2	All ongoing National Health programs in India		
Lecture 3	Objectives of National Health programs		
Lecture 4	functioning of National Health programs		
Lecture 5	Outcomes of National Health programs		
Lecture 6	Role of pharmacists		
Lecture 7	NTCP		
Lecture 8	National Programe for prevention and control of cancer & Diabeties		
Lecture 9	Assignment		
Lecture 10	Test		
Unit 6			
Lecture 1	**Pharmacoeconomics – Introduction, basic terminologies**	**02**	
Lecture 2	Pharmacoeconomics- Importance of Pharmacoeconomics		
Lecture 3	Assignment		
Lecture 4	Test		