

**JSS Academy of Higher Education & Research, Mysore**  
(Deemed to be University - Accredited 'A' Grade by NAAC)



**JSS College of Pharmacy, Rocklands, Ooty**  
(An ISO 9001:2015 Certified Institution)



# Academic Plan

(Academic Year: 2019-2020)

**Course: II PHARM.D.**

## LECTURE PLAN

<b>Name of the Subject</b>	Pathophysiology (Theory)
<b>Name of the Faculty</b>	Dr. M.Deepalakshmi
<b>Designation, Department</b>	Lecturer, Department of Pharmacy Practice
<b>Mobile Number</b>	9994974663
<b>e-Mail i.d.</b>	deepapharmacy@jssuni.edu.in

### LECTURE PLAN - Theory

Sessional	Number of Hours of Didactic Lecture	No. of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	25	09	34	11
<b>II</b>	25	01	26	08
<b>III</b>	25	05	28	07
<b>Total Number of Lecture Hours</b>	75	15	85	25

#### I SESSIONAL: 25 Lectures + 09 Activities

Lecture No.	Date	Lecture Details
<b>Unit-1: Basic principles of cell injury &amp; adaptation</b>		<b>05hours</b>
Activity-1	19.06.2019	Orientation of the subject
1.	20.06.2019	Introduction, Definitions, Homeostasis, Components and Types of Feedback Systems
2.	21.06.2019	Regulation of Metabolism, Regulation of Cell Volume, Etiology of Cell Injury, Pathogenesis of Cell Injury
Tutorial-1	21.06.2019	-
3.	26.06.2019	Morphology of cell injury – Adaptive changes
4.	27.06.2019	Cell swelling, Intra cellular accumulation, Calcification, Enzyme leakage, Cell Death (Necrosis and Apoptosis)
5.	28.06.2019	Abnormalities in Lipoproteinaemia, Glycogen Infiltration and Glycogen Storage Diseases
Tutorial- 2	28.06.2019	-
<b>Unit- 2:Pathophysiology of common diseases</b>		<b>10 hours</b>
1.	03.07.2019	Introduction, Definition, Classification, Physiological Maintenance of Blood Pressure

2.	04.07.2019	Pathophysiology of Hypertension
3.	05.07.2019	Introduction, Etiology of Atherosclerosis
Tutorial -3	05.07.2019	-
4.	10.07.2019	Introduction, Definition, Classification and Pathophysiology of Angina
5.	11.07.2019	Introduction, Types of Acute Myocardial Infarction, Morphology of Acute Myocardial Infarction
6.	12.07.2019	Pathogenesis of Myocardial Infarction
Tutorial -4	12.07.2019	-
7.	17.07.2019	Introduction, Heart Rate, Stroke Volume (Contractility, Pre – Load, After – Load), Etiology and Classification of Heart Failure
Activity -2	18.07.2019	Group Discussion/Test
8.	19.07.2019	Pathophysiology of CCF (Compensatory Mechanisms
Tutorial -5	19.07.2019	-
9	24.07.2019	Pathophysiology of CCF (Compensatory Mechanisms
Activity -3	25.07.2019	Group Discussion/Test
10.	26.07.2019	Introduction, Classification of Diabetes Mellitus, Pathophysiology of Type 1 Diabetes Mellitus
Tutorial- 6	26.07.2019	-
Activity -4	31.07.2019	Group Discussion/Test
Activity-5	01.08.2019	Quiz
<b>Unit-3: Inflammation</b>		<b>05 hours</b>
1.	02.08.2019	Introduction, Clinical Signs of Inflammation, Different Types of Inflammation, Types of Chronic Inflammation
Tutorial –7	02.08.2019	-
Activity- 6	07.08.2019	Group Discussion/Test
2.	08.08.2019	Chemical Mediators in inflammation
Activity- 7	09.08.2019	Group Discussion/Test
Tutorial –8	09.08.2019	-
3.	14.08.2019	Pathogenesis of Chronic Inflammation
Activity-8	16.08.2019	Group Discussion
Tutorial –9	16.08.2019	-
4.	21.08.2019	Repairs of Wounds in the Skin
5.	22.08.2019	Factors Influencing Healing of Wounds
<b>Unit:4 Pathophysiology of common diseases</b>		<b>05 hours</b>
1.	28.08.2019	Pathophysiology of ischemic stroke
2.	30.08.2019	Pathophysiology of Hemorrhagic stroke
Tutorial –10	30.08.2019	-

3.	04.09.2019	Pathophysiology of depression & Mania
4.	05.09.2019	Pathophysiology of Parkinsonism
5.	06.09.2019	Pathophysiology of schizophrenia
Tutorial –11	06.09.2019	-
Activity-9	11.09.2019	Group Discussion/Test

## II SESSIONAL: 25 Lectures + 01Activity

Lecture No.	Date	Lecture Details
<b>Unit-6: Diseases of immunity</b>		<b>10 hours</b>
1.	20.09.2019	Introduction to T and B Cells
Tutorial –1	20.09.2019	-
2.	26.09.2019	MHC Proteins or Transplantation Antigens, Immune tolerance
3.	27.09.2019	Allergy due to Food, Chemicals and Drugs
Tutorial –2	27.09.2019	-
4.	03.10.2019	Hypersensitivity ,Autoimmunity, Criteria for Autoimmunity
5.	04.10.2019	Classifications of Autoimmune Diseases in Man
Tutorial –3	04.10.2019	-
6.	09.10.2019	Mechanism of Autoimmunity, Transplantation and Immunologic Tolerance
7.	10.10.2019	Allograft Rejections, Transplantation Antigens
8.	11.10.2019	Mechanism of Rejection of Allograft
Tutorial -4	11.10.2019	-
9.	16.10.2019	Acquired Immune Deficiency Syndrome (AIDS)
	17.10.2019	
10.	18.10.2019	Amylodosis
Tutorial -5	18.10.2019	-
<b>Unit-7: Pathophysiology of common Diseases</b>		<b>13 hours</b>
1.	23.10.2019	Introduction, Aggravating Causes of & Defense Mechanism against Peptic Ulcer
2.	24.10.2019	Pathophysiology of Peptic Ulcer
3.	25.10.2019	Introduction, Pathophysiology of Inflammatory Bowel Disease
Tutorial -4	25.10.2019	-
4.	30.10.2019	Introduction to Liver Diseases
5.	31.10.2019	Pathophysiology of Cirrhosis
6.	01.11.2019	Pathophysiology of Alcoholic Liver Disease
Tutorial -6	01.11.2019	-
7.	06.11.2019	Introduction and classification of Acute Renal Failure

8.	07.11.2019	Pathophysiology of Acute Renal Failure
9.	08.11.2019	Pathophysiology of Chronic Renal Failure
Tutorial -7	08.11.2019	-
10.	13.11.2019	Introduction, Intrinsic Asthma, Exercise Induced Asthma
11	14.11.2019	Group Discussion/Test
12.	15.11.2019	Pathophysiology of Asthma
Tutorial – 7	15.11.2019	-
13.	20.11.2019	Introduction of COPD
14.	21.11.2019	Pathophysiology of Chronic Obstructive Airway Diseases
<b>Unit-8: Cancer</b>		<b>05hours</b>
1.	22.11.2019	Introduction, Differences between Benign and Malignant Tumors, Histological Diagnosis of Malignancy
Tutorial -8	22.11.2019	-
Activity-1	27.11.2019	Group Discussion/Test

### III SESSIONAL: 25 Lectures + 05 Activities

Lecture No.	Date	Lecture Details
1.	05.12.2019	Invasions and Metastasis, Patterns of Spread, Disturbances of Growth of Cells
2.	06.12.2019	Classification of Tumors, General Biology of Tumors
Tutorial -1	06.12.2019	-
Activity-1	13.12.2019	Group Discussion/Test
3.	18.12.2019	Spread of Malignant Tumors
4.	19.12.2019	Etiology and Pathogenesis of Cancer
<b>Unit-10: Shock</b>		<b>02hours</b>
1	20.12.2019	Types of Shock
Tutorial -2	20.12.2019	-
Activity-2	17.01.2020	Group Discussion/Test
2.	22.01.2020	Stages and Management of Shock
<b>Unit-11: Biological effects of radiation</b>		<b>02hours</b>
1.	23.01.2020	Introduction, Types of Radiations
2.	24.01.2020	Biological Effects of Radiation
Activity –3	24.01.2020	Group Discussion
<b>Unit-12: Environmental and nutritional diseases</b>		<b>04hours</b>
1.	29.01.2020	Air Pollution and Smoking – SO <sub>2</sub> , NO
2.	30.01.2020	Air Pollution and Smoking – NO <sub>2</sub> , CO
Activity-4	31.01.2020	Group Discussion/Test

Tutorial-3	31.01.2020	-
3.	05.02.2020	Protein Calorie Malnutrition, Vitamins
4.	06.02.2020	Obesity, Pathogenesis of Starvation
<b>Unit-13: Infectious diseases</b>		<b>13hours</b>
1.	12.02.2020	Sexually Transmitted Diseases – HIV
2.	13.02.2020	Sexually Transmitted Diseases – Syphilis
3.	14.02.2020	Sexually Transmitted Diseases – Gonorrhoea
Tutorial – 4	14.02.2020	-
Activity –5	19.02.2020	Group Discussion/Test
4.	20.02.2020	Urinary Tract Infections
5.	26.02.2020	Pneumonia
6.	27.02.2020	Typhoid
7.	28.02.2020	Tuberculosis
Tutorial – 5	28.02.2020	-
8.	04.03.2020	Tuberculosis
9.	05.03.2020	Leprosy
10.	06.03.2020	Malaria
Tutorial – 6	06.03.2020	-
11.	11.03.2020	Dysentery (Bacterial and Amoebic)
12.	12.03.2020	Dysentery (Bacterial and Amoebic)
13.	13.03.2020	Hepatitis- infective Hepatitis
Tutorial – 7	13.03.2020	-

### **Text books**

1. Pathophysiology- Concepts of Altered Health States- Carol Mattson Porth
2. Pathologic basis of disease by- Cotran, Kumar, Robbins
3. Text book of Pathology- Harsh Mohan
4. Text book of Pathology- Y.M. Bhide

### **Reference books (Theory)**

1. Clinical Pharmacy and Therapeutics; Fourth edition; Walker & Whittle sea, Churchill Livingstone publication
2. Principles of Pathophysiology- Lippincott Publisher

<b>Name of the Subject</b>	Pharmaceutical Microbiology (Theory)
<b>Name of the Faculty</b>	Dr. Ashish Wadhvani
<b>Designation, Department</b>	Assistant Professor & Head, Department of Pharmaceutical Biotechnology
<b>Mobile Number</b>	8903638815
<b>e-Mail i.d.</b>	<a href="mailto:dradwadhvani@jssuni.edu.in">dradwadhvani@jssuni.edu.in</a>

### LECTURE PLAN - Theory

Sessional	Number of Hours of Didactic Lecture	No. of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	30	05	35	10
<b>II</b>	24	01	25	09
<b>III</b>	22	05	27	09
<b>Total Number of Lecture Hours</b>	76	11	87	28

#### I SESSIONAL: 30 Lectures + 05 Activities

Lecture No.	Date	Lecture Details	
<b>Unit-1: Introduction to the Science of Microbiology</b>			<b>03 Hours</b>
1.	17.06.2019	Interaction and Introductory class	
2.	18.06.2019	Orientation on Microbiology World	
3.	19.06.2019	Introduction and Scope of Microbiology	
Tutorial – 1	20.06.2019	--	
<b>Unit-2: Morphology &amp; Physiology of Microorganisms</b>			<b>11 Hours</b>
1.	24.06.2019	Prokaryotes and Eukaryotes	
2.	25.06.2019	Classification of Microbes	
3.	26.06.2019	Morphology Bacteria	
Tutorial – 2	27.06.2019	Revision	
4.	01.07.2019	Fine Structure of Bacteria	
5.	02.07.2019	Cell Wall – Gram Positive & Gram Negative	
Activity – 1	03.07.2019	Class Test	
Tutorial – 3	04.07.2019	Revision	
6.	08.07.2019	Ribosome, Flagella, Spores	
7.	09.07.2019	Classification & Morphology of Fungi	
8.	10.07.2019	Fine Structure of Fungi	

Tutorial – 4	11.07.2019	Revision
9.	15.07.2019	Classification & Morphology of Virus
10.	16.07.2019	Fine Structure of Virus
Activity – 2	17.07.2019	Class Test
Tutorial – 5	18.07.2019	Revision
11.	22.07.2019	Rickettsiae & Spirochetes
<b>Unit-3: Growth &amp; Nutrition</b>		<b>07</b>
<b>Hours</b>		
1.	23.07.2019	Nutritional Requirements for Growth of Microorganism
2.	24.07.2019	Growth of Bacteria and Virus
Tutorial – 6	25.07.2019	Revision
3.	29.07.2019	Cultivation of Bacteria and Virus
4.	30.07.2019	Continue...
5.	31.07.2019	Cultural Media for Aerobic & Anaerobic Microorganism - Bacteria
Tutorial – 7	01.08.2019	Revision
6.	05.08.2019	Cultural Media for Aerobic & Anaerobic Microorganism – Fungi
7.	06.08.2019	Maintenance of Lab Culture
Activity – 3	07.08.2019	Class Test
Tutorial – 8	08.07.2019	Group Discussion
<b>Unit-4: Isolation and Identification of Bacteria</b>		<b>09 Hours</b>
1.	13.08.2019	Staining Techniques
2.	14.08.2019	Staining Techniques – Grams Staining
3.	19.08.2019	Acid fast staining, Capsule Staining etc
4.	20.08.2019	Biochemical Reactions
5.	21.08.2019	Continue...
Tutorial – 9	22.08.2019	Revision
6.	26.08.2019	IMVIC Test
7.	27.08.2019	Total and Viable counting Techniques.
8.	28.08.2019	Continue...
9.	03.09.2019	Group Discussion
Activity – 4	04.09.2019	Class Test
Tutorial – 10	05.09.2019	Revision
Activity – 5	09.09.2019	I Sessional Revision Class



## II SESSIONAL: 24 Lectures + 01 Activity

<b>Unit-5: Sterilization</b>			<b>07 Hours</b>
Activity – 1	23.09.2019	Discussion on I Sessional Question Paper	
1.	24.09.2019	Introduction to Sterilization	
Tutorial – 1	26.09.2019	Revision	
2.	30.09.2019	Different methods of sterilization	
3.	01.10.2019	Merits and Demerits of sterilization	
Tutorial – 2	03.10.2019	Revision	
4.	09.10.2019	Sterilization methods for pharmaceutical products	
Tutorial – 3	10.10.2019	Revision	
5.	14.10.2019	Sterility testing of different pharmaceutical preparations	
6.	15.10.2019	Continue...	
7.	16.10.2019	Validation of various sterilization techniques	
Tutorial – 4	17.10.2019	Revision	
<b>Unit-6: Disinfectants</b>			<b>06 Hours</b>
1.	21.10.2019	Introduction of Disinfectants – Antiseptics	
2.	22.10.2019	Fungicidal and Virucidal Agents	
3.	23.10.2019	Factors affecting the action of disinfectants	
Tutorial – 5	24.10.2019	Revision	
4.	29.10.2019	Mechanism of Action of disinfectants	
5.	30.10.2019	Evaluation of bactericidal bacteriostatics	
Tutorial – 6	31.10.2019	Revision	
6.	04.11.2019	Virucidal and preservatives in pharmaceutical preparations	
<b>Unit-7: Immunology</b>			<b>11 Hours</b>
1.	05.11.2019	Introduction to Immunology – Definition and Classification	
2.	06.11.2019	General Principles of natural immunity	
Tutorial – 7	07.11.2019	General Discussion	
3.	11.11.2019	Phagocytosis	
4.	12.11.2019	Acquired Immunity – Active and Passive	
5.	13.11.2019	Antigens and Chemical Nature of Antigens	
Tutorial – 8	14.11.2019	Revision	
6.	18.11.2019	Structure and formation of Antibodies	
7.	19.11.2019	Antigen Antibody reactions	
8.	20.11.2019	Bacterial Exotoxins and Endotoxins	
Tutorial – 9	21.11.2019	Revision	
9.	25.11.2019	Signification of Toxoids	

10.	26.11.2019	Immunization program
11.	27.11.2019	Importance of booster dose

### III SESSIONAL: 22 Lectures + 05 Activities

<b>Unit-08: Diagnostic Tests</b>		<b>06 Hours</b>
1.	16.12.2019	Schick's Test and ELISA Test
2.	17.12.2019	Western Blotting and Southern Blotting
3.	18.12.2019	PCR
Tutorial – 1	19.12.2019	Revision
4.	20.01.2020	Widal and QBC
5.	21.01.2020	Mantoux Peripheral Smear
6.	22.01.2020	Study of malaria Parasite
Tutorial – 2	23.01.2020	Revision
Activity – 1	27.01.2020	Class Test
<b>Unit – 09: Microbiological Assays</b>		<b>05 Hours</b>
1.	28.01.2020	Introduction to Microbial Culture Sensitivity testing
2.	29.01.2020	Principles and Methods of different microbiological assays
Tutorial - 3	30.01.2020	Revision
3.	03.02.2020	Penicillin and Streptomycin
4.	04.02.2020	Vitamin B2 and B12
5.	05.02.2020	Standardization of vaccines and sera
Tutorial – 4	06.02.2020	Class Test
<b>Unit-10: Study of Infectious Diseases</b>		<b>11 Hours</b>
1.	10.02.2020	Typhoid
2.	11.02.2020	Tuberculosis
3.	12.02.2020	Continue...
Tutorial – 5	13.02.2020	MCQ Test
4.	17.02.2020	Malaria
5.	18.02.2020	Cholera
6.	19.02.2020	Hepatitis
Tutorial – 6	20.02.2020	Revision
7.	24.02.2020	Continue...
Activity – 2	25.02.2020	Group Discussion / Presentation by students
Activity – 3	26.02.2020	Group Discussion / Presentation by students
Tutorial – 7	27.03.2020	Revision
8.	02.03.2020	Meningitis
9.	03.03.2020	Syphillis & Gonorrhoea

10.	04.03.2020	HIV
Tutorial – 8	05.03.2020	Test
11.	09.03.2020	Life cycle of HIV
Activity – 4	10.03.2020	Revision of III Sessional
Activity - 5	11.03.2020	Final Exam Discussion
Tutorial – 9	12.03.2020	Final Exam Discussion

**Text books (Theory) - Refer the latest versions of the books**

- a) Vanitha Kale and Kishor Bhusari “Applied Microbiology” Himalaya Publishing house Mumbai.
- b) Mary Louis Turgeon “Immunology and Serology in Laboratory Medicines” 2nd edition, 1996 Mosby- Year book inc St. Louis Missouri.
- c) Harsh Mohan, “Text book of Pathology” 3rd edition, 1998, B-3 Ansari road Daryaganj N. Delhi.

**Reference books (Theory) – Refer the latest versions of the books**

- a) Prescott L.M., Jarley G.P Klein D.A “Microbiology” 2nd- edition Mc Graw Hill Company Inc.
- b) Rawlins E.A. “Bentley’s Text Book of Pharmaceutics” Bailliere Tindals 24-28 London 1988.
- c) Forbisher “Fundamentals of Microbiology” Philadelphia W.B. Saunders.
- d) Prescott L.M. Jarley G.P., Klein D.A. “Microbiology.” 2nd edition WMC Brown Publishers, Oxford. 1993.
- e) War Roitt, Jonathan Brostoff, David male, “Immunology”3rd edition 1996, Mosby-year book Europe Ltd, London.
- f) Pharmacopoeia of India, Govt. of India, 2018.

<b>Name of the Subject</b>	Pharmaceutical Microbiology (Practical)
<b>Name of the Faculty</b>	Dr. Ashish Wadhvani
<b>Designation, Department</b>	Assistant Professor & Head, Department of Pharmaceutical Biotechnology
<b>Mobile Number</b>	8903638815
<b>e-Mail i.d.</b>	<a href="mailto:dradwadhvani@jssuni.edu.in">dradwadhvani@jssuni.edu.in</a>

### LECTURE PLAN – Practicals

Sessional	Number of Practical (Mention the Highest Number Amongst Various Batches)	Total Number of Practical Hours (Number of Practical X 3)
<b>I</b>	11	33
<b>II</b>	09	27
<b>III</b>	07	21
<b>Total Number of Practical/Hours</b>	27	81

#### I SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Introduction to Microbiology	18.06.2019	17.06.2019
2.	Study of Apparatus used in Experimental Microbiology*	25.06.2019	24.06.2019
3.	Sterilization of Glass ware's	02.07.2019	01.07.2019
4.	Sterilization of Media*	09.07.2019	08.07.2019
5.	Revision Class/Record Work	16.07.2019	15.07.2019
6.	Preparation of Media	23.07.2019	22.07.2019
7.	Precaution & Handling of Microorganisms	30.07.2019	29.07.2019
8.	Introduction to Staining Techniques**	06.08.2019	05.08.2019
9.	Simple and Negative Staining**	13.08.2019	19.08.2019
10.	Gram's Staining**	20.08.2019	26.08.2019
11.	Revision Class/Record Work	27.08.2019	09.08.2019
12.	<b>FIRST SESSIONAL EXAMINATION</b>	17.09.2019	16.09.2019

#### II SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Discussion on First Sessional Examination	24.09.2019	23.09.2019
2.	Study and understanding the motility characters of	01.10.2019	30.09.2019

	Bacteria*		
3.	Hanging Drop Method*	15.10.2019	14.10.2019
4.	Enumeration of Microorganisms (Total and Viable) *	22.10.2019	21.10.2019
5.	Isolation of microorganism by Pure culture technique*	29.10.2019	04.11.2019
6.	Biochemical testing – IMVIC test*	05.11.2019	11.11.2019
7.	Cultural sensitivity testing of microorganism*	12.11.2019	18.11.2019
8.	Revision Class	19.11.2019	25.11.2019
9.	Record Correction and Discussion on experiments	26.12.2019	-
10.	<b>SECOND SESSIONAL EXAMINATION</b>	03.12.2019	02.12.2019

### III SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Sterility testing for pharmaceutical products*	21.01.2020	20.01.2020
2.	Determination of Minimum inhibitory concentration*	28.01.2020	27.01.2020
3.	Microbiological Assay of antibiotics by cup plate method*	04.02.2020	03.02.2020
4.	Microbiological Assay of vitamins by turbidometric method**	11.02.2020	10.02.2020
5.	Determination of RWC**	18.02.2020	17.02.2020
6.	Determination of portability of water**	25.02.2020	24.02.2020
7.	Revision class / Repetition of Important Experiments	03.03.2020	02.03.2020
8.	<b>THIRD SESSIONAL EXAMINATION</b>	10.03.2020	09.03.2020

\*Indicate minor experiment & \*\*indicate major experiment

<b>Name of the Subject</b>	Pharmacognosy and Phytopharmaceuticals (Theory)
<b>Name of the Faculty</b>	Dr.B Duraiswamy
<b>Designation, Department</b>	Professor & Head, Department of Pharmacognosy
<b>Mobile Number</b>	9442083818
<b>e-Mail i.d.</b>	bdurais@jssuni.edu.in

### LECTURE PLAN - Theory

Sessional	Number of Hours of Didactic Lecture	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	24	09	33	12
<b>II</b>	26	03	27	07
<b>III</b>	26	03	29	08
<b>Total Number of Hours</b>	76	15	91	27

#### I SESSIONAL: 24 Lectures + 09 Activities

Lecture No	Date	Lecture Details
Tutorial -1	19.06.19	-
1	20.06.19	Introduction
2	21.06.19	Definition and History of Pharmacognosy
3	22.06.19	Scope of Pharmacognosy
Tutorial -2	26.06.19	-
Activity-1	27.06.19	Revision 1
4	28.06.19	Classification of Crude drugs – Alphabetical, Morphological
5	29.06.19	Chemical, and Pharmacological classification
Tutorial -3	03.07.19	-
Activity-2	04.07.19	Class Test 2
6	05.07.19	Taxonomical classification
7	06.07.19	Chemotaxonomical classification
Tutorial -4	10.07.19	-
Activity-3	11.07.19	Class test 3
8	12.07.19	General Methods of chemotaxonomy
9	13.07.19	Cultivation of crude drugs
Tutorial -5	17.07.19	-
Activity-4	18.07.19	Revision 4
10	19.07.19	Collection and processing of crude drugs
11	20.07.19	Storage of crude drugs
Tutorial -6	24.07.19	-
Activity-5	25.07.19	Class Test 5

12	26.07.19	Conservation of medicinal plants (In-Situ)
13	27.07.19	Conservation of medicinal plants (Ex-Situ)
Tutorial -7	31.07.19	-
Activity-6	01.08.19	Revision 6
14	02.08.19	Method of cultivation of senna
15	03.08.19	Method of cultivation of Cinchona
Tutorial -8	07.08.19	-
Activity-7	08.08.19	Revision 7
16	09.08.19	Method of cultivation of Cardamom
17	10.08.19	Method of cultivation of opium
Tutorial -9	14.08.19	-
Activity-8	16.08.19	Class test 8
18	17.08.19	Method of cultivation of Ergot
Tutorial -10	21.08.19	-
19	22.08.19	Method of cultivation of Isapgol and Ginger
20	24.08.19	Study of cell wall constituents.
Tutorial -11	28.08.19	-
21	30.08.19	Study of cell wall constituents
Activity-9	31.08.19	Class test 9
Tutorial 12	04.09.19	-
22	05.09.19	Study of cell inclusions
23	06.09.19	Study of cell inclusions
24	07.09.19	Study of morphology and microscopy of different plant parts Leaf: Datura, Senna

## II SESSIONAL: 26 Lectures + 03 Activities

Lecture No	Date	Lecture Details
1	20.09.19	Bark: Cinnamon, Cinchona
2	21.09.19	Wood: Quassia; Stem: Ephedra
3	26.09.19	Root: Rauwolfia, Liquorice
4	27.09.19	Rhizome: Ginger
5	28.09.19	Rhizome: Podophyllum
6	03.10.19	Flowerbuds: Clove
7	04.10.19	Fruits: Coriander, Fennel
Activity- 1	05.10.19	Class test
Tutorial 1	09.10.19	-
8	10.10.19	Seeds: Isapgol, Nuxvomica
9	11.10.19	Study of Natural pesticides: Pyrethrum
10	12.10.19	Tobacco
Tutorial 2	16.10.19	-
11	17.10.19	Neem
12	18.10.19	Detailed study of various phytoconstituents
13	19.10.19	Carbohydrates and related products
Tutorial 3	23.10.19	-
14	24.10.19	Honey

15	25.10.19	Acacia
Tutorial 4	30.10.19	-
16	31.10.19	Agar
17	01.11.19	Sterculia, Tragacanth
18	02.11.19	Cellulose and its products
Tutorial 5	06.11.19	-
19	07.11.19	Pectin
20	08.11.19	Guargum
21	09.11.19	Sodium Alginate
Tutorial 6	13.11.19	-
22	14.11.19	Definition, source, method of extraction, chemistry and method of analysis of lipids
23	15.11.19	Definition, source, method of extraction, chemistry and method of analysis of lipids
24	16.11.19	Castor Oil, Olive oil
Tutorial 7	20.11.19	-
25	21.11.19	Shark liver oil
Activity-2	22.11.19	Class test
Activity-3	23.11.19	Class Test

### III SESSIONAL: 26 Lectures + 03 Activities

1	05.12.19	Chaulmoogra oil
2	06.12.19	Wool fat, Beeswax
3	07.12.19	Cocoa butter, Spermaceti
4	13.12.19	Therapeutical application of herbal drugs
5	14.12.19	Poisonous plants, Herb-Drug Interaction
6	19.12.19	Edible vaccines
7	20.12.19	Marine Pharmacognosy
8	17.01.20	Introduction, definition, classification of alkaloids
9	18.01.20	Properties and general method of isolation of alkaloids
Tutorial 1	22.01.20	-
Activity-1	23.01.20	Class test 1
Activity-2	24.01.20	Class test 2
10	25.01.20	Introduction, definition, classification of Glycosides
Tutorial 2	29.01.20	-
11	30.01.20	Introduction, definition, classification of Glycosides
12	31.01.20	Properties and general method of isolation of glycosides
13	01.02.20	Introduction, definition, classification of Essential oils
Tutorial 3	05.02.20	-
14	06.02.20	Properties and general method of isolation of Essential oils
Tutorial 4	12.02.20	-
15	13.02.20	Introduction, definition, classification of Flavonoids
16	14.02.20	Properties and general method of isolation of Flavonoids



Activity -3	15.02.20	Revision 1
Tutorial 5	19.02.20	-
17	20.02.20	Introduction, definition, classification of Resins
18	22.02.20	Properties and general method of isolation of Resins
Tutorial 6	26.02.20	-
19	27.02.20	Introduction, definition, classification of Tannins
20	28.02.20	Properties and general method of isolation of Tannins
21	29.02.20	Study of plant fibers
Tutorial 7	04.03.20	-
22	05.03.20	Study of plant fibres
23	06.03.20	Surgical dressings
24	07.03.20	Surgical dressings
Tutorial 8	11.03.20	-
25	12.03.20	Different methods of alteration of crude drugs
26	13.03.20	Methods of detection

<b>Name of the Subject</b>	Pharmacology-I (Theory)
<b>Name of the Faculty</b>	Dr. A. Justin
<b>Designation, Department</b>	Assistant Professor, Department of Pharmacology
<b>Mobile Number</b>	9942932150
<b>e-Mail i.d.</b>	justin@jssuni.edu.in

### LECTURE PLAN – Theory

Sessional	Number of Hours of Didactic Lecture	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	25	10	35	08
<b>II</b>	25	02	27	09
<b>III</b>	25	04	29	09
<b>Total Number of Hours</b>	75	16	91	26

### I SESSIONAL: 25 Lectures + 10 Activities

Lecture No.	Date	Lecture Details
Activity - 1	20.06.2019	Orientation – Pharmacology
Tutorial-1	20.06.2019	-
Activity - 2	21.06.2019	Orientation – Pharmacology
Activity - 3	22.06.2019	Orientation – Pharmacology
Activity - 4	27.06.2019	Orientation – Pharmacology
Tutorial-2	27.06.2019	-
<b>Unit-1: General Pharmacology</b>		<b>16 Hours</b>
1.	28.06.2019	Introduction, definitions and scope of pharmacology
2.	29.06.2019	Routes of drug administration
3.	04.07.2019	Pharmacokinetics - Absorption
Tutorial-3	04.07.2019	-
4.	05.07.2019	Pharmacokinetics - Absorption
5.	06.07.2019	Pharmacokinetics - Distribution
6.	11.07.2019	Pharmacokinetics - Metabolism
Tutorial-4	11.07.2019	-
7.	12.07.2019	Pharmacokinetics - Excretion
8.	13.07.2019	Pharmacodynamics
9.	18.07.2019	Pharmacodynamics
Tutorial-5	18.07.2019	-
10.	19.07.2019	Pharmacodynamics

11.	20.07.2019	Pharmacodynamics
Activity-5	25.07.2019	Seminar/Group Discussion/ Class test
Tutorial -6	25.07.2019	-
12.	26.07.2019	Factors modifying drug effects
13.	27.07.2019	Factors modifying drug effects
14.	01.08.2019	Drug toxicity-Basic concepts, acute, sub-acute, chronic toxicity
Tutorial -7	01.08.2019	-
15.	02.08.2019	Pre-clinical evaluation
16.	03.08.2019	Drug interactions
<b>Unit-2: Pharmacology of drugs acting on ANS</b>		<b>09 Hours</b>
17.	08.08.2019	Introduction to neurotransmission
Tutorial-8	08.08.2019	-
18.	09.08.2019	Cholinergic drugs
19.	10.08.2019	Anti-cholinergic drugs
Activity-6	16.08.2019	Seminar/Group Discussion/ Class test
20.	17.08.2019	Neuromuscular blockers
21.	22.08.2019	Adrenergic drugs
Activity-7	22.08.2019	Seminar/Group Discussion/ Class test
22.	24.08.2019	Anti-adrenergic drugs
23.	30.08.2019	Mydriatics and miotics
24.	31.08.2019	Drugs used in Parkinsonism
25	05.09.2019	Drugs used in Myasthenia gravis
Activity-8	05.09.2019	Seminar/Group Discussion/ Class test
Activity-9	06.09.2019	Seminar/Group Discussion/ Class test
Activity-10	07.09.2019	Seminar/Group Discussion/ Class test

## II SESSIONAL: 25 Lectures + 02 Activities

Lecture No.	Date	Lecture Details
<b>Unit-3: Pharmacology of drugs acting on Cardiovascular System</b>		<b>09 Hours</b>
1.	20.09.2019	Anti-hypertensives
2.	21.09.2019	Anti-hypertensives
3.	26.09.2019	Anti-anginal drugs
Tutorial-1	26.09.2019	-
4.	27.09.2019	Anti-anginal drugs
5.	28.09.2019	Anti-arrhythmic drugs
6.	03.10.2019	Anti-arrhythmic drugs
Tutorial-2	03.10.2019	-
7.	04.10.2019	Drugs used for therapy of Congestive Heart Failure
Activity-1	10.10.2019	Seminar/Group Discussion/ Class test
Tutorial-3	10.10.2019	-

8.	11.10.2019	Drugs used for Hyperlipidaemias
9.	12.10.2019	Drugs used for Hyperlipidaemias
<b>Unit-4: Pharmacology of drugs acting on Central Nervous System</b>		<b>15 Hours</b>
10.	17.10.2019	Excitatory and inhibitory neurotransmitters of CNS
Tutorial-4	17.10.2019	-
11.	18.10.2019	General anaesthetics
12.	19.10.2019	General anaesthetics
13.	24.10.2019	Anticonvulsants
Tutorial-5	24.10.2019	-
14.	25.10.2019	Anticonvulsants
Activity-2	31.10.2019	Seminar/Group Discussion/ Class test
Tutorial-6	31.10.2019	
15.	01.11.2019	Sedatives and hypnotics
16.	02.11.2019	Sedatives and hypnotics
17.	07.11.2019	Analgesics
Tutorial-7	07.11.2019	-
18.	08.11.2019	Analgesics
19.	09.11.2019	Anti-inflammatory agents
20.	14.11.2019	Anti-inflammatory agents
Tutorial-8	14.11.2019	-
21.	15.11.2019	Psychotropic drugs
22.	16.11.2019	Psychotropic drugs
23.	21.11.2019	CNS stimulants and cognition enhancers
Tutorial-9	21.11.2019	
24.	22.11.2019	CNS stimulants and cognition enhancers
25.	23.11.2019	Seminar/Group Discussion/ Class test

### III SESSIONAL: 25 Lectures + 04 Activities

Lecture No.	Date	Lecture Details
<b>Unit-4: Pharmacology of drugs acting on Central Nervous System</b>		<b>05 Hours</b>
1	05.12.2019	Alcohol and methyl alcohol
Tutorial-1	05.12.2019	
2	06.12.2019	Alcohol and methyl alcohol
3	07.12.2019	Centrally acting skeletal muscle relaxants
4	13.12.2019	Drug dependence, abuse and tolerance
5	14.12.2019	List of drugs causing drug dependence, abuse and tolerance
<b>Unit-5: Pharmacology of Local Anaesthetic</b>		<b>02 Hours</b>
6	19.12.2019	Pharmacology of Local Anaesthetics
Tutorial-2	19.12.2019	-

7	20.12.2019	Pharmacology of Local Anaesthetics
<b>Unit-6: Pharmacology of drugs acting on Respiratory tract</b>		<b>05 Hours</b>
8	21.12.2019	Bronchodilators
9	17.01.2020	Mucolytics
10	18.01.2020	Expectorants
11	23.01.2020	Anti-tussives
Tutorial-3	23.01.2020	-
12	24.01.2020	Nasal Decongestants
<b>Unit-7: Pharmacology of Hormones and Hormone antagonists</b>		<b>08 Hours</b>
13	25.01.2020	Thyroid hormones
14	30.01.2020	Anti-thyroid drugs
Tutorial-4	30.01.2020	Insulin, Insulin analogues
15	31.01.2020	Oral hypoglycemic agents
16	01.02.2020	Oral hypoglycemic agents
17	06.02.2020	Sex hormones
Tutorial-4	06.02.2020	
18	13.02.2020	Oral contraceptives
Tutorial-5	13.02.2020	
19	14.02.2020	Oxytocin, Other stimulants and relaxants
Activity-1	15.02.2020	Seminar/Group Discussion/ Class test
<b>Unit-8: Pharmacology of Autocoids and their Antagonists</b>		<b>06 Hours</b>
20	20.02.2020	-
Tutorial-6	20.02.2020	Histamines
21	22.02.2020	Antihistaminics
22	27.02.2020	5-Hydroxytryptamine
Tutorial-7	27.02.2020	-
23	28.02.2020	5-Hydroxytryptamine's antagonists
24	05.03.2020	Lipid derived autocoids
Tutorial-8	05.03.2020	-
25	06.03.2020	Platelet activating factor
Activity-2	07.03.2020	Seminar/Group Discussion/ Class test
Activity-3	12.03.2020	Seminar/Group Discussion/ Class test
Tutorial-9	12.03.2020	
Activity-4	13.03.2020	Seminar/Group Discussion/ Class test

### **Text books**

- Tripathi, K. D. Essentials of medical pharmacology. 6th edition, 2008. Publisher: Jaypee, Delhi.
- Satoskar, R.S. and Bhadarkar, S.D. Pharmacology and pharmacotherapeutics. 20th edition, 2008. Publisher: Popular, Mumbai.
- Rang, H.P. & Dale, M.M. Pharmacology. 5th edition, 2003. Publisher: Churchill Living stone.

### **Reference books**

- Goodman Gilman, A., Rall, T.W., Nies, A.I.S. and Taylor, P. Goodman and Gilman's The pharmacological basis of therapeutics. 11th edition, 2006. Publisher McGraw Hill, Pergamon Press.
- Craig, C.R. & Stitzel, R.E. Modern Pharmacology. 5th edition, 1997. Publisher: Little Brown Co.
- Katzung, B.G. Basic and clinical pharmacology. 9th edition, 2004. Publisher: Prentice Hall, Int.
- Shargel and Leon. Applied Biopharmaceutics and Pharmacokinetics. Latest edition 2002. Publisher: Prentice Hall, London.

<b>Name of the Subject</b>	Community Pharmacy (Theory)
<b>Name of the Faculty</b>	Dr. Aneena Suresh
<b>Designation, Department</b>	Lecturer, Department of Pharmacy Practice
<b>Mobile Number</b>	8304023133
<b>e-Mail i.d.</b>	aneena@jssuni.edu.in

### LECTURE PLAN - Theory

Sessional	No. of hours of Didactic Lectures	No. of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	16	05	21	11
<b>II</b>	17	02	19	10
<b>III</b>	17	03	20	10
<b>Total Number of Hours</b>	50	10	60	31

#### I SESSIONAL: 16 Lectures + 05 Activities

Lecture No.	Date	Lecture Details
Activity-1	20.06.2019	Orientation about the Community Pharmacy
<b>Scope of community pharmacy</b>		<b>02 hours</b>
Tutorial-1	21.06.2019	-
1.	21.06.2019	Definition and scope of Community Pharmacy
2.	27.06.2019	Roles and responsibilities of community pharmacist
<b>Community pharmacy management</b>		<b>04 hours</b>
Tutorial-2	28.06.2019	-
1.	28.06.2019	Selection of site, space layout, and design
Activity-2	04.07.2019	Group Discussion/Test
Tutorial-3	05.07.2019	-
2.	05.07.2019	Staff, materials – coding, stocking
3.	11.07.2019	Legal requirements, maintenance of various registers
Tutorial-4	12.07.2019	-
4.	12.07.2019	Use of computers: business and healthcare softwares
<b>Prescriptions</b>		<b>02 hours</b>
1.	18.07.2019	Parts of prescription, legality
Tutorial-5	19.07.2019	-
2.	19.07.2019	Identification of medication related problems like drug

		interactions.
<b>Inventory control in community pharmacy</b>		<b>02 hours</b>
Activity- 3	25.07.2019	Group Discussion/Test
Tutorial-6	26.07.2019	-
1.	26.07.2019	Definition, various methods of inventory control
2.	01.08.2019	ABC, VED, EOQ, Lead Time and safety stock
<b>Pharmaceutical care</b>		<b>01 hour</b>
Tutorial-7	02.08.2019	-
1.	02.08.2019	Definition and principles of pharmaceutical care
<b>Patient counselling</b>		<b>03 hours</b>
1.	08.08.2019	Definition, outcomes and various stages
Tutorial-8	09.08.2019	-
2.	09.08.2019	Barriers and strategies to overcome barriers
Tutorial-9	16.08.2019	-
3.	16.08.2019	Patient information leaflets – content, design, layouts and advisory labels.
Activity-4	22.08.2019	Group Discussion/Test
<b>Patient medication adherence</b>		<b>02 hours</b>
Tutorial-10	30.08.2019	-
1.	30.08.2019	Definition, factors affecting medication adherence
2.	05.09.2019	Role of pharmacist in improving medication adherence
Tutorial-11	06.09.2019	-
Activity-5	06.09.2019	Group Discussion/Test

## II SESSIONAL: 17 Lectures + 02 Activities

<b>Health screening services</b>		<b>03 hours</b>
Tutorial-1	20.09.2019	-
1.	20.09.2019	Definition, importance, methods for screening blood pressure
2.	26.09.2019	Blood sugar and cholesterol testing
Tutorial-2	27.09.2019	-
3.	27.09.2019	Lung function test
<b>OTC medication</b>		<b>01 hour</b>
1.	03.10.2019	Introduction, definition, sale and OTC medication list
<b>Communicable diseases</b>		<b>10 hours</b>
Tutorial-3	04.10.2019	-
1.	04.10.2019	Hepatitis
2.	10.10.2019	Typhoid
Tutorial-4	11.10.2019	-
3.	11.10.2019	Tuberculosis
4.	17.10.2019	Gonorrhoea
Tutorial-5	18.10.2019	-
5.	18.10.2019	Amoebiasis



6.	24.10.2019	Malaria
Tutorial-6	25.10.2019	-
Activity-1	25.10.2019	Group Discussion/Test
7.	31.10.2019	Leprosy
Tutorial-7	01.11.2019	-
8.	01.11.2019	Syphilis
9.	07.11.2019	AIDS
Tutorial-8	08.11.2019	-
10.	08.11.2019	AIDS
<b>Balanced diet</b>		<b>02 hours</b>
1.	14.11.2019	Balanced diet
Tutorial-9	15.11.2019	-
Activity-2	15.11.2019	Group Discussion/Test
2.	21.11.2019	Treatment and prevention of deficiency disorders
<b>Family planning – role of pharmacist</b>		<b>01 hour</b>
Tutorial-10	22.11.2019	-
1.	22.11.2019	Family planning – Role of pharmacist

### III SESSIONAL: 17 Lectures + 03 Activities

Lecture No.	Date	Lecture Details
<b>Responding to symptoms of minor ailments, relevant - Pathophysiology and common drug therapy</b>		<b>08 hours</b>
1.	05.12.2019	Pain
Tutorial-1	06.12.2019	-
2.	06.12.2019	Nausea, Vomiting and Dyspepsia
Tutorial-2	13.12.2019	-
3.	13.12.2019	Ophthalmic symptoms
4.	19.12.2019	Pyrexia
Tutorial-3	20.12.2019	-
Activity – 1	20.12.2019	Group Discussion/Test
Tutorial-4	17.01.2020	-
5.	17.01.2020	Constipation
6.	23.01.2020	Diarrhea
Tutorial-5	24.01.2020	-
7.	24.01.2020	Worm infestations
8.	30.01.2020	Worm infestations
<b>Essential drug concept and role of community pharmacists</b>		<b>01 hour</b>
Tutorial-6	31.01.2020	-
1.	31.01.2020	Essential drug concept and role of community pharmacists
<b>Rational drug therapy and role of community pharmacists</b>		<b>02 hours</b>

1.	06.02.2020	Rational drug therapy and role of community pharmacists
2.	13.02.2020	Rational drug therapy and role of community pharmacists
Tutorial-7	14.02.2020	-
Activity – 2	14.02.2020	Group Discussion/Test
<b>Code of ethics for community pharmacists</b>		<b>01 hour</b>
9.	20.02.2020	Code of ethics for community pharmacists
<b>Health education</b>		<b>04 hours</b>
1.	27.02.2020	WHO definition of health and health promotion, Prescribing guidelines for pediatrics
Tutorial-8	28.02.2020	-
2.	28.02.2020	Prescribing guidelines for pediatrics
3.	05.03.2020	Prescribing guidelines for geriatrics
Tutorial-9	06.03.2020	-
4.	06.03.2020	Prescribing guidelines for pregnant women
5.	12.03.2020	Prescribing guidelines for lactating women
Tutorial-10	13.03.2020	-
Activity– 3	13.03.2020	Group Discussion/Test

**Text Books:**

- Health Education and Community Pharmacy by N.S.Parmar
- WHO consultative group report
- Drug store & Business management by Mohammed Ali & Jyoti

**Reference books:**

- Handbook of pharmacy – health care. Edt. Robin J Harman. The Pharmaceutical press.
- Comprehensive Pharmacy Review – Edt. Leon Shargel. Lippincott Williams & Wilkins.

<b>Name of the Subject</b>	Pharmacotherapeutics- I (Theory)
<b>Name of the Faculty</b>	Dr. M.Deepalakshmi
<b>Designation, Department</b>	Lecturer, Department of Pharmacy Practice
<b>Mobile Number</b>	9994974663
<b>e-Mail i.d.</b>	deepapharmacy@jssuni.edu.in

### LECTURE PLAN - Theory

Sessional	Number of Hours of Didactic Lecture	No. of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
<b>I</b>	25	09	34	11
<b>II</b>	25	02	27	10
<b>III</b>	25	02	27	08
<b>Total Number of Lecture Hours</b>	75	13	88	29

#### I SESSIONAL: 25 Lectures + 09 Activities

Lecture No.	Date	Lecture Details
Activity-1	19.06.2019	Orientation of the subject
<b>Unit-1: Cardiovascular system</b>		<b>25 hours</b>
1.	20.06.2019	Etiology& Classification of hypertension
2.	21.06.2019	Pathophysiology of hypertension
Tutorial-1	22.06.2019	-
3.	26.06.2019	Pathophysiology of hypertension
4..	27.06.2019	Management of hypertension
5.	28.06.2019	Management of hypertension
Tutorial-2	29.06.2019	-
6.	03.07.2019	Management of hypertension cont
7.	04.07.2019	Etiology& Classification of heart failure
8.	05.07.2019	Pathophysiology of heart failure
Tutorial-3	06.07.2019	-
Activity- 2	10.07.2019	Case Discussion/Quiz
9.	11.07.2019	Management of heart failure
10.	12.07.2019	Types, Regulation of coronary blood flow
Tutorial-4	13.07.2019	-

11.	17.07.2019	Pathophysiology of angina pectoris
Activity- 3	18.07.2019	Case Discussion/Quiz
12.	19.07.2019	Management of angina pectoris
Tutorial-5	20.07.2019	-
13.	24.07.2019	Pathophysiology of Myocardial infarction
14.	25.07.2019	Management of Myocardial infarction
Activity- 4	26.07.2019	Case Discussion/Quiz
Tutorial –6	27.07.2019	-
15.	31.07.2019	Lipoprotein metabolism & pathophysiology of Hyperlipidaemias
16.	01.08.2019	Mechanism of Atherosclerosis
17.	02.08.2019	Mechanism of Atherosclerosis
Tutorial –7	03.08.2019	-
18.	07.08.2019	Treatment of Hyperlipidaemias
Activity-5	08.08.2019	Case Discussion/Quiz
19.	09.08.2019	Introduction of Electrophysiology and cellular physiology
Tutorial – 8	10.08.2019	-
20.	14.08.2019	Normal and Abnormal Conduction Pathophysiology
21.	16.08.2019	Classification of Arrhythmias
Tutorial – 9	17.08.2019	-
Activity-6	21.08.2019	
22.	22.08.2019	Vaughan Williams classification of anti-arrhythmic drugs
Tutorial – 10	24.08.2019	-
23.	28.08.2019	Vaughan Williams classification of anti-arrhythmic drugs
Activity-7	30.08.2019	Case Discussion/Quiz
Tutorial – 11	31.09.2019	-
24.	04.09.2019	Management of Arrhythmias
Activity-8	05.09.2019	Case Discussion/Quiz
25.	06.09.2019	Management of Arrhythmias
Activity-9	11.09.2019	Case Discussion/Quiz

## II SESSIONAL: 25 Lectures + 02 Activities

Lecture No.	Date	Lecture Details
<b>Unit-2: Respiratory system</b>		<b>07 hours</b>
1.	20.09.2019	Pulmonary function test
Tutorial-1	21.09.2019	-
2.	26.09.2019	Introduction and types of Asthma
3.	27.09.2019	Pathophysiology of Asthma
Tutorial- 2	28.09.2019	Management of Asthma
4.	03.10.2019	Introduction to Chronic obstructive airways disease
5.	04.10.2019	Pathophysiology of COPD
Tutorial- 3	05.10.2019	-
6.	09.10.2019	Management of COPD
7.	10.10.2019	Drug induced pulmonary diseases
<b>Unit-3: Endocrine system</b>		<b>16 hours</b>
8.	11.10.2019	Introduction and types of Diabetes
Tutorial- 4	12.10.2019	-
9.	16.10.2019	Introduction and types of Diabetes
10.	17.10.2019	Pathophysiology of diabetes
11.	18.10.2019	Management of diabetes
Tutorial- 5	19.10.2019	-
12.	23.10.2019	Management of diabetes
13.	24.10.2019	Pathophysiology of Hypothyroidism
14.	25.10.2019	Management of Hypothyroidism
15.	30.10.2019	Pathophysiology of Hyperthyroidism
16.	31.10.2019	Management of Hyperthyroidism
17.	01.11.2019	Oral contraceptives
Tutorial – 6	02.11.2019	-
18.	06.11.2019	Hormone replacement therapy
19.	07.11.2019	Hormone replacement therapy
20.	08.11.2019	Introduction of Osteoporosis
Tutorial – 7	09.11.2019	-
21.	13.11.2019	Types of Osteoporosis
22.	14.11.2019	Pathophysiology of Osteoporosis
23.	15.11.2019	Management of Osteoporosis
Tutorial – 8	16.11.2019	-
<b>Unit-4: General prescribing guidelines</b>		<b>02 hours</b>

24.	20.11.2019	Introduction on General prescribing guidelines
25.	21.11.2019	General prescribing guidelines for Pediatrics
Activity -1	22.11.2019	Case Discussion/Quiz
Tutorial – 9	23.11.2019	-
Activity -2	27.11.2019	Case Discussion/Quiz

### III SESSIONAL: 25 Lectures + 02 Activities

Lecture No.	Date	Lecture Details
<b>Unit-4: General prescribing guidelines</b>		<b>07 hours</b>
1.	05.12.2019	General prescribing guidelines for Pediatrics
2.	06.12.2019	General prescribing guidelines for Geriatrics
Tutorial – 1	07.12.2019	-
Activity- 1	13.12.2019	Case Discussion/Quiz
Tutorial – 2	14.12.2019	-
3.	18.12.2019	General prescribing guidelines for Geriatrics
4.	19.12.2019	General prescribing guidelines for Geriatrics
Activity- 2	20.12.2019	Case Discussion/Quiz
Tutorial – 3	21.12.2019	-
Activity- 3	17.01.2020	Case Discussion/Quiz
Tutorial – 4	18.01.2020	-
5.	22.01.2020	General prescribing guidelines for Pregnancy and lactation
6.	23.01.2020	General prescribing guidelines for Pregnancy and lactation
7.	24.01.2020	General prescribing guidelines for Pregnancy and lactation
Tutorial – 5	25.01.2020	-
<b>Unit-5: Ophthalmology</b>		<b>09 hours</b>
8.	29.01.2020	Introduction and Glaucoma
9.	30.01.2020	Pathophysiology of Glaucoma
10.	31.01.2020	Pathophysiology of Glaucoma
Tutorial – 6	01.02.2020	-
11.	05.02.2020	Management of Glaucoma
12.	06.02.2020	Management of Glaucoma...
13.	12.02.2020	Management of Glaucoma
14.	13.02.2020	Viral Conjunctivitis
15.	14.02.2020	Viral Conjunctivitis
Tutorial – 7	15.02.2020	-

16.	19.02.2020	Bacterial conjunctivitis
<b>Unit-5: Introduction to rational drug use</b>		<b>09 hours</b>
17.	20.02.2020	Introduction to Rational drug use
Tutorial – 8	22.02.2020	-
18.	26.02.2020	Essential drug concept
19.	27.02.2020	Essential drug concept
20.	28.02.2020	Rational use of Antibiotics
Tutorial – 9	29.02.2020	-
21.	04.03.2020	Rational use of Antibiotics
22.	05.03.2020	Rational use of Injections
23.	06.03.2020	Rational use of OTC Drugs
Tutorial – 10	07.03.2020	-
24.	11.03.2020	Rational use of OTC Drugs...
25.	12.03.2020	Consequences of irrational drug use
Activity- 4	13.03.2020	Case Discussion/Quiz

#### TEXT BOOKS

1. Clinical Pharmacy and Therapeutics – Walker and Whittlesea, Churchill Livingstone publication
2. Pharmacotherapy: A Pathophysiology approach - Joseph T. Dipiro et al. Appleton & Lange
3. Pharmacotherapy: Principles and Practice- Chisholm- Burn Wells Schwinghammer Malone and Joseph P Dipiro. McGraw Hill Publications.

#### REFERENCE BOOKS

1. Pathologic basis of disease: Robbins SL, W.B. Saunders publication
2. Pathology and therapeutics for Pharmacists: A Basis for Clinical Pharmacy Practice - Green and Harris, Chapman and Hall publication
3. Clinical Pharmacy and Therapeutics - Eric T. Herfindal, Williams and Wilkins Publication
4. Applied Therapeutics: The clinical Use of Drugs. Lloyd Young and Koda-Kimble MA, Williams and Wilkins Publication
5. Avery's Drug Treatment, 4th Edn, 1997, Adis International Limited.
6. Relevant review articles from recent medical and pharmaceutical literature.



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**II Pharm. D. Time table (Academic Year 2019-2020)**

DAY	9-10 AM	10-11 AM	11-12 AM	12-01 PM	LUNCH BREAK	02-03 PM	03-04 PM	04-05 PM
<b>Monday</b>	PM-(T) (AW)	Batch I Batch II	PT- I (P) (MD) Library Hour			Batch I PCG (P) (BD) Batch II PM (P) (AW)		
<b>Tuesday</b>	PM-(T) (AW)	Batch II Batch II	PT - I (P) (MD) Library Hour			Batch II PCG(P) (BD) Batch I PM (P) (AW)		
	PM-(T) (AW)	PT-(T) (MD)	PCG – Tutorial (BD)	PP (MD)		Assignment Work		
<b>Thursday</b>	PM - (Tutorial) (AW)	PC -(T) (AJ)	PCG - (T) (BD)	PC- Tutorial (AJ)		PT-(T) (MD)	C P- (T) (AS)	PP- (T) (MD)
<b>Friday</b>	C P- Tutorial (AS)	PC-(T) (AJ)	PCG - (T) (BD)	Library Hour		PT-(T) (MD)	C P- (T) (AS)	PP- (T) (MD)
<b>Saturday</b>	PT- Tutorial (MD)	PCG - (T)(BD)	PC-(T) (AJ)	Class Tests		PP- Tutorial (MD) (1.00- 1.30 PM)		

Theory (T) & Practical (P)

**Subject In-charges:**

Mrs. M. Deepalakshmi (MD), Lecturer : Pathophysiology (PP) (T)

Dr. Ashish Wadhvani (AW), Asst. Professor : Pharmaceutical Microbiology (PM) (T) & (P)

Prof. B Duraiswamy (BD), Asst. Professor : Pharmacognosy and Phytopharmaceuticals (PCG) (T) & (P)

Dr. A Justin (AJ), Assistant Professor : Pharmacology (PC) (T)

Dr. Aneena Suresh (AS), Lecturer : Community Pharmacy (CP) (T)

Mrs. M. Deepalakshmi (MD), Lecturer : Pharmacotherapeutics -1 (PT) (T) & (P)