

LECTURE PLAN – Theory

Subject: PHARMACOTHERAPEUTICS- III (THEORY)
Faculty: DR. MOHSINA HYDER M.PHARM., PH.D
Designation: LECTURER, DEPARTMENT OF PHARMACY PRACTICE
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Sessional	Number of Hours of Didactic Lecture	No. of Hours of other Activities	Total Number of Lecture Hours
I	24	03	27
II	26	05	31
III	25	04	29
Total Number of Hours	75	12	87

I SESSIONAL: 24 Lectures + 3 Activities

Lecture No.	Date	Lecture details	Hours
	28-06-2022	Orientation to the subject	
Unit-1: Gastrointestinal system			20 Hours
1.	29-06-2022	Introduction on Peptic ulcer disease	
2.	01-07-2022	Pathophysiology of Peptic ulcer disease	
Tutorial -1	04-07-2022	-	
3.	05-07-2022	Management of Peptic ulcer disease	
Activity-1	06-07-2022	Group discussion/ Quiz/ Other pedagogy	
4.	08-07-2022	Introduction on Gastro Esophageal Reflux Disease	
Tutorial -2	11-07-2022	-	
5.	12-07-2022	Pathophysiology of Gastro Esophageal Reflux Disease	
6.	13-07-2022	Management of Gastro Esophageal Reflux Disease	

Activity-2	15-07-2022	Group discussion/ Quiz/ Other pedagogy	
Tutorial -3	18-07-2022	-	
7.	19-07-2022	Introduction on Inflammatory bowel disease	
8.	20-07-2022	Pathophysiology of Inflammatory bowel disease	
9.	22-07-2022	Management of Inflammatory bowel disease	
Tutorial -4	25-07-2022	Monthly test	
10.	26-07-2022	Introduction on Liver Disorders	
11.	27-07-2022	Introduction on Alcoholic liver disease	
12.	29-07-2022	Pathophysiology of alcoholic liver disease	
Tutorial -5	01-08-2022	-	
13.	02-08-2022	Management of Alcoholic liver disease	
14.	03-08-2022	Introduction on viral hepatitis	
15.	05-08-2022	Pathophysiology of viral hepatitis	
Tutorial -6	08-08-2022	-	
16.	10-08-2022	Management of viral hepatitis	
17.	12-08-2022	Pathophysiology and management of Jaundice	
18.	16-08-2022	Introduction on Drug induced liver disorders	
19.	17-08-2022	Pathophysiology of Drug induced liver disorders	
Tutorial -7	22-08-2022	-	
20.	23-08-2022	Management of Drug induced liver disorders	
Activity-3	Group discussion/ Quiz/ Other pedagogy		
Unit-3: Nervous System			04 Hours
1.	24-08-2022	Introduction on Epilepsy	
2.	26-08-2022	Pathophysiology of Epilepsy	

Tutorial -8	29-08-2022	Monthly test	
3.	30-08-2022	Management of Epilepsy	
4.	02-09-2022	Introduction on parkinsonism	
EXAM	05-09-2022	First sessional theory	

II SESSIONAL: 26 Lectures + 5 Activities

Lecture No.	Lecture Details		Hours
Unit-3: Nervous System			08 Hours
1.	13-09-2022	Pathophysiology of Parkinsonism	
2.	14-09-2022	Management of Parkinsonism	
3.	16-09-2022	Introduction on stroke	
Tutorial -9	19-09-2022	-	
4.	20-09-2022	Pathophysiology of stroke	
5.	21-09-2022	Management of stroke	
6.	23-09-2022	Introduction on Alzheimer's disease	
Tutorial - 10	26-09-2022	Monthly test	
7.	27-09-2022	Pathophysiology of Alzheimer's disease	
8.	28-09-2022	Management of alzheimer's disease	
Activity 1	30-09-2022	Group discussion/ Quiz/ Other pedagogy	
Unit-4: Psychiatry disorders			15 Hours
1.	07-10-2022	Introduction on Schizophrenia	
Tutorial - 11	10-10-2022	-	
2.	11-10-2022	Pathophysiology of Schizophrenia	

3.	12-10-2022	Management of Schizophrenia		
4.	14-10-2022	Introduction on Affective disorders		
Tutorial - 12	17-10-2022	-		
5.	18-10-2022	Pathophysiology of Affective disorders		
6.	19-10-2022	Management of Affective disorders		
7.	21-10-2022	Introduction on Anxiety disorders		
8.	26-10-2022	Pathophysiology of Anxiety disorders		
9.	28-10-2022	Management of Anxiety disorders		
Tutorial - 13	31-10-2022	Monthly test		
10.	01-11-2022	Introduction on Sleep disorders		
11.	02-11-2022	Pathophysiology of Sleep disorders		
12.	04-11-2022	Management of Sleep disorders		
Tutorial - 14	07-11-2022	-		
13.	08-11-2022	Introduction on Obsessive-compulsive disorder		
14.	09-11-2022	Pathophysiology of Obsessive-compulsive disorder		
15.	11-11-2022	Management of Obsessive-compulsive disorder		
Tutorial - 15	14-11-2022	-		
Activity-2	15-11-2022	Group discussion/ Quiz/ Other pedagogy		
Activity-3	16-11-2022	Group discussion/ Quiz/ Other pedagogy		
Unit-5: Pain management				
16.	23-11-2022	Introduction on pain pathway		03 Hours
17.	25-11-2022	Pathophysiology of Pain Pathway		
Tutorial - 16	28-11-2022	Monthly test		

18.	29-11-2022	Management of Pain	
Activity -4	30-11-2022	Group discussion/ Quiz/ Other pedagogy	
Activity -5	02-12-2022	Group discussion/ Quiz/ Other pedagogy	

III SESSIONAL: 25 Lectures + 4 Activities

Lecture No.	Lecture Details		Hours
Tutorial -17	12-12-2022	-	09 Hours
1.	13-12-2022	Introduction on neuralgia	
2.	14-12-2022	Pathophysiology of neuralgia	
3.	16-12-2022	Management of neuralgia	
Tutorial -18	19-12-2022	Monthly test	
4.	20-12-2022	Introduction on Headache	
5.	21-12-2022	Pathophysiology of Headache	
6.	23-12-2022	Management of Head ache	
7.	18-01-2023	Introduction of venous thromboembolism	
8.	20-01-2023	Pathophysiology of venous thromboembolism	
Tutorial -19	23-01-2023	-	
9.	24-01-2023	Management of venous thromboembolism	
Acitivity-1	Group discussion/ Quiz/ Other pedagogy		
Unit-2: Hematological system			
1.	25-01-2023	Introduction to types of anemia	
2.	27-01-2023	Pathophysiology of aplastic anemia	
Tutorial -20	30-01-2023	Monthly test	

3.	31-01-2023	Pathophysiology of megaloblastic anemia		
4.	01-02-2023	Pathophysiology of hemolytic anemia		
5.	03-02-2023	Pathophysiology of agranulocytosis		
Tutorial -21	06-02-2023	-		
6.	07-02-2023	Pathophysiology of thrombocytopenia		
7.	08-02-2023	Management of anemias		
8.	10-02-2023	Management of anemias		
Tutorial -22	13-02-2022	-		
9.	14-02-2023	Introduction to Drug induced blood disorders		
10.	15-02-2023	Pathophysiology of Drug induced blood disorders		
11.	17-02-2023	Management of Drug induced blood disorders		
Tutorial -23	20-02-2023	-		
Activity 2	21-02-2023	Group discussion/ Quiz/ Other pedagogy		
Unit-6: Evidence Based Medicine				05 Hours
1	22-02-2023	Evidence based medicine		
Tutorial -24	27-02-2023	Monthly test		
2.	28-02-2023	Evidence based medicine		
3.	01-03-2023	Evidence based medicine		
4.	03-03-2023	Evidence based medicine		
Tutorial -25	06-03-2023	-		
5.	07-03-2023	Evidence based medicine		
Activity 3	08-03-2023	Group discussion/ Quiz/ Other pedagogy		
Activity 4	10-03-2023	Monthly Test		

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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LECTURE PLAN - Practical

SUBJECT : Pharmacotherapeutics III (Practical)
NAME OF THE STAFF : Dr Mohsina Hyder
DESIGNATION : Lecturer, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: mohsinahyder@jssuni.edu.in Mobile: 8110948616

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

I SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Introduction to therapeutics III practical	30-06- 2022	01-07- 2022
2.	Case 1- Peptic ulcer	07-07- 2022	08-07- 2022
3.	Case 2- Gastroesophageal reflux disease	14-07- 2022	15-07- 2022
4.	Minor case- Peptic ulcer	21-07- 2022	22-07- 2022
5.	Case 3- Inflammatory bowel disease	28-07- 2022	29-07- 2022
6.	Case 4- Alcoholic liver disease	04-08- 2022	05-08- 2022
7.	Minor case- Crohn's disease	11-08- 2022	12-08- 2022
8.	Case 5- Hepatitis	18-08- 2022	26-08- 2022
Repeat	Repetition of missed practical's if any	25-08- 2022	-
I Sessional Examination		01.09.2022	02.09.2022

II SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Case 6- Epilepsy	15.09.2022	16.09.2022
2.	Case 7- Stroke	22.09.2022	23.09.2022
3.	Case 8- Alzheimer disease	29.09.2022	30.09.2022
4.	Case 9- Parkinsonism	06.10.2022	07.10.2022
5.	Case 10- Schizophrenia	13.10.2022	14.10.2022
6.	Minor case on affective disorders	20.10.2022	21.10.2022
7.	Minor case on epilepsy	27.10.2022	28.10.2022
8.	Minor case on stroke	03.11.2022	04.11.2022
9.	Minor case on alzheimer's disease	10.11.2022	11.11.2022
Repeat	Repetition of missed practical's if any	17.11.2022	-
10.	Minor case on parkinsonism	24.11.2022	25.11.2022
SECOND SESSIONAL EXAMINATION		01.12.2022	02.12.2022

III SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
1.	Case 11- anxiety disorder	15.12.2022	16.12.2022
2.	Case 12- bipolar disorder	22.12.2022	23.12.2022
3.	Case 13- Migraine headache	19.01.2023	20.01.2023
Repeat	Repetition of missed practical's if any	-	27.01.2022
4.	Case 14- Venous thromboembolism	02.02.2023	03.02.2023
5.	Minor case on neuralgia	09.02.2023	10.02.2023
6.	Case 15- Anemia	16.02.2023	17.02.2023
Repeat	Repetition of missed practical's if any	23-02-2023	-
THIRD SESSIONAL EXAMINATION		02.03.2022	03.03.2022
Bonification of the Practical Record Note Book		09.03.2022	10.03.2022

LECTURE PLAN – Theory

SUBJECT : HOSPITAL PHARMACY (THEORY)
NAME OF THE STAFF : Mr VISHWAS HN
DESIGNATION : Lecturer, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: vishwas@jssuni.edu.in Mobile: 9885104372

Sessional	Number of Hours of Didactic Lecture	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Hospital Pharmacy			
I	19	01	19	9
II	16	07	16	9
III	15	03	15	9
Total Number of Hours	50	11	50	27

I SESSIONAL: 19 Lectures + 01 Activity

Lecture No.	Date	Lecture Details
Tutorial-1	28-06-2022	-
Hospital - its Organisation and functions		01 Hour
1	30-06-2022	Introduction to subject and Organization and functions of Hospital
Hospital pharmacy-Organisation and management Hours		05
2	01-07-2022	Organizational structure- Hospital pharmacy
Tutorial-2	05-07-2022	-
3	07-07-2022	Staff, Infrastructure- Hospital pharmacy
4	08-07-2022	Work loadstatistics- Hospital pharmacy
Tutorial-3	12-07-2022	-
5	14-07-2022	Management of materials and finance
6	15-07-2022	Roles & responsibilities of Hospital pharmacist
Tutorial-4	19-07-2022	-
The Budget – Preparation and implementation		01 Hour
7	21-07-2022	Budget-Preparation and implementation
Hospital drug policy		12 Hours
8	22-07-2022	Pharmacy and Therapeutic Committee (PTC)
Tutorial-5	26-07-2022	-
9	28-07-2022	Pharmacy and Therapeutic Committee (PTC)
10	29-07-2022	Hospital formulary
Tutorial-6	02-08-2022	Test
11	04-08-2022	Hospital formulary
12	05-08-2022	Hospital committees- Infection committee
13	11-08-2022	Hospital committees- Infection committee
14	12-08-2022	Hospital committees- Research and ethical committee

Tutorial-7	16-08-2022	-
15	18-08-2022	Hospital committees- Research and ethical committee
Tutorial-8	23-08-2022	-
16	25-08-2022	Development of therapeutic guidelines
17	26-08-2022	Development of therapeutic guidelines
Tutorial-9	30-08-2022	-
18	01-09-2022	Hospital pharmacy communication –Newsletter
19	02-09-2022	Hospital pharmacy communication –Newsletter

II SESSIONAL: 16 Lectures + 07 Activities

Lecture No.	Date	Lecture Details
Hospital pharmacy services		12 Hours
Tutorial-1	13-09-2022	-
1	15-09-2022	Procurement & warehousing of drugs and Pharmaceuticals
2	16-09-2022	Procurement & warehousing of drugs and Pharmaceuticals
Tutorial-2	20-09-2022	-
3	22-09-2022	Inventory control: Definition, various methods of Inventory Control ABC
4	23-09-2022	VED, EOQ
Tutorial-3	27-09-2022	-
5	29-09-2022	Lead time and safety stock
6	30-09-2022	Drug distribution in the Hospital: Individual prescription method
7	06-10-2022	Floor stock method
8	07-10-2022	Unit dose drug distribution method
Tutorial-4	11-10-2022	-
9	13-10-2022	Distribution of Narcotic and other controlled substances
10	14-10-2022	Distribution of Narcotic and other controlled substances
Tutorial-5	18-10-2022	-
11	20-10-2022	Central sterile supply services – Role of pharmacist
12	21-10-2022	Central sterile supply services – Role of pharmacist
Manufacture of Pharmaceutical preparations		12 Hours
13	27-10-2022	Sterile formulations – large and small volume parenterals
14	28-10-2022	Sterile formulations – large and small volume parenterals
Tutorial-6	01-11-2022	-
15	03-11-2022	Sterile formulations – large and small volume parenterals
16	04-11-2022	Manufacture of Ointments
Tutorial-7	08-11-2022	-
Activity-1	10-11-2022	Group discussion/Test
Activity-2	11-11-2022	Group discussion/Test
Tutorial-8	15-11-2022	-
Activity-3	17-11-2022	Group discussion/Test

Activity-4	24-11-2022	Group discussion/Test
Activity-5	25-11-2022	Group discussion/Test
Tutorial-9	29-11-2022	-
Activity-6	01-12-2022	Group discussion/Test
Activity-7	02-12-2022	Group discussion/Test

III SESSIONAL: 15 Lectures + 03 Activities

Lecture No.	Date	Lecture Details
Tutorial-1	13-12-2022	-
1	15-12-2022	Manufacture of Liquids
2	16-12-2022	Manufacture of Creams
Tutorial-2	20-12-2022	-
3	22-12-2022	Manufacturing of Tablets, granules
4	23-12-2022	Manufacturing of capsules
5	19-01-2023	Manufacturing of powders
6	20-01-2023	Total parenteral nutrition
Tutorial-3	24-01-2023	-
7	27-01-2023	Total parenteral nutrition
Tutorial-4	31-01-2023	-
8	02-02-2023	Total parenteral nutrition
Continuing professional development programs		02 Hours
9	03-02-2023	CPD- Education and training
Tutorial-5	07-02-2023	
10	09-02-2023	CPD- Education and training
Radio Pharmaceuticals		03 Hours
11	10-02-2023	Radio pharmaceuticals-Introduction
Tutorial-6	14-02-2023	-
12	16-02-2023	Radio pharmaceuticals- Handling
13	17-02-2023	Radio pharmaceuticals- Packing
Tutorial-7	21-02-2023	-
Professional Relations and practices of hospital pharmacist		02 Hours
14	23-02-2023	Professional Relations and practices of hospital pharmacist
Tutorial-8	28-02-2023	-
15	02-03-2023	Professional Relations and practices of hospital pharmacist
Activity-1	03-03-2023	Group discussion/Test
Tutorial-9	07-03-2023	-
Activity-2	09-03-2023	Group discussion/Test
Activity-3	10-03-2023	Group discussion/Test

Text books: (latest editions)

1. Hospital Pharmacy by WilliamE. Hassan
2. A text book of Hospital Pharmacy by S.H.Merchant&Dr.J.S.Qadry. Revised by R.K.Goyal& R.K. Parikh

References:

1. WHO consultative group report.
2. R.P.S. Vol.2. Part –B; Pharmacy Practice section.
3. Handbook of pharmacy – health care. Edt. Robin J Harman. The Pharmaceutical press.

LECTURE PLAN – Practical

SUBJECT : HOSPITAL PHARMACY (PRACTICAL)
NAME OF THE STAFF : Mr VISHWAS HN
DESIGNATION : Lecturer, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: vishwas@jssuni.edu.in Mobile: 9885104372

Sessional	Number of Practical (Mention the Highest Number Amongst Various Batches)	Total Number of Practical Hours (Number of Practical X 3)
I	07	21
II	08	24
III	08	24
Total Number of Practical/Hours	23	69

I SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
	Introduction to Hospital Pharmacy Practicals	27-06-2022	28-06-2022
1.	ABC analysis of a given data – I	04-07-2022	05-07-2022
2.	ABC analysis of a given data – II	11-07-2022	12-07-2022
3.	ABC analysis of a given data – III	18-07-2022	19-07-2022
4.	Drug Information Query – I	25-07-2022	26-07-2022
5.	Drug Information Query – II	01-08-2022	02-08-2022
6.	Drug Information Query- III	08-08-2022	16-08-2022
Repeat	Repetition of missed practicals (If any)/ Test	22-08-2022	23-08-2022
	FIRST SESSIONAL EXAMINATION	29-08-2022	30-08-2022

II SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
7.	Formulary Inclusion Request – I	19-09-2022	13-09-2022
8.	Formulary Inclusion Request – II	26-09-2022	20-09-2022
9.	Formulary Inclusion Request – III	10-10-2022	27-09-2022
10.	Patient Counseling-I	17-10-2022	11-10-2022
11.	Patient Counseling-II	31-10-2022	18-10-2022
12.	Patient Counseling-III	07-11-2022	01-11-2022

13.	Patient Counsellig-IV	14-11-2022	08-11-2022
Repeat	Repetition of missed practicals (If any)/ Test	--	15-11-2022
	SECOND SESSIONAL EXAMINATION	28-11-2022	29-11-2022

III SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
14	Drug Interactions-I	12-12-2022	13-12-2022
15.	Drug Interactions-II	19-12-2022	20-12-2022
16.	Drug Interactions-III	23-01-2023	24-01-2023
17.	Total Parenteral Nutrition	30-01-2023	31-01-2023
18.	Preparation of Dextrose Normal saline	06-02-2023	07-02-2023
19.	Preparation of Ringer's injection USP	13-02-2023	14-02-2023
20.	Preparation of Powders	20-02-2023	21-02-2023
Repeat	Repetition of Missed practicals (If any)/ Comprehensive viva with Record Bonification	27-02-2023	28-02-2023
	THIRD SESSIONAL EXAMINATION	06-03-2023	07-03-2023

LECTURE PLAN – Theory

SUBJECT : CLINICAL PHARMACY (Theory)
FACULTY : DR. SIVASANKARAN PONNUSANKAR
DESIGNATION : Professor & Head, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: drsponnusankar@jssuni.edu.in Mobile: 9489613428

Sessional	Number of Hours of Didactic Lecture	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
I	25	02	31	08
II	27	00	37	12
III	23	05	30	07
Total No. of Hours	75	07	99	27

I SESSIONAL: (25 Lectures + 06 Activities)

Lecture No.	Date	Lecture Details
Unit-1: Introduction to Clinical Pharmacy		05
Hours		
1.	27.06.2022	Orientation to Clinical Pharmacy
2.	28.06.2022	Introduction to Clinical Pharmacy
3.	29.06.2022	Definition and development of clinical pharmacy practice
Tutorial -1	30.06.2022	-
4.	04.07.2022	Definition and development of clinical pharmacy practice
5.	05.07.2022	Scope of clinical pharmacy practice in India and other countries
Unit-2: Introduction to daily activities of Clinical Pharmacist		13
Hours		
1.	06.07.2022	Drug therapy monitoring (medication chart review)
Tutorial -2	07.07.2022	-
2.	11.07.2022	Drug Therapy Monitoring (Clinical Review)
3.	12.07.2022	Drug Therapy Monitoring (Pharmacist intervention)
4.	13.07.2022	Ward round participation
Tutorial -3	14.07.2022	-
5.	18.07.2022	Adverse drug reaction management
6.	19.07.2022	Drug and poison information services – role of pharmacist
7.	20.07.2022	Medication history –introduction (1)

Tutorial -4	21.07.2022	-
8.	25.07.2022	Medication history interview (2)
9.	26.07.2022	Patient counseling
10.	27.07.2022	Drug Utilization Evaluation (DUE)
Tutorial -5	28.07.2022	-
11.	01.08.2022	Drug Utilization Review (DUR)
12.	02.08.2022	Quality assurance of clinical pharmacy services
13.	03.08.2022	Quality assurance of clinical pharmacy services
Tutorial -6	04.08.2022	-
Unit – 3 Patient Data Analysis		03
Hours		
1.	08.08.2022	Patient case history and its structure
2.	10.08.2022	Patient case history in evaluation of drug therapy
Tutorial -7	11.08.2022	-
3.	16.08.2022	Medical abbreviations and terminologies
Unit 8: Pharmaceutical Care concepts		04
Hours		
1.	17.08.2022	Introduction, definition and principles of pharmaceutical care
Tutorial -8	18.08.2022	-
2.	22.08.2022	Principles of pharmaceutical Care
3.	23.08.2022	How to achieve pharmaceutical care plan?
4.	24.08.2022	Pharmacists role in pharmaceutical care
Activity 1	29.08.2022	Group Discussion / Quiz / Other Pedagogy
Activity 2	30.08.2022	Group Discussion / Quiz / Other Pedagogy

II SESSIONAL: (27 Lectures + 10 Activities)

Lecture No.	Date	Lecture Details
Unit 9: Critical Evaluation of Biomedical literature evaluation		09 Hours
1.	14.09.2022	Biomedical literature – an introduction
Tutorial -1	15.08.2022	-
2.	19.09.2022	Biomedical literature – Science and Practice
3.	20.09.2022	Critical appraisal of biomedical literature
4.	21.09.2022	Critical appraisal of biomedical literature
Tutorial -2	22.09.2022	-
5.	26.09.2022	Critical appraisal of primary research papers
6.	27.09.2022	Critical appraisal of primary research papers
7.	28.09.2022	Critical appraisal of therapeutic guidelines
Tutorial -3	29.09.2022	-

Tutorial -4	06.10.2022	-
8.	10.10.2022	Evaluation of biomedical literature
9.	11.10.2022	Evaluation of biomedical literature
Unit 5: Drug and Poison Information Service		07 Hours
1.	12.10.2022	Introduction to drug information service and resources
Tutorial -5	13.10.2022	-
2.	17.10.2022	Drug information - Current practice in India and abroad
3.	18.10.2022	Systematic approach in answering drug information services
4.	19.10.2022	Critical evaluation of drug information and literature
Tutorial -6	20.10.2022	-
5.	26.10.2022	Preparation of written and verbal reports
Tutorial -7	27.10.2022	-
6.	31.10.2022	Establishing a drug information center
7.	01.11.2022	Poison information center – organization and resources
Unit 7: Communication skills		07 Hours
1.	02.11.2022	Introduction, aim and objectives of communication skills
Tutorial -8	03.11.2022	-
2.	07.11.2022	Methods of communication
3.	08.11.2022	Patient counseling techniques
4.	09.11.2022	Medication history interview
Tutorial -9	10.11.2022	-
5.	14.11.2022	Patient adherence assessment
6.	15.11.2022	Patient adherence assessment
7.	16.11.2022	Presentation of cases – counseling session
Tutorial -10	17.11.2022	-
Unit 10: Medication Errors		04 Hours
1.	23.11.2022	Introduction to medication errors and definition
Tutorial -11	24.11.2022	-
2.	28.11.2022	Medication errors – identification and classification
3.	29.11.2022	Medication errors – identification and classification
4.	30.11.2022	Prescription analysis - model
Tutorial -12	01.12.2022	-

III SESSIONAL: (23 Lectures + 08 Activities)

Lecture No.	Date	Lecture Details
Unit 4: Clinical laboratory tests used in the evaluation of disease states and interpretation of test results		16 Hours
1.	12.12.2022	Clinical Laboratory Test – Hematology

2.	13.12.2022	Clinical Laboratory Test - Hematology
3.	14.12.2022	Clinical Laboratory Test – Liver Function
Tutorial -1	15.12.2022	-
4.	19.12.2023	Clinical Laboratory Test – Liver Function
5.	20.12.2023	Clinical Laboratory Test – Renal function
6.	21.12.2023	Clinical Laboratory Test – Renal function
Tutorial -2	22.12.2022	-
7.	18.01.2023	Clinical Laboratory Test – Thyroid function
Tutorial -3	19.01.2023	-
8.	23.01.2023	Clinical Laboratory Test – Tests associated with Cardiac disorders
9.	24.01.2023	Clinical Laboratory Test – Tests associated with Cardiac disorders
10.	25.01.2023	Clinical Laboratory Test – Fluid and electrolyte balance
11.	30.01.2023	Clinical Laboratory Test – Fluid and electrolyte balance
12.	31.01.2023	Clinical Laboratory Test – Microbial culture sensitivity test
13.	01.02.2023	Clinical Laboratory Test – Microbial culture sensitivity test
Tutorial -4	02.02.2023	-
14.	06.02.2023	Clinical Laboratory Test – Pulmonary function test
15.	07.02.2023	Clinical Laboratory Test – Pulmonary function test
16.	08.02.2023	Clinical Laboratory Test – Pulmonary function test
Tutorial -5	09.02.2023	-
Unit 6: Pharmacovigilance		07 Hours
1.	13.02.2023	Introduction – scope, definition and aim of pharmacovigilance
2.	14.02.2023	ADR – classification, mechanism and predisposing factors
3.	15.02.2023	Adverse drug reactions – causality assessment (different scales)
Tutorial -6	16.02.2023	-
4.	20.02.2023	Adverse drug reactions – causality assessment (different scales)
5.	21.02.2023	ADR – reporting, evaluation and monitoring
6.	22.02.2023	ADR – preventing and management
Tutorial -7	23.02.2023	-
7.	27.02.2023	Role of pharmacist in ADR management
Activity 1	28.02.2023	Group Discussion / Quiz / Other Pedagogy
Activity 2	01.03.2023	Group Discussion / Quiz / Other Pedagogy
Activity 3	06.03.2023	Group Discussion / Quiz / Other Pedagogy

Activity 4	07.03.2023	Group Discussion / Quiz / Other Pedagogy
Activity 5	08.03.2023	Group Discussion / Quiz / Other Pedagogy

Text Books

1. Practice standards and definitions: Society of Hospital Pharmacists of Australia (SHPA)
2. Basic skills in interpreting laboratory data - Scott LT, American Society of Health System Pharmacists Inc.
3. Biopharmaceutics and Applied Pharmacokinetics - Leon Shargel, Prentice Hall Publication
4. A text book of Clinical Pharmacy Practice; Essential concepts and skills, Dr. G. Parthasarathi, Karin Nyfort Hansen, Milap Nahata, Orient Longman Pvt. Ltd. ISBN8125026

Reference Books

1. Australian drug information -Procedure manual. The Society of Hospital Pharmacists of Australia.
2. Clinical Pharmacokinetics - Rowland and Tozer, Williams and Wilkins Publication.
3. Pharmaceutical statistics. Practical and clinical applications. Sanford Bolton, Marcel Dekker, Inc.

LECTURE PLAN – Practical

SUBJECT : CLINICAL PHARMACY (Practical)
FACULTY : DR. SIVASANKARAN PONNUSANKAR
DESIGNATION : Professor & Head, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: drsponnusankar@jssuni.edu.in Mobile: 9489613428

Sessional	Number of Practical (Mention the Highest Number Amongst Various Batches)	Total Number of Practical Hours (Number of Practical X 3)
I	06	18
II	10	30
III	08	24
Total Number of Practical/Hours	24	72

I SESSIONAL

Practical no.	Name of the Experiment	Date (s)	
		Batch I	Batch II
1.	Medication chart review	28.06.2022	27.06.2022
2.	Pharmacist intervention	05.07.2022	04.07.2022
3.	Case history activity	12.07.2022	11.07.2022
4.	Medical abbreviation and terminologies – activity	19.07.2022	18.07.2022
5.	Pharmaceutical care plan - preparation on selected diseases	26.07.2022	25.07.2022
6.	Pharmaceutical care plan – preparation on selected diseases	02.08.2022	01.08.2022
I Sessional Examination		30.08.2022	29.08.2022

II SESSIONAL

Practical no.	Name of the Experiment	Date (s)	
		Batch I	Batch II
1.	Biomedical literature evaluation – activity	16.08.2022	08.08.2022
2.	Biomedical literature evaluation – activity	23.08.2022	22.08.2022
3.	Biomedical literature evaluation – activity	13.09.2022	19.09.2022
4.	Biomedical literature evaluation – activity	27.09.2022	26.09.2022

5.	Drug and poison information activity	11.10.2022	10.10.2022
6.	Drug and poison information activity	18.10.2022	17.10.2022
7.	Patient counseling activity	01.11.2022	31.10.2022
8.	Patient counseling activity	08.11.2022	07.11.2022
9.	Prescription analysis – medication error activity	15.11.2022	14.11.2022
10.	Prescription analysis – medication error activity	22.11.2022	21.11.2022
II Sessional Examination		29.08.2022	28.08.2022

III SESSIONAL

Practical no.	Name of the Experiment	Date (s)	
		Batch I	Batch II
1.	Clinical Laboratory Test - activity	13.12.2022	12.12.2022
2.	Clinical Laboratory Test – activity	20.12.2022	19.12.2022
3.	Clinical Laboratory Test – activity	24.01.2023	23.01.2023
4.	Clinical Laboratory Test – activity	31.01.2023	30.01.2023
5.	Clinical Laboratory Test – activity	07.02.2023	06.02.2023
6.	Adverse drug reaction management activity	14.02.2023	13.02.2023
7.	Adverse drug reaction management activity	21.02.2023	20.02.2023
8.	Adverse drug reaction management activity	28.02.2023	27.02.2023
III Sessional Examination		07.03.2023	06.03.2023
Bonification of the Practical Record Note Book		21.03.2022	20.03.2022

LECTURE PLAN – Theory

Name of the Subject	Biostatistics and Research Methodology (Theory)	
Name of the Faculty	Mr. Jayakumar	Mr. Vishwas H N
Designation, Department	Assistant Professor, Department of Pharmacy Practice	Lecturer, Department of Pharmacy Practice
Mobile Number	9443476698	9885104372
e-Mail i.d.	jrccc@jssuni.edu.in	vishwas@jssuni.edu.in

Sessional	Number of Hours of Didactic Lecture		No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Biostatistics	Research Methodology			
I	10	10	02	20	12
II	09	05	04	14	10
III	08	08	04	16	10
Total Number of Hours	27	23	10	50	32

I SESSIONAL: 20 Lectures + 02 Activities

Lecture No.	Date	Lecture Details
Tutorial-1	02-07-2022	Orientation about the subject – Biostatistics
Activity-1	02-07-2022	Orientation about the subject – Biostatistics
Tutorial- 2	09-07-2022	Basics of Statistical concepts- An Overview
Activity-2	09-07-2022	Various methods of calculations – Hands on activity
RESEARCH METHODOLOGY		
Research Methodology		10 Hours
1	28-06-2022	Introduction to subject and basics of 'Research'
2	05-07-2022	Types of clinical study designs: Case studies, observational studies, interventional studies
3	12-07-2022	Types of clinical study designs: Case studies, observational studies, interventional studies
4	19-07-2022	Types of clinical study designs: Case studies, observational studies, interventional studies
5	26-07-2022	Types of clinical study designs: Case studies, observational studies, interventional studies
6	02-08-2022	Designing the methodology
7	16-08-2022	Sample size determination and Power of a study
8	23-08-2022	Determination of sample size for simple comparative

		experiments, determination of sample size to obtain a confidence interval of specified width, power of a study
9	27-08-2022	Determination of sample size for simple comparative experiments, determination of sample size to obtain a confidence interval of specified width, power of a study
10	30-08-2022	Report writing and presentation of data
BIOSTATISTICS		
Introduction		10 Hours
Tutorial-3	16-07-2022	-
1	16-07-2022	Introduction to data distribution
Tutorial-4	23-07-2022	-
2	23-07-2022	Methods of data collection
Tutorial-5	30-07-2022	-
3	30-07-2022	Types of data distribution
Tutorial-6	06-08-2022	-
4	06-08-2022	Measures describing the central tendency distributions-average, median, mode
Tutorial-7	13-08-2022	-
5	13-08-2022	Measures describing the central tendency distributions-average, median, mode
Tutorial-8	20-08-2022	-
6	20-08-2022	Measures describing the central tendency distributions-average, median, mode
Tutorial-9	27-08-2022	Theory class (Vishwas H N)
7	27-08-2022	Measurement of the spread of data-range, mean deviation, standard deviation, variance, coefficient of variation, standard error of mean
Tutorial-10	10-09-2022	-
8	10-09-2022	Measurement of the spread of data-range, mean deviation, standard deviation, variance, coefficient of variation, standard error of mean
Tutorial-11	17-09-2022	
9	17-09-2022	Measurement of the spread of data-range, mean deviation, standard deviation, variance, coefficient of variation, standard error of mean
Tutorial-12	24-09-2022	
10	24-09-2022	Measurement of the spread of data-range, mean deviation, standard deviation, variance, coefficient of variation, standard error of mean

II SESSIONAL: 14 Lectures + 04 Activities

Lecture No.	Date	Lecture Details
BIOSTATISTICS		09 hours
Data graphics		02 Hours
Tutorial-1	01-10-2022	-
11	01-10-2022	Construction and labeling of graphs, histogram, Pie charts, scatter plots, semi-logarithmic graphs
Tutorial-2	08-10-2022	
12	08-10-2022	Construction and labeling of graphs, histogram, Pie charts, scatter plots, semi-logarithmic graphs
Basics of testing hypothesis		07 Hours
Tutorial-3	15-10-2022	Null hypothesis, level of significance
13	15-10-2022	-
Tutorial-4		
14	22-10-2022	Level of significance (Parametric data)- students t test (paired and unpaired)
Tutorial-5	22-10-2022	-
15	29-10-2022	Chi Square test
Tutorial-6	29-10-2022	-
16	05-11-2022	Analysis of Variance (one-way and two-way)
Tutorial-7	05-11-2022	-
17	12-11-2022	Level of significance (Non-parametric data)- Sign test
Tutorial-8	12-11-2022	-
18	26-11-2022	Wilcoxon's signed rank test,
Tutorial-9	21-01-2023	
19	21-01-2023	Wilcoxon rank sum test
Tutorial-10	28-01-2023	
Statistical methods in epidemiology		05
Hours		
1	13-09-2022	Incidence
2	20-09-2022	Prevalence
3	27-09-2022	Relative risk
4	11-10-2022	Attributable risk
5	18-10-2022	Odds ratio
Activity-1	01-11-2022	Problems
Activity-2	08-11-2022	Group discussion/Test
Activity-3	15-11-2022	Group discussion/Test
Activity-4	29-11-2022	Group discussion/Test

III SESSIONAL: 16 Lectures + 04 Activities

Lecture No.	Date	Lecture Details	
Basics of testing hypothesis			08 Hours
20	28-01-2023	Mann Whitney U test	
Tutorial-1	04-02-2023	-	
21	04-02-2023	Kruskal-Wall's test (one way ANOVA)	
Tutorial-2	11-02-2023	-	
22	11-02-2023	Linear regression and correlation- Introduction Pearson's correlation	
Tutorial-3	18-02-2023	-	
23	18-02-2023	Spearman's correlation, correlation co-efficient	
Tutorial-4	25-02-2023	-	
24	25-02-2023	-Introduction to statistical software: SPSS	
Tutorial-5	04-03-2023	-	
Activity -1	04-03-2023	SPSS- Hands on Activity	
Tutorial-6	11-03-2023	-	
25	11-03-2023	Introduction to statistical software: Epi Info	
Tutorial-7	18-03-2023		
Activity -2	18-03-2023	Epi Info – Hands on Activity	
Tutorial-8	25-03-2023		
26	25-03-2023	Introduction to statistical software: SAS.	
Tutorial-9	01-04-2023		
Activity – 3	01-04-2023	SAS- Hands on Activity	
Tutorial-10	08-04-2023		
27	08-04-2023	Practical components of statistical software	
Computer applications in pharmacy			08 hours
Computer System in Hospital Pharmacy			04 hours
1	13-12-2022	Patterns of Computer use in Hospital Pharmacy – Patient record database management	
2	20-12-2022	Medication order entry – Drug labels and list	
3	24-01-2023	Intravenous solution and admixture, patient medication profiles, Inventory control	
4	31-01-2023	Management report & Statistics	
Computer In Community Pharmacy			02 hours
5	07-02-2023	Computerizing the Prescription Dispensing process	
6	14-02-2023	Use of Computers for Pharmaceutical Care in community pharmacy Accounting and General ledger system	
Drug Information Retrieval & Storage			02 Hours
7	21-02-2023	Introduction – Advantages of Computerized Literature Retrieval	
8	28-02-2023	Use of Computerized Retrieval	
Activity-4	07-03-2023	Group discussion/Test	

Reference books:

1. Pharmaceutical statistics- practical and clinical applications, Sanford Bolton 3rd edition, publisher Marcel Dekker Inc. NewYork.
2. Drug Information- A Guide for Pharmacists, Patrick M Malone, Karen L Kier, John E Stanovich , 3rd edition, McGraw Hill Publications 2006
3. Computer Application in Pharmacy- William E. Fassett, Publisher- Lea & Febiger. Philadelphia.

LECTURE PLAN – Theory

SUBJECT : BIOPHARMACEUTICS AND PHARMACOKINETICS (Theory)
FACULTY : Dr. ARUN K P
DESIGNATION : Associate Professor, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: kparun@jssuni.edu.in Mobile: 9994934663

Sessional	Number of Hours of Didactic Lecture		No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Biopharmaceutics	Pharmacokinetics			
I	09	14	05	28	09
II	18	11	02	31	11
III	06	17	01	24	09
Total Number of Hours	33	42	08	83	29

I SESSIONAL (23 Lectures + 05 Activities)

Lecture No.	Date	Lecture Details
BIOPHARMACEUTICS		09
Hours		
Unit-1: Introduction to Biopharmaceutics		01
Hour		
Tutorial -1	29.06.2022	Orientation to the subject
1.	30.06.2022	Introduction to Biopharmaceutics
Unit-2: Absorption of Drug		08
Hours		
5.	01.07.2022	Oral Drug Absorption: Introduction, Rate limiting step in bioavailability, Anatomical and physiological consideration of the GIT
6.	02.07.2022	Introduction to Biopharmaceutics
Tutorial-2	06.07.2022	-
7.	07.07.2022	Carrier mediated transport – active transport, Facilitated diffusion, Ion-pair formation, Pore transport, Endocytosis
8.	08.07.2022	Physiological factors governing GI drug absorption
9.	09.07.2022	Physicochemical factors governing GI drug absorption (cont...)

Tutorial-3	13.07.2022	-
10.	14.07.2022	Formulation factors governing GI drug absorption
11.	15.07.2022	Absorption of drug from Non per OS extra-vascular routes
12.	16.07.2022	Absorption of drug from Non per OS extra-vascular routes (cont...)
PHARMACOKINETICS		14
Hours		
Unit-6: Introduction to Pharmacokinetics		05
Hours		
Tutorial-4	20.07.2022	-
1.	21.07.2022	Introduction, Mathematical model
2.	22.07.2022	Drug levels in blood
3.	23.07.2022	Pharmacokinetic models
Tutorial-5	27.07.2022	Monthly Test
4.	28.07.2022	Compartment models
5.	29.07.2022	Noncompartmental models, Physiological model
Unit-7: One Compartment Open Model		09
Hours		
1.	30.07.2022	Intravenous injection – bolus – plasma data
Tutorial-6	03.08.2022	-
2.	04.08.2022	Intravenous injection – bolus – plasma data (cont...)
3.	05.08.2022	Intravenous injection – bolus – urine data
4.	06.08.2022	Intravenous injection – bolus – urine data (cont...)
Tutorial-7	10.08.2022	-
5.	11.08.2022	Intravenous injection – bolus – urine data (cont...)
6.	12.08.2022	Intravenous injection – infusion – Plasma data
7.	13.08.2022	Intravenous injection – infusion – Plasma data (cont...)
Tutorial-8	17.08.2022	-
8.	18.08.2022	Intravenous injection – infusion – Urine data
9.	20.08.2022	Intravenous injection – infusion – Urine data (cont...)
Tutorial-9	24.08.2022	Monthly Test
Activity 1	25.08.2022	Group Discussion / Quiz / Other Pedagogy
Activity 2	26.08.2022	Group Discussion / Quiz / Other Pedagogy
Activity 3	27.08.2022	Group Discussion / Quiz / Other Pedagogy
Activity 4	01.09.2022	Group Discussion / Quiz / Other Pedagogy
Activity 5	02.09.2022	Group Discussion / Quiz / Other Pedagogy

II SESSIONAL (29 Lectures + 02 Activities)

BIOPHARMACEUTICS			18
Hours			
Unit-3: Distribution of Drugs (Cont...)			08
Hours			
Tutorial-1	14.09.2022	-	
1.	15.09.2022	Tissue permeability of drugs, Binding of drugs	
2.	16.09.2022	Apparent volume of distribution	
Tutorial- 2	21.09.2022	-	
3.	22.09.2022	Apparent volume of distribution (cont...)	
4.	23.09.2022	Protein binding of drugs, factors Affecting protein – drug binding	
5.	24.09.2022	Kinetics of protein binding	
Tutorial- 3	28.09.2022	-	
6.	29.09.2022	Kinetics of protein binding (cont...)	
7.	30.09.2022	Clinical significance of protein – drug binding	
8.	01.10.2022	Clinical significance of protein – drug binding (Cont...)	
Unit-5: Bioavailability and Bioequivalence			10
Hours			
9.	06.10.2022	Introduction, Objectives of Bioavailability studies, Relative and Absolute Bioavailability, Bioavailability study protocol	
10.	07.10.2022	Bioequivalence studies	
11.	08.10.2022	Bioequivalence studies (cont...)	
Tutorial-4	12.10.2022	-	
12.	13.10.2022	Methods of assessment of bioavailability	
13.	14.10.2022	Methods to enhance bioavailability	
14.	15.10.2022	Methods to enhance bioavailability (cont...)	
Tutorial-5	19.10.2022	-	
15.	20.10.2022	in-vitro drug dissolution: mechanisms (theories) of dissolution, measurement of dissolution rates	
16.	21.10.2022	Official and unofficial methods of dissolution, control of variables in dissolution testing	
17.	22.10.2022	<i>in-vitro</i> and <i>in-vivo</i> Correlation, limitations of dissolution test	
Tutorial-6	26.10.2022	Monthly Test	
18.	27.10.2022	Factors influencing the rate of dissolution	
PHARMACOKINETICS			11
Hours			
Unit-7: One Compartment Open Model: (cont...)			06
Hours			

1.	28.10.2022	Extravascular administration
2.	29.10.2022	Extravascular administration (cont...)
Tutorial-7	02.11.2022	-
3.	03.11.2022	Extravascular administration (cont...)
4.	04.11.2022	Extravascular administration (cont...)
5.	05.11.2022	Extravascular administration (cont...)
Tutorial-8	09.11.2022	-
6.	10.11.2022	Extravascular administration (cont...)
Unit-10: Nonlinear Pharmacokinetics		05
Hours		
1.	11.11.2022	Introduction, Factors causing non-linearity
2.	12.11.2022	Michaelis - Menton method of estimating parameters
Tutorial-9	16.11.2022	-
3.	17.11.2022	Michaelis - Menton method of estimating parameters (cont...)
Tutorial-10	23.11.2022	-
4.	24.11.2022	Michaelis - Menton method of estimating parameters (cont...)
5.	25.11.2022	Michaelis - Menton method of estimating parameters (cont...)
Tutorial-11	30.11.2022	Monthly Test
Activity 1	01.12.2022	Group Discussion / Quiz / Other Pedagogy
Activity 2	02.12.2022	Group Discussion / Quiz / Other Pedagogy

III SESSIONAL (19 Lectures + 01 Activities)

BIOPHARMACEUTICS		06
Hours		
Unit-4: Drug Elimination		06
Hours		
Tutorial-1	14.12.2022	-
1.	15.12.2022	Biotransformation of drugs
2.	16.12.2022	Biotransformation of drugs (cont...)
3.	17.12.2022	Renal excretion of dugs
Tutorial-2	21.12.2022	-
4.	22.12.2022	Factors affecting renal excretion of dugs
5.	23.12.2022	Renal clearance
6.	19.01.2023	Non renal routes of excretion of drugs
PHARMACOKINETICS		17
Hours		
Unit-9: Multiple - Dosage Regimens		05
Hours		

1.	20.01.2023	Repetitive intravenous injections – One compartment open model
2.	21.01.2023	Repetitive intravenous injections – One compartment open model (cont...)
Tutorial-3	25.01.2023	Monthly Test
3.	27.01.2023	Repetitive extravascular dosing – One compartment open model
4.	28.01.2023	Repetitive extravascular dosing – One compartment open model (cont...)
Tutorial-4	01.02.2023	-
5.	02.02.2023	Multiple Dosage Regimen – Two compartment open model
Unit-8: Multicompartment Models		08
Hours		
11.	03.02.2023	Two compartment open model – i.v. bolus (cont.)
Tutorial-5	08.02.2023	-
12.	09.02.2023	Two compartment open model – i.v. bolus (cont.)
13.	10.02.2023	Two compartment open model – i.v. bolus (cont.)
14.	11.02.2023	Two compartment open model – i.v. infusion (cont.)
Tutorial-6	15.02.2023	-
15.	16.02.2023	Two compartment open model – i.v. infusion (cont.)
16.	17.02.2023	Two compartment open model – oral administration
17.	18.02.2023	Two compartment open model – oral administration (contd.)
Tutorial-7	22.02.2023	Monthly Test
18.	23.02.2023	Two compartment open model – oral administration (contd.)

Unit-11: Noncompartmental Pharmacokinetics		04
Hours		
Tutorial-8	01.03.2022	-
1.	02.03.2022	Introduction, Statistical Moment Theory
2.	03.03.2022	Mean Residence Time (MRT) for various compartment models
3.	04.03.2022	Mean Residence Time (MRT) for various compartment models (cont...)
Tutorial-9	08.03.2022	-
4.	09.03.2022	Physiological pharmacokinetic model
Activity-1	10.03.2022	Group Discussion / Quiz / Other Pedagogy

Text Books

1. Biopharmaceutics and Clinical Pharmacokinetics by, Milo Gibaldi.
2. Biopharmaceutics and Pharmacokinetics; By Robert F Notari.
3. Applied biopharmaceutics and pharmacokinetics, Leon Shargel and Andrew B.C.YU 4th edition, Prentice-Hall International edition.USA.
4. Biopharmaceutics and Pharmacokinetics-A Treatise, By D. M. Brahmankar and Sunil B.Jaiswal, Vallabh Prakashan Pitampura, Delhi.
5. Biopharmaceutics and Pharmacokinetics, V Venkateswarulu, Pharma Book Syndicate.

Reference Books

1. Pharmacokinetics: By Milo Gibaldi Donald, R. Mercei Dekker Inc.
2. Hand Book of Clinical Pharmacokinetics, By Milo Gibaldi and Laurie Prescott by ADIS Health Science Press.
3. Biopharmaceutics; By Swarbrick.
4. Clinical Pharmacokinetics, Concepts and Applications: By Malcolm Rowland and Toezer.
5. Thomas, N. Tozen, Lea and Febrger, Philadelphia, 1995.
6. Dissolution, Bioavailability and Bioequivalence, By Abdou H.M, Mack, Publishing Company, Pennsylvania 1989.
7. Biopharmaceutics and Clinical Pharmacokinetics-An introduction 4th edition Revised and expanded by Robert F Notari Marcel Dekker Inc, New York and Basel, 1987.
8. Remington's Pharmaceutical Sciences, By Mack Publishing Company, Pennsylvania

LECTURE PLAN - Practical

SUBJECT : BIOPHARMACEUTICS AND PHARMACOKINETICS (Practical)
NAME OF THE STAFF : Dr. ARUN K P
DESIGNATION : Associate Professor, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: kparun@jssuni.edu.in Mobile: 9994934663

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

I SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
8.	Introduction to Buffers, Solubility Characteristics of Drugs	01.07.2022	30.06.2022
9.	Improvement of dissolution characteristics of poorly soluble drugs by co-solvency	08.07.2022	07.07.2022
10.	Improvement of dissolution characteristics of poorly soluble drugs by co-solvency (Cont...)	15.07.2022	14.07.2022
11.	Improvement of dissolution characteristics of poorly soluble drugs by solid dispersion	22.07.2022	21.07.2022
12.	Improvement of dissolution characteristics of poorly soluble drugs by solid dispersion (Cont...)	29.07.2022	28.07.2022
13.	Improvement of dissolution characteristics of poorly soluble drugs by use of surfactant	05.08.2022	04.08.2022
14.	PK Parameters Estimation : One Compartment Open Model - i.v. Bolus - Unchanged Drug in Blood	12.08.2022	11.08.2022
Repeat	Repeatation of missed practicals if any	-	18.08.2022
15.	PK Parameters Estimation : One Compartment Open Model - i.v. Bolus - Unchanged Drug in Urine	26.08.2022	25.08.2022
I Sessional Examination		02.09.2022	01.09.2022

II SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
11.	Comparison of dissolution studies of two different marketed products of same drug.	16.09.2022	15.09.2022
12.	Comparison of dissolution studies of two different marketed products of same drug. (Cont...)	23.09.2022	22.09.2022
13.	Influence of polymorphism on solubility and dissolution	30.09.2022	29.09.2022
14.	Influence of polymorphism on solubility and dissolution (Cont...)	07.10.2022	06.10.2022
15.	PK Parameters Estimation : One Compartment Open Model – IV Infusion - Unchanged Drug in Blood	14.10.2022	13.10.2022
16.	PK Parameters Estimation : One Compartment Open Model - Extravascular Administration - Unchanged Drug in Blood	21.10.2022	20.10.2022
17.	PK Parameters Estimation : One Compartment Open Model - Extravascular Administration - Unchanged Drug in Urine	28.10.2022	27.10.2022
18.	PK Parameters Estimation : Drugs following Non-linear pharmacokinetics	04.11.2022	03.11.2022
19.	Determination of Bioavailability and Bioequivalence	11.11.2022	10.11.2022
Repeat	Repeatation of missed practicals if any	-	17.11.2022
20.	Determination of Bioavailability and Bioequivalence (Cont...)	25.11.2022	24.11.2022
SECOND SESSIONAL EXAMINATION		02.12.2022	01.12.2022

III SESSIONAL

Practical No.	Name of the Experiment	Date(s)	
		Batch I	Batch II
7.	Protein binding studies of a drug	16.12.2022	15.12.2022
8.	Protein binding studies of a drug (Cont...)	23.12.2022	22.12.2022
9.	PK Parameters Estimation Non Compartmental pharmacokinetics	20.01.2023	19.01.2023
Repeat	Repeatation of missed practicals if any	27.01.2022	-
10.	PK Parameters Estimation Using Software	03.02.2023	02.02.2023
11.	PK Parameters Estimation Using Software	10.02.2023	09.02.2023
12.	PK Parameters Estimation Using Software	17.02.2023	16.02.2023
Repeat	Repeatation of missed practicals if any	-	23.02.2023
THIRD SESSIONAL EXAMINATION		03.03.2022	02.03.2022
Bonification of the Practical Record Note Book		10.03.2022	09.03.2022

LECTURE PLAN – Theory

SUBJECT : Clinical Toxicology (Theory)
FACULTY : Dr. Swathi Swaroopa B
DESIGNATION : Assistant Professor, Department of Pharmacy Practice
CONTACT DETAILS : E- Mail: swasasree@jssuni.edu.in Mobile: 9629547089

Sessional	Number of Hours of Didactic Lecture	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
I	16	03	19	09
II	19	04	23	10
III	15	04	19	06
Total Number of Hours	50	11	61	25

I SESSIONAL (16 Lectures + 03 Activities)

Lecture No.	Date	Lecture Details
1.	29.06.2022	Orientation on Clinical Toxicology
2.	30.06.2022	General principles involved in the management of poisoning
Tutorial-1	02.07.2022	-
3.	06.07.2022	General principles involved in the management of poisoning
4.	07.07.2022	Antidotes and the clinical applications
Tutorial-2	09.07.2022	-
5.	13.07.2022	Supportive care in clinical Toxicology
6.	14.07.2022	Supportive care in clinical Toxicology
Tutorial-3	16.07.2022	-
7.	20.07.2022	Gut Decontamination
8.	21.07.2022	Gut Decontamination
Tutorial-4	23.07.2022	-
9.	27.07.2022	Elimination Enhancement
10.	28.07.2022	Toxicokinetics
Tutorial-5	30.07.2022	Monthly Class Test-1
11.	03.08.2022	Toxicokinetics
12.	04.08.2022	Organophosphorous poisoning
Tutorial-6	06.08.2022	-
Clinical symptoms and management of acute poisoning with the following agents		
13.	10.08.2022	Organophosphorous poisoning

14.	11.08.2022	Carbamates poisoning
Tutorial-7	13.08.2022	-
15.	17.08.2022	Organochlorines poisoning, Pyrethroid poisoning
16.	18.08.2022	Opioid Poisoning/Over dose
Tutorial-8	20.08.2022	-
Activity 1	24.08.2022	Case Based Learning of OP Poisoning
Activity 2	25.08.2022	Case Based Learning of Pyrethroid Poisoning
Tutorial-9	27.08.2022	Monthly Class Test-2
Activity 3	01.09.2022	ViVa on completed topics

II SESSIONAL (19 Lectures + 04 Activities)

1.	14.09.2022	Antidepressants
2.	15.09.2022	Antidepressants
Tutorial-1	17.09.2022	-
3.	21.09.2022	Antidepressants
4.	22.09.2022	Barbiturates and benzodiazepines
Tutorial-2	24.09.2022	-
5.	28.09.2022	Barbiturates and benzodiazepines
6.	29.09.2022	Alcohol: Ethanol
Tutorial-3	1.10.2022	Monthly Class Test-3
7.	6.10.2022	Alcohol: Ethanol
Tutorial-4	8.10.2022	-
8.	12.10.2022	Alcohol: Methanol
9.	13.10.2022	Paracetamol and salicylates
Tutorial-5	15.10.2022	-
10.	19.10.2022	Paracetamol and salicylates
11.	20.10.2022	Non-steroidal anti-inflammatory drugs
Tutorial-6	22.10.2022	-
12.	26.10.2022	Non-steroidal anti-inflammatory drugs
13.	27.10.2022	Hydrocarbons: Petroleum products and PEG
Tutorial-7	29.10.2022	Monthly Class Test-4
14.	02.11.2022	Caustics: inorganic acids and alkali.
15.	03.11.2022	Caustics: inorganic acids and alkali.
Tutorial-8	05.11.2022	-
Clinical symptoms and management of chronic poisoning with the following agents – Heavy metals		
16.	09.11.2022	Radiation poisoning
17.	10.11.2022	Arsenic
Tutorial-9	12.11.2022	-

18.	16.11.2022	Lead
19.	17.11.2022	Mercury, Copper
Activity 1	23.11.2022	Case-based learning
Activity 2	24.11.2022	Problem-based learning
Tutorial-10	26.11.2022	Monthly Class Test-5
Activity 3	30.11.2022	Quiz
Activity 4	01.12.2022	Mind Mapping

III SESSIONAL (15 Lectures + 04 Activities)

1.	14.12.2022	Iron
2.	15.12.2022	Families of venomous snakes, clinical effects of venoms, general management as first aid, early manifestations, complications and snake bite injuries.
Tutorial-1	17.12.2022	-
3.	21.12.2022	Families of venomous snakes, clinical effects of venoms, general management as first aid, early manifestations, complications and snake bite injuries.
4.	22.12.2022	Plants poisoning. Mushrooms, Mycotoxins
5.	18.01.2023	Plants poisoning. Mushrooms, Mycotoxins
6.	19.01.2023	Food poisonings
Tutorial-2	21.01.2023	-
7.	25.01.2023	Envenomations – Arthropod bites and stings
Tutorial-3	28.01.2023	Monthly Class Test-6
Substance abuse: Signs and symptoms of substance abuse and treatment of dependence-		
8.	01.02.2023	CNS stimulants :Amphetamine
9.	02.02.2023	Opioids
10.	08.02.2023	CNS depressants
11.	09.02.2023	CNS depressants
Tutorial-4	11.02.2023	-
12.	15.02.2023	Hallucinogens: LSD
13.	16.02.2023	Cannabis group
Tutorial-5	18.02.2023	-
14.	22.02.2023	Cannabis group
15.	23.02.2023	Tobacco
Activity 1	01.03.2023	Case-based learning

Activity 2	02.03.2023	Problem-based learning
Tutorial-6	04.03.2023	Monthly Class Test-7
Activity 3	08.03.2023	Revision
Activity 4	09.03.2023	Revision

Text Books

6. Matthew J Ellenhorn. ELLENHORNS MEDICAL TOXICOLOGY – DIAGNOSIS AND TREATMENT OF POISONING. Second edition. Williams and Wilkins publication, London
7. b. V V Pillay. HANDBOOK OF FORENSIC MEDICINE AND TOXICOLOGY. Thirteenth edition 2003 Paras Publication, Hyderabad

LECTURE PLAN – Theory

SUBJECT : Pharmacotherapeutics I & II (Theory)
FACULTY : Dr. Roopa B S
DESIGNATION : Assistant Professor, Department of Pharmacy Practice
CONTACT DETAILS : E-Mail: roopbs@jssuni.edu.in Mobile: 9047155003

Sessional	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Pharmacotherapeutics I & II		
I	-	13	-
II	-	29	09
III	-	33	02
Total Number of Hours	-	75	11

I SESSIONAL: 13 Lectures

Lecture No.	Date	Lecture Details	
Cardiovascular System			13 Hours
1	06.08.2022	Hypertension	
2	08.08.2022	Hypertension	
3	08.08.2022	Congestive cardiac failure	
4	12.08.2022	Congestive cardiac failure Contd.	
5	13.08.2022	Angina Pectoris	
6	20.08.2022	Angina Pectoris Contd.	
7	22.08.2022	Myocardial infarction	
8	26.08.2022	Myocardial infarction Contd.	
9	27.08.2022	Hyperlipidemia	
10	29.08.2022	Hyperlipidemia Contd.	
11	29.08.2022	Arrhythmias.	
12	02.09.2022	Electrophysiology of heart	
13	02.09.2022	Arrhythmias.	
	03.09.2023	I sessional exam	

II SESSIONAL: 29 Lectures

Lecture No.	Date	Lecture Details	
Respiratory system			06 Hours
Tutorial -1	16.09.2022	-	
1	17.09.2022	Introduction to Pulmonary function test	
2	19.09.2022	Asthma	
3	19.09.2022	Asthma Contd.	
Tutorial -2	23.09.2022	-	

4	24.09.2022	Chronic obstructive airways disease
5	26.09.2022	Chronic obstructive airways disease Contd.
6	26.09.2022	Drug induced pulmonary diseases Contd
Tutorial -3	30.09.2022	-
Endocrine system		08 Hours
7	01.10.2022	Diabetes
8	01.10.2022	Diabetes Contd.
Tutorial-4	07.10.2022	
9	08.10.2022	Diabetes Contd.
10	10.10.2022	Thyroid diseases
11	10.10.2022	Thyroid diseases Contd.
Tutorial-5	14.10.2022	-
12	15.10.2022	Oral contraceptives
13	17.10.2022	Hormone replacement therapy
14	17.10.2022	Osteoporosis
Tutorial-6	21.10.2022	-
General prescribing guidelines		04 Hours
15	22.10.2022	Paediatrics
Tutorial-7	28.10.2022	-
16	29.10.2022	Geriatric patients
17	31.10.2022	Pregnancy and breastfeeding
Ophthalmology		03 Hours
18	31.10.2022	Glaucoma,
Tutorial-8	04.11.2022	-
19	05.11.2022	Conjunctivitis- viral and bacterial
Introduction to rational drug use		02 Hours
20	07.11.2022	Definition, Role of pharmacist Essential drug concept Rational drug formulations
21	07.11.2022	Guidelines for the rational use of antibiotics and surgical Prophylaxis,
Tutorial-9	11.11.2022	-
Infectious disease		18 Hours
22	12.11.2022	Tuberculosis
23	14.11.2022	Tuberculosis Contd.
24	14.11.2022	Meningitis
25	25.11.2022	Meningitis
26	26.11.2022	Respiratory tract infections
27	28.11.2022	Respiratory tract infections
28	28.11.2022	Gastroenteritis
29	02.12.2022	Gastroenteritis
	03.12.2022	II Sessional exam

III SESSIONAL: 33 Lectures

Lecture No.	Date	Lecture Details
1	12.12.2022	Endocarditis
2	12.12.2022	Septicaemia
3	16.12.2022	Urinary tract infections
4	17.12.2022	Malaria
5	19.12.2022	Gonorrhoea
6	19.12.2022	Syphilis
7	23.12.2022	Viral infections
8	20.01.2023	Viral infections
9	21.01.2023	HIV & Opportunistic infections
10	23.01.2023	HIV & Opportunistic infections
Musculoskeletal disorders		06 Hours
11	23.01.2023	Rheumatoid arthritis
12	27.01.2023	Osteoarthritis
13	28.01.2023	Osteoarthritis
14	30.01.2023	Gout
15	30.01.2023	Spondylitis
16	03.02.2023	Systemic lupus erythematosus
Renal System		05 Hours
17	06.02.2023	Acute Renal Failure
18	06.02.2023	Acute Renal Failure
19	10.02.2023	Chronic Renal Failure
20	11.02.2023	Chronic Renal Failure
21	13.02.2023	Renal Dialysis
22	13.02.2023	Drug induced renal disorders
Oncology		06 Hours
23	17.02.2023	-
24	18.02.2023	Basic principles of Cancer therapy
25	20.02.2023	General introduction to cancer chemotherapeutic agents
26	20.02.2023	Chemotherapy of breast cancer
27	27.02.2023	Leukaemia
28	27.02.2023	Leukaemia
29	03.03.2022	Management of chemotherapy nausea and emesis.
Dermatology		04 Hours
30	04.03.2022	Psoriasis
31	06.03.2022	Scabies
32	06.03.2022	Eczema
33	10.03.2022	Impetigo
	13.03.2022	III sessional exam

Reference Books

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

LECTURE PLAN - Practical

SUBJECT : Pharmacotherapeutics I & II (Practical)
NAME OF THE STAFF : Dr. Roopa B S
DESIGNATION : Assistant Professor, Department of Pharmacy Practice
CONTACT DETAILS : E-Mail: roopabs@jssuni.edu.in Mobile: 9047155003

Sessional	Number of Practical (Mention the Highest Number Amongst Various Batches)	Total Number of Practical Hours (Number of Practical X 3)
I	09	15
II	09	21
III	08	21
Total Number of Practical/Hours	26	78

I SESSIONAL

Practical No.	Name of the Experiment	Date(s)
16.	Case 1	10.08.2022
17.	Case 1	17.08.2022
18.	Case 2	24.08.2022
19.	Case 2	27.08.2022
	I Sessional Examination (Theory)	03.09.2022
20.	Case 3	14.09.2022
21.	Case 4	21.09.2022
22.	Case 4	24.09.2022
23.	Case 5	28.09.2022
24.	II Sessional Examination (PRACTICAL)	12.10.2022

II SESSIONAL

Practical No.	Name of the Experiment	Date(s)
1.	Case 6	19.10.2022
2.	Case 7	26.10.2022
3.	Case 8	02.11.2022
4.	Case 8	09.11.2022
5.	Case 9	16.11.2022
6.	Case 9	23.11.2022

7.	Case 10	30.11.2022
	II Sessional Examination (Theory)	03.12.2022
8.	Case 10	14.12.2022
	II Sessional Examination (Practical)	21.12.2022

III SESSIONAL

Practical No.	Name of the Experiment	Date(s)
1.	Case 11	18.01.2023
2.	Case 12	25.01.2023
3.	Case 13	01.02.2023
4.	Case 14	08.02.2023
5.	Case 14	15.02.2023
6.	Case 15	22.02.2023
7.	Case 15	01.03.2023
	III sessional (PRACTICAL) and Bonification of the Practical Record Notebook	08.03.2022
8.	III sessional (Theory)	13.03.2022