

## LECTURE PLAN – Theory

**SUBJECT** : Clinical Research (Theory)  
**FACULTY** : Dr. Roopa B S  
**DESIGNATION** : Assistant Professor, Department of Pharmacy Practice  
**CONTACT DETAILS** : E-Mail: [roopbs@jssuni.edu.in](mailto:roopbs@jssuni.edu.in) Mobile: 9047155003

Sessional	No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Clinical Research		
I	03	25	08
II	04	30	08
III	08	20	07
<b>Total Number of Hours</b>	15	75	23



### I SESSIONAL (25 Lectures + 03 Activities)

Lecture No.	Date	Lecture Details
<b>Drug development process</b>		<b>05 Hours</b>
Activity 1	29.06.2022	Orientation
1	30.06.2022	Pharmacological
2	01.07.2022	Pharmacological Contd.
Tutorial-1	04.07.2022	-
3	06.07.2022	Pharmacological Contd.
4	07.07.2022	Toxicological.
5	08.07.2022	Toxicological Contd.
Tutorial-2	11.07.2022	-
6	13.07.2022	IND Application
7	14.07.2022	IND Application Contd.
8	15.07.2022	Drug characterization
Tutorial-3	18.07.2022	
9	20.07.2022	Drug characterization Contd.
10	21.07.2022	Dosage form
11	22.07.2022	Introduction to Clinical trials
Tutorial-4	25.07.2022	<b>Monthly test</b>
<b>Clinical development of drug</b>		<b>70 Hours</b>
12	27.07.2022	Introduction to Clinical trials
13	28.07.2022	Various phases of clinical trial
14	29.07.2022	Various phases of clinical trial Contd.
Tutorial-5	01.08.2022	-
15	03.08.2022	Various phases of clinical trial Contd.

16	04.08.2022	Various phases of clinical trial Contd.
Activity-2	05.08.2022	-
Tutorial-6	08.08.2022	-
17	10.08.2022	Abbreviated New Drug Application submission
18	11.08.2022	Abbreviated New Drug Application Submission Contd.
19	12.08.2022	Methods of post-marketing surveillance.
20	17.08.2022	Methods of post-marketing surveillance.
21	18.08.2022	Methods of post-marketing surveillance Contd.
Tutorial-7	22.08.2022	
22	24.08.2022	Good Clinical Practice – ICH, GCP
23	25.08.2022	Good Clinical Practice – ICH, GCP
24	26.08.2022	Good Clinical Practice – ICH, GCP
Tutorial-8	29.08.2022	<b>Monthly Test</b>
25	01.09.2022	Good Clinical Practice – ICH, GCP Contd.
Activity-3	02.09.2022	-
	<b>05.09.2022</b>	<b>I sessional examination</b>

## II SESSIONAL (30 Lectures + 04 Activities)

Lecture No.	Date	Lecture Details
1	14.09.2022	Central drug standard control organization (CDSCO) guidelines Contd.
2	15.09.2022	Ethical guidelines in Clinical Research
3	16.09.2022	Composition, responsibilities, and procedures of IRB / IEC
Tutorial-1	19.09.2022	-
4	21.09.2022	Composition, responsibilities, procedures of IRB / IEC Contd.
5	22.09.2022	Overview of the regulatory environment in USA.
6	23.09.2022	Overview of the regulatory environment in USA Contd.
Tutorial-2	26.09.2022	<b>Monthly Test</b>
7	28.09.2022	Overview of the regulatory environment in Europe
8	29.09.2022	Over the view of the regulatory environment in Europe Contd.
9	30.09.2022	Overview of the regulatory environment in Europe Contd.
10	06.10.2022	Overview of the regulatory environment in India
11	06.10.2022	Overview of the regulatory environment in India
Tutorial-3	10.10.2022	-
12	12.10.2022	Overview of the regulatory environment in India
13	13.10.2022	Overview of the regulatory environment in India

14	14.10.2022	Overview of the regulatory environment in India Contd.
Tutorial-4	17.10.2022	
15	19.10.2022	Overview of the regulatory environment in India Contd.
16	20.10.2022	Overview of the regulatory environment in India Contd.
17	21.10.2022	Sponsor
18	26.10.2022	Sponsor Contd.
19	27.10.2022	Sponsor Contd.
20	28.10.2022	Sponsor Contd.
Tutorial-5	31.10.2022	<b>Monthly test</b>
21	02.11.2022	Sponsor Contd.
22	03.11.2022	Sponsor Contd.
23	04.11.2022	Regulatory authority.
Tutorial-6	07.11.2022	-
24	09.11.2022	Regulatory authority Contd.
25	10.11.2022	Clinical research associate
26	11.11.2022	Clinical research associate Contd.
Tutorial-7	14.11.2022	-
Activity-1	16.11.2022	-
Activity-2	17.11.2022	-
27	23.11.2022	Auditors
28	24.11.2022	Auditors Contd.
29	25.11.2022	Auditors Contd.
Tutorial-8	28.11.2022	<b>Monthly test</b>
30	30.11.2022	Auditors Contd.
Activity -3	01.12.2022	-
Activity-4	01.12.2022	-
	<b>05.12.2022</b>	<b>II sessional examination</b>

### III SESSIONAL (20 Lectures + 08 Activities)

Date	Day	Lecture Details
Tutorial-1	12.12.2022	-
1	14.12.2022	Auditors Contd.
2	15.12.2022	Auditors Contd.
3	16.12.2022	Investigators
Tutorial-2	19.12.2022	-
4	21.12.2022	Investigators Contd.
5	22.12.2022	Investigators Contd.
6	23.12.2022	Challenges in the implementation of guidelines
7	19.01.2023	Challenges in the implementation of guidelines Contd.
8	20.01.2023	Challenges in the implementation of guidelines Contd.
Tutorial-2	23.01.2023	-

9	25.01.2023	Designing of clinical study documents –protocol Contd.
10	27.01.2023	Designing of clinical study documents – CRF
Tutorial-3	30.01.2023	<b>Monthly test</b>
11	01.02.2023	Designing of clinical study documents – CRF Contd.
12	02.02.2023	Designing of clinical study documents – ICF Contd.
Activity-1	03.02.2023	-
Tutorial-4	06.02.2023	-
14	08.02.2023	Designing of clinical study documents – PIC
15	09.02.2023	Informed consent Process Contd.
16	10.02.2023	Informed consent Process Contd.
Tutorial-5	13.02.2023	-
17	15.02.2023	Data management and its components
18	16.02.2023	Data management and its components Contd.
Activity-2	17.02.2023	-
Tutorial-6	20.02.2023	-
Activity-3	21.02.2023	-
Activity-4	22.02.2023	
19	27.02.2023	Safety monitoring in clinical trials.
20	01.03.2023	Safety monitoring in clinical trials Contd.
Activity-5	02.03.2023	-
Activity-6	03.03.2023	-
Tutorial-7	06.03.2023	-
Activity-6	08.03.2023	<b>Monthly test</b>
Activity-7	09.03.2023	-
Activity-8	10.03.2023	-
	<b>24.03.2023</b>	<b>III sessional</b>

### Textbooks:

1. Principles and practice of pharmaceutical medicine, Second edition. Authors: Lionel. D.Edward, Aadrew.J.Fletcher Anthony W Fos, Peter D Sloaier Publisher: Wiley;
2. Handbook of clinical research. Julia Lloyd and Ann Raven Ed. Churchill Livingstone
3. Principles of Clinical Research edited by Giovanna di Ignazio, Di Giovanna and Haynes.

### Reference Books

1. Central Drugs Standard Control Organization. Good Clinical Practices-Guidelines for Clinical Trials on Pharmaceutical Products in India. New Delhi: Ministry of Health; 2001.
2. International Conference on Harmonisation of Technical requirements for registration of Pharmaceuticals for human use. ICH Harmonised Tripartite Guideline. Guideline for Good Clinical Practice.E6; May 1996.
3. Ethical Guidelines for Biomedical Research on Human Subjects 2000. Indian Council of Medical Research, New Delhi.
4. Textbook of Clinical Trials edited by David Machin, Simon Day and Sylvan Green, March 2005, John Wiley and Sons.
5. Principles of Clinical Research edited by Giovanna di Ignazio, Di Giovanna and Haynes.
6. Clinical Data Management edited by R K Rondels, S A Varley, C F Webbs. Second Edition, Jan 2000, Wiley Publications.
7. Goodman & Gilman: JG Hardman, LE Limbard, 10th Edn. McGraw Hill Publications, 2001.

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## LECTURE PLAN – Theory

**SUBJECT** : PHARMACOEPIDEMOLOGY AND PHARMACOECONOMICS(Theory)  
**FACULTY** : Dr SADAGOBAN G K  
**DESIGNATION** : Assistant Professor, Department of Pharmacy Practice  
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Sessional	Number of Hours of Didactic Lecture		No of Hours of other Pedagogy	Total Number of Lecture Hours	Tutorial Classes
	Pharmacoepidemiology	Pharmacoeconomics			
I	25	-	-	25	04
II	14	-	01	14	10
III	-	38	08	36	16
<b>Total Number of Hours</b>	<b>39</b>	<b>38</b>	<b>09</b>	<b>75</b>	<b>30</b>

### I SESSIONAL (25 Lectures + 0 Activities)

Lecture No.	Date	Lecture Details
<b>Pharmacoepidemiology</b>		<b>25 Hours</b>
<b>Unit-1: Definition and scope</b>		<b>04 Hours</b>
1.	04/07/22	Orientation to the subject
2.	05/07/22	Origin and evaluation of Pharmacoepidemiology
3.	06/07/22	Need of Pharmacoepidemiology
Tutorial 1	07/07/22	-
4.	11/07/22	Aims and Applications of Pharmacoepidemiology.
<b>Unit-2: Measurement of outcomes in pharmacoepidemiology</b>		<b>06 Hours</b>
1.	12/07/22	Introduction to Outcome Measures
2.	13/07/22	Prevalance, Incidence, Incidence Rate
Tutorial 2	14/07/22	-
3.	18/07/22	Monetary Units, Number of Prescriptions, Units of Drugs Dispensed
4.	19/07/22	Defined Daily Dose (DDD)
5.	20/07/22	Prescribed Daily Dose ( PDD)
Tutorial 3	21/07/22	-

6.	25/07/22	Medication Adherence Measurements
<b>Unit-3: Concept of risk in pharmacoepidemiology</b>		<b>05 Hours</b>
1.	26/07/22	Measurement of risk
2.	27/07/22	Attributable risk
<b>Tutorial 4</b>	<b>28/07/22</b>	<b>Monthly test</b>
3.	01/08/22	Relative risk
4.	02/08/22	Time-risk relationship
5.	03/08/22	Odds Ratio
<b>II Sessional (14 Lectures + 01 Activities)</b>		
<b>Unit-4 Pharmacoepidemiological methods</b>		<b>14 hours</b>
Tutorial 1	04/08/22	-
1.	08/08/22	Theoretical aspects of various methods with the help of case studies of individual methods
2.	10/08/22	practical study of various methods with the help of case studies for individual methods
Tutorial 2	11/08/22	-
3.	16/08/22	Drug utilization review
4.	17/08/22	Case report
Tutorial 3	18/08/22	-
5.	22/08/22	Case series
6.	23/08/22	Surveys of drug use
7.	24/08/22	Cross sectional studies
<b>Tutorial 4</b>	<b>25/08/22</b>	<b>Monthly test</b>
8.	29/08/22	Cohort studies
9.	30/08/22	Case control studies
Tutorial 5	01/09/22	-

10.	12/09/22	Case cohort studies
11.	13/09/22	Meta analysis studies
12.	14/09/22	Spontaneous reporting
Tutorial 6	15/09/22	-
13.	19/09/22	Prescription event monitoring
14.	20/09/22	Record linkage system
<b>Unit-5 Sources of data for pharmacoepidemiological studies</b>		<b>02 Hours</b>
1.	21/09/22	Ad Hoc data sources
Tutorial 7	22/09/22	-
2.	26/09/22	Automated data systems
<b>Unit-6 selected special application of pharmacoepidemiology</b>		<b>05 Hours</b>
1.	27/09/22	Studies of vaccine safety

2.	28/09/22	Hospital pharmacoepidemiology
<b>Tutorial 8</b>	<b>29/09/22</b>	<b>Monthly test</b>
Tutorial 9	06/10/22	-
3.	10/10/22	Pharmacoepidemiology and risk management
4.	11/10/22	Druf induced birth defects
Activity	12/10/22	Viva Voce/ Group Discussion
Tutorial 10	13/10/22	-
<b>III Sessional (38 Lectures + 08 Activities)</b>		
<b>PHARMACOECONOMICS</b>		<b>36 Hours</b>
<b>Unit -7</b>	<b>Definition, History , needs of pharmacoconomics eveluations</b>	<b>02 Hours</b>
1.	17/10/22	Definition, History , needs of pharmacoconomics eveluations
2.	18/10/22	Role in formulary management decisions
<b>Unit -8</b>	<b>Pharmacoenomic evaluation</b>	<b>14 Hours</b>
1.	19/10/22	Outcome assessments in pharmacoconomics
Tutorial-1	20/10/22	-
2.	26/10/22	Types of evaluation in pharmacoconomics
<b>Tutorial 2</b>	<b>27/10/22</b>	<b>Monthly test</b>
3.	31/10/22	Types of evaluation in pharmacoconomics [contd]
4.	01/11/22	Cost minimization analysis
5.	02/11/22	Cost minimization analysis [contd]
Tutorial 3	03/11/22	-
6.	07/11/22	Cost of illness analysis
7.	08/11/22	Cost of illness analysis [contd]
8.	09/11/22	Cost effective analysis
Tutorial 4	10/11/22	-
9.	14/11/22	Cost effective analysis [contd]
10.	15/11/22	Cost utility analysis
11.	16/11/22	Cost utility analysis [cont]
Tutorial 5	17/11/22	
12.	23/11/22	Cost benefit analysis
<b>Tutorial 6</b>	<b>24/11/22</b>	<b>Monthly test</b>
13.	28/11/22	Cost benefit analysis [contd]
14.	29/11/22	Cost benefit analysis [ contd]
<b>Unit 9</b>	<b>Applications of pharmacoconomics</b>	<b>20 Hours</b>
1.	30/11/22	Application of pharmacoconomics
Tutorial 7	01/12/22	-

Tutorial-8	08/12/22	-
2.	12/12/22	Application of pharmacoconomics [contd]
3.	13/12/22	Software used in pharmacoconomic analysis



4.	14/12/22	Software used in pharmacoeconomic analysis [ contd]
Tutorial 9	15/12/22	-
5.	19/12/22	Software used in pharmacoeconomic analysis [contd]
6.	20/12/22	Case studies – CEA
7.	21/12/22	Case studies – CEA [Contd]
<b>Tutorial 10</b>	<b>22/12/22</b>	<b>Monthly test</b>
8.	18/01/23	Case studies – CEA[cont]
Tutorial11	19/01/23	-
9.	23/01/23	Case studies – CUA
10.	24/01/23	Case studies – CUA [Cont]
11.	25/01/23	Case studies –CUA [Cont]
12.	30/01/23	Case studies – CBA
13.	31/01/23	Case studies- CBA [Cont]
14.	01/02/23	Case studies- CBA [Cont]
Tutorial12	02/02/23	-
15.	06/02/23	Case studies – Decision modelling
16.	07/02/23	Case studies – decision modelling [contd]
17.	08/02/23	Case studies - decision modelling [contd]
Tutorial13	09/02/23	-
18.	13/02/23	Case studies – markov modelling
19.	14/02/23	Case studies – markov modelling [contd]
20.	15/02/23	Case studies – markov modelling [contd]
<b>Tutorial 14</b>	<b>16/02/23</b>	<b>Monthly test</b>
Activity 1	20/02/23	- Viva Voce/ Group Discussion
Activity 2	21/02/23	- Viva Voce/ Group Discussion
Activity 3	22/02/23	- Viva Voce/ Group Discussion
Tutorial 15	23/02/23	- Viva Voce/ Group Discussion
Activity 5	27/02/23	- Viva Voce/ Group Discussion
Activity 6	28/02/23	- Viva Voce/ Group Discussion
Activity 7	01/02/23	- Viva Voce/ Group Discussion
Tutorial 16	02/03/23	- Viva Voce/ Group Discussion

### Text Books:

1. Drug safety and pharmacoepidemiology. [s.l.]: Authors: Avianna Stokes foster academics. 2019.
2. West-Strum, D. and Yang, Y., 2013. Understanding Pharmacoepidemiology. New York: McGraw-Hill.

3. Rascati, K., 2014. Essentials Of Pharmacoeconomics. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
4. 1999. Introduction To Health Economics and Pharmacoeconomics CD-ROM Series. Secaucus, NJ: Health Economic Research.
5. Walley, T., Haycox, A., Boland, A. and Breckenridge, A., 2004. Pharmacoeconomics. Edinburgh: Churchill Livingstone.

**Reference Books:**

1. Pharmacoeconomics and outcomes: Applications for patient care, case studies. Authors: Graer DW, Lee J, Odom TD, et al. American college of clinical pharmacy-2003.
2. Introduction to Applied Pharmacoeconomics, F. Randy Vogenberg, New York; London: McGraw-Hill,
3. Pharmacoeconomics Editor Brian L Storm, John Wiley and Sons, Ltd 4th edition.
4. Clinical epidemiology- How to do clinical Practice Research. 3rd edition, Brian Haynes, David L Sachett, Lippincott

## LECTURE PLAN – Theory

**SUBJECT** : CLINICAL PHARMACOKINETIC AND PHARMACOTHERAPEUTIC DRUG MONITORING (Theory)  
**FACULTY** : Dr ARUN K P  
**DESIGNATION** : Associate Professor, Department of Pharmacy Practice  
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Sessional	No. of Hours of Didactic Lecture		No of Hours of other Pedagogy	Total No. of Lecture Hours	Tutorial Classes
	Clinical Pharmacokinetics	Pharmacotherapeutic Drug Monitoring			
I	14	05	00	19	10
II	07	10	02	17	12
III	09	05	08	14	11
<b>Total Number of Hours</b>	30	20	10	50	33

### I SESSIONAL : 19 Lectures + 0 Activities

Lecture No.	Date	Lecture Details
<b>Clinical pharmacokinetics</b>		<b>14 Hours</b>
<b>Unit-1: Introduction to Clinical Pharmacokinetics</b>		<b>01 Hour</b>
1.	27.06.2022	Introduction to Clinical Pharmacokinetics
<b>Unit-2: Design of Dosage Regimens</b>		<b>07 Hours</b>
1.	28.06.2022	Nomograms and Tabulations in designing dosage regimen
Tutorial -1	30.06.2022	-
2.	04.07.2022	Conversion from intravenous to oral dosing
3.	05.07.2022	Conversion from intravenous to oral dosing (cont..)
Tutorial -2	07.07.2022	-
4.	11.07.2022	Determination of dose and dosing intervals
5.	12.07.2022	Drug dosing in the elderly patients
Tutorial -3	14.07.2022	-
6.	18.07.2022	Drug dosing in the pediatric patients
7.	19.07.2022	Drug dosing in the obese patients
Tutorial -4	21.07.2022	-
<b>Unit-3: Pharmacokinetics of Drug Interaction</b>		<b>03 Hours</b>
1.	25.07.2022	Pharmacokinetic drug interactions

2.	26.07.2022	Inhibition and Induction of Drug metabolism
<b>Tutorial -5</b>	<b>28.07.2022</b>	<b>Monthly Test</b>
3.	01.08.2022	Inhibition of Biliary Excretion
<b>Unit-5: Dosage Adjustment in Hepatic Disease</b>		<b>03 Hours</b>
1.	02.08.2022	Effect of Hepatic disease on pharmacokinetics
Tutorial -6	04.08.2022	-
2.	08.08.2022	Effect of Hepatic disease on pharmacokinetics (cont...)
Tutorial -7	11.08.2022	-
3.	16.08.2022	Effect of Hepatic disease on pharmacokinetics (cont...)
Tutorial -8	18.08.2022	-
<b>PHARMACOTHERAPEUTIC DRUG MONITORING</b>		<b>05 Hours</b>
<b>Unit-4: Therapeutic Drug Monitoring (TDM)</b>		
1.	22.08.2022	Introduction to TDM
2.	23.08.2022	Individualization of drug dosage regimen (Variability – Genetic, age, weight, disease and Interacting drugs)
<b>Tutorial -9</b>	<b>25.08.2022</b>	<b>Monthly Test</b>
3.	30.08.2022	Individualization of drug dosage regimen (Variability – Genetic, age, weight, disease and Interacting drugs) (cont...)
Tutorial -10	01.09.2022	-
4.	05.09.2022	Indications and Protocol for TDM
5.	06.09.2022	Protocol for TDM (cont...)

## II SESSIONAL : 17 Lectures + 0 Activities

Lecture No.	Date	Lecture Details
<b>Clinical pharmacokinetics</b>		<b>07 Hours</b>
<b>Unit-5: Dosage Adjustment in Renal Disease</b>		<b>07 Hours</b>
1.	13.09.2022	Renal impairment
Tutorial-1	15.09.2022	-
2.	19.09.2022	Pharmacokinetic considerations
3.	20.09.2022	Pharmacokinetic considerations (cont...)
Tutorial-2	22.09.2022	-
4.	26.09.2022	General approach for dosage adjustment in Renal disease
5.	27.09.2022	Measurement of Glomerular Filtration rate
<b>Tutorial-3</b>	<b>29.09.2022</b>	<b>Monthly Test</b>
Tutorial-4	06.10.2022	-
6.	10.10.2022	Dosage adjustment for uremic patients
7.	11.10.2022	Extracorporeal removal of drugs

Tutorial-5	13.10.2022	-
<b>PHARMACOTHERAPEUTIC DRUG MONITORING</b>		<b>10 Hours</b>
<b>Unit-4: Therapeutic Drug Monitoring (TDM) (cont...)</b>		<b>10 Hours</b>
1.	17.10.2022	TDM of Drugs used in Cardiovascular Diseases - Digoxin
2.	18.10.2022	TDM of Drugs used in Cardiovascular Diseases - Quinidine
Tutorial-6	20.10.2022	-
<b>Tutorial-7</b>	<b>27.10.2022</b>	<b>Monthly Test</b>
3.	31.10.2022	TDM of Drugs used in Cardiovascular Diseases -Lidocaine
4.	01.11.2022	TDM of Drugs used in Cardiovascular Diseases -Amiodarone
Tutorial-8	03.11.2022	-
5.	07.11.2022	TDM of Drugs used in Seizure Disorders - Phenytoin
6.	08.11.2022	TDM of Drugs used in Seizure Disorders - Carbamazepine
Tutorial-9	10.11.2022	-
7.	14.11.2022	TDM of Drugs used in Seizure Disorders -Valproic Acid
8.	15.11.2022	TDM of drugs used in Psychiatric conditions - Lithium
Tutorial-10	17.11.2022	-
<b>Tutorial-11</b>	<b>24.11.2022</b>	<b>Monthly Test</b>
9.	28.11.2022	TDM of drugs used in Psychiatric conditions - Amitriptyline
10.	29.11.2022	TDM of drugs used in Psychiatric conditions - Fluoxetine
Tutorial-12	01.12.2022	-
Activity-1	05.12.2022	Test on Clinical Pharmacokinetics
Activity-2	06.12.2022	Test on Pharmacotherapeutic Drug Monitoring

### III SESSIONAL : 14 Lectures + 08 Activities

Lecture No.	Date	Lecture Details
<b>Clinical pharmacokinetics</b>		<b>09 Hours</b>
<b>Unit-6: Population Pharmacokinetics</b>		<b>05 Hours</b>
1.	12.12.2022	Introduction to Bayesian Theory
2.	13.12.2022	Adaptive method or Dosing with feedback
Tutorial-1	15.12.2022	-
3.	19.12.2022	Adaptive method or Dosing with feedback (cont...)
4.	20.12.2022	Analysis of Population pharmacokinetic Data
<b>Tutorial-2</b>	<b>22.12.2022</b>	<b>Monthly Test</b>
Tutorial-3	19.01.2023	-
5.	23.01.2023	Analysis of Population pharmacokinetic Data (cont...)
<b>Unit-7:Pharmacogenetics</b>		<b>04 Hours</b>
1.	24.01.2023	Genetic polymorphism in Drug metabolism: Cytochrome P-450 Isoenzymes

2.	30.01.2023	Genetic polymorphism in Drug metabolism: Cytochrome P-450 Isoenzymes (cont...)
3.	31.01.2023	Genetic Polymorphism in Drug Transport and Drug Targets
Tutorial-4	02.02.2023	-
4.	06.02.2023	Pharmacogenetics and Pharmacokinetics /Pharmacodynamic considerations
<b>PHARMACOTHERAPEUTIC DRUG MONITORING</b>		<b>05 Hours</b>
<b>Unit-4: Therapeutic Drug Monitoring (TDM) (cont...)</b>		<b>05 Hours</b>
1.	07.02.2023	TDM of drugs used in Organ transplantations - Cyclosporine
Tutorial-5	09.02.2023	-
2.	13.02.2023	TDM of drugs used in Organ transplantations -Tacrolimus
3.	14.02.2023	TDM of drugs used in Organ transplantations -Sirolimus
Tutorial-6	16.02.2023	-
4.	13.02.2023	Pharmacokinetic/Pharmacodynamic Correlation in drug therapy
5.	14.02.2023	Pharmacokinetic/Pharmacodynamic Correlation in drug therapy (cont...)
Tutorial-7	16.02.2023	-
Activity-1	20.02.2023	Group Discussion on Clinical Pharmacokinetic Concepts
Activity-2	21.02.2023	Group Discussion on Pharmacotherapeutic Drug Monitoring Concepts
<b>Tutorial-8</b>	<b>23.02.2023</b>	<b>Monthly Test</b>
Activity-3	27.02.2023	Revision of I Sessional Syllabus – Activity Based Learning
Activity-4	28.02.2023	Revision of I Sessional Syllabus – Activity Based Learning
Tutorial-9	02.03.2023	-
Activity-5	06.03.2023	Revision of II Sessional Syllabus – Activity Based Learning
Activity-6	07.03.2023	Revision of II Sessional Syllabus – Activity Based Learning
Tutorial-10	09.03.2023	-
Activity-7	13.03.2023	Revision of III Sessional Syllabus – Activity Based Learning
Activity-8	14.03.2023	Revision of III Sessional Syllabus – Activity Based Learning
Tutorial-11	16.03.2023	-

### 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, VallabhPrakashanPitampura, Delhi.
5. Biopharmaceutics and Pharmacokinetics, V Venkateswarulu, Pharma Book Syndicate.

## Reference Books

1. Applied Pharmacokinetics & Pharmacodynamics: Principles of Therapeutic Drug Monitoring; Author: Michael E.Burton, Leslie M.Shaw, JeromeJ.
2. Schentag,WilliamE. Evans Published by: Lippincott Williams & Wilkins, 2005
3. Handbook of Analytical Therapeutic Drug Monitoring and Toxicology By Steven How-Yan Wong, Irving Sunshine, Published by CRC Press,1996
4. Clinical pharmacokinetics, Author: Soraya Dhillon, Andrzej Kostrzewski, Publisher: Pharmaceutical Press
5. Clinical Pharmacokinetics - Rowland and Tozer, Williams and WilkinsPublication.
6. Biopharmaceutics and Applied Pharmacokinetics - Leon Shargel , Prentice Hall publication