

**Department of Pharmacy
M.I.T., Muzaffarpur**



**Affiliated to
AryaBhatta Knowledge University,
Mithapur, Patna**

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**Contact Details:
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**Name of Course: Pharmacology –III
Course code (T) : 091702
Course code (P) : 091702P
Semester : VII
Academic year : 2018-2019**

COURSE DESCRIPTIONS: PHARMACOLOGY-VIII
B. PHARM –SEVENTH SEMESTER

1. Course Syllabus

Module: 1. Drugs Acting on the Gastrointestinal Tract

1.1. Antacids, Anti secretory and Anti-ulcer drugs, Laxatives and antidiarrhoeal drugs.

1.2. Appetite stimulants and suppressants.

1.3. Emetics and anti-emetics.

1.4. Miscellaneous: carminatives, demulcents, protectives, adsorbents, astringents, digestives, enzymes and mucolytics.

Module: 2. Pharmacology of drugs affecting Endocrine System

2.1. Hypothalamic and pituitary hormones

2.2. Thyroid hormones and anti-thyroid drugs, calcitonin and Vitamin D.

2.3. Insulin, oral hypoglycemic agents

2.4. ACTH and corticosteroids

2.5. Androgens and anabolic steroids, Estrogens, progesterone and oral contraceptives. **Module: 3. Chemotherapy**

3.1. General principles of Chemotherapy.

3.2. Sulfonamides and Quinolones.

3.3. Penicillin, Cephalosporins, Tetracyclines, Amino glycoside antibiotics, Chloramphenicol and Erythromycin

Module: 4. Chemotherapy of Infections

4.1. Chemotherapy of malaria tuberculosis, leprosy, fungal diseases, viral diseases

4.2. Chemotherapy of malignancy and immunosuppressive agents

4.3. Antiprotozoal drugs and anthelmintics

Module: 5. Concepts of Clinical Pharmacology

5.1. Clinical Trial studies 5.2. Preclinical Toxicity studies 5.3. Bioassay of Drugs and Biological Standardization. 5.4. Drug interactions

Recommended Books:

1. K.D. Tripathi, Essentials of Medical Pharmacology, JAYPEE.

2. H.L. Sharma and K.K. Sharma, Principles of Pharmacology, PARAS.

3. Lippincott Illustrated Reviews: Pharmacology; Editors: Clark MA, Finkel R, Rey JA, Whalen K; WOLTERS KLUWER HEALTH / LIPPINCOTT, WILLIAMS AND WILKINS

4. Katzung B.G., Masters S.B., Trevor A.J., Basic & Clinical Pharmacology; McGraw-Hill (LANGE)

5. Rang M.P., Dale M.M., Ritterl M. Pharmacology, CHURCHILL LIVINGSTONE

SAMPLE TIME TABLE

MUZAFFARPUR INSTITUTE OF TECHNOLOGY

ODD SEM (JULY- DEC 2018) TIME TABLE FOR 3rd , 5th & 7th SEMESTER, B.PHARM, WITH EFFECT FROM 16/07.20

DAY	SEMESTER	9 AM TO 10	10 -11 AM	11- 12 AM	12 -1 PM	2- 3 PM	3 PM	
MON	THIRD SEM	APHE II SK	PHARM ANAL II GT	PHARMACEUTICS III AB	PHARMACOGNOSY II NRB		CLAS	
	FIFTH SEM	PHARMACEUTICS V RKC	PHARMACEUTICS V LAB RKC					CLAS
	SEVENTH SEM	PHARMA. BIOTECH SNS	PHARM CHEM VII RP	PHARMA. INDUST. MANAG.	PHARMACOLOGY III RP		CLAS	
TUES	THIRD SEM	PHARMACEUTICS III AB	PHARM CHEM IV SW	PHARMACEUTICS III AB(T)	PHARM ANAL II GT(T)		PHARMA LA	
	FIFTH SEM	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMA CEUTICS V RKC	PHARMACOLOGY I SK		PHARM C S	
	SEVENTH SEM	PHARMACEUTICS VIII RKC	PHARM CHEM VII RP	PHARMACOLOGY III RP	PHARMACEUTICS VIII RKC(T)		PHARMA LA	
WED	THIRD SEM		PHARMACOGNOSY II NRB(T)	PHARMACOGONOSY II NRB	PHAR ANAL II GT		PHARMA II LA	
	FIFTH SEM	PHARMACOLOGY I SK	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMACOLOGY I SK(T)		PHARMA LA	
	SEVENTH SEM	PHARM CHEM VII RP(T)	PHARMACEUTICS VIII RKC	PHARM CHEM VII RP	ELECTIVE OPT		PHARM C	
THURS	THIRD SEM	APHE II SK(T)	PHARM CHEM IV SW	APHE II SK	PHARM CHEM IV SW(T)		PHARM A C	
	FIFTH SEM	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMACOGONOSY IV SW			PHARMA IV LA	

	SEVENTH SEM	PHARMACEUTICS VIII RKC	PHARMA. BIOTECH SNS(T)	PHARMACOLOGY III RP	ELECTIVE OPT	ELECTIVE
FRI	THIRD SEM	APHE II SK	PHARMACUTICAL CHEMISTRY IV LAB SW			APHE I
	FIFTH SEM	PHARMACOGENOSY IV SW	PHARMACEUTICS V RKC	PHARMACOGENOSY IV SW(T)	PHARMACEUTICS V RKC(T)	PHARMA LAB C
	SEVENTH SEM		ELECTIVE OPT (T)	ELECTIVE OPT	PHARMA. BIOTECH.SNS	PHARMA III RK
SAT	THIRD SEM	PHARMACOGENOSY II NRB	PHARM CHEM IV SW	PHAR ANAL II GT	PHARMACEUTICS III AB	
	FIFTH SEM	PHARM CHEM V SNS(T)	PHARMACOLOGY I SK	PHARMACEUTICS VI AB	PHARMACOGENOSY IV SW	
	SEVENTH SEM	PHARMACOLOGY III RP(T)	PHARMA. INDUST. MANAG.	PHARMA. BIOTECH SNS		

2. Course Objective

The graduates of the programme will possess:

1. The knowledge of basic pharmacology, some major diseases and cell injury & adaptation.
2. The knowledge of pharmacology of drugs acting on PNS and CNS

3. Course Outcomes (COs)

After completion of the course, the students are will be able to:

1. Evaluate the effects of drugs using animal models of G.I. diseases (Bloom's Level V).
2. Explain the pharmacology and rational use of drugs used for the treatment various endocrine disorders (Bloom's Level V).

3. Analyze the problems associated with the drugs used for the treatment various microbial infections and cancer (Bloom's Level VI).

4. Discover the new updates on chemotherapeutic agents and preclinical & clinical research regularly (Bloom's Level VI).

4. Mapping of COs with Pos

PO	CO1	CO2	CO3	CO4
1				
2				
3				
4				

5				
6				
7				
8				
9				
10				
11				
12				

5. Assessment Methods for Cos

5.1. Theory

S.No	Assessment Tools	Marks	Outcomes
1	Sessional Examination	20	CO1 CO2 CO3 CO4
2	Assignment	02	CO1 CO2 CO3 CO4
3	Presentation	02	CO1 CO2 CO3 CO4

4	Quizzes	01	CO1 CO2 CO3 CO4
5	Attendance	05	NA
6	University Examination	70	NA

5.2. Practical

S.No	Assessment Tools	Marks	Outcomes
1	Attendance	05	CO1 CO2 CO3 CO4
2	Experiment valuation	10	CO1 CO2 CO3 CO4
3	Internal Viva- voce	05	CO1 CO2 CO3 CO4
4	University Practical Exam	30	CO1 CO2 CO3 CO4

6. Delivery Methodology

Outcomes	Methods	Supporting Tools
CO 1	Chalk-Talk, Interactive classroom, ICT usage, Group discussions, Web based learning	Board, Laptop, Projector, You Tube, Whatsapp, Google,

CO2	Chalk-Talk, Interactive classroom, ICT usage, Web based learning	Board, Laptop, Projector, You Tube, Whatsapp, Google,
CO3	Chalk-Talk, Interactive classroom, ICT usage, Group discussions, , Web based learning	Board, Laptop, Projector, You Tube, Whatsapp, Google,
CO4	Chalk-Talk, Interactive classroom, ICT usage, Group discussions, , Web based learning	Board, Laptop, Projector, You Tube, Whatsapp, Google,

7. Teaching plan

7.1. Theory

Lecture No.	Contents
1	Topic: Introduction to GIT and pathophysiology of peptic ulcer.
2	Topic: Antiulcer drugs
3	Topic: Antiulcer drugs
4	Topic: Antiulcer drugs
5	Topic: Antiulcer drugs
6	Topic: Antiulcer drugs
7	Topic: Antiulcer drugs
	Class Test-1
8	Topic: Laxatives drugs
9	Topic: Antidiarrhoeal drugs
10	Topic: Appetite stimulants and suppressants.
11	Topic: Emetics and anti-emetics.
12	Topic: Chemotherapy
13	Topic: Chemotherapy
14	Topic: Sulfonamodes
15	Topic: Sulfonamodes
16	Topic: Quinolones
17	Topic: Beta-lactams
	Topic: Beta-lactams
18	Topic: Tetracyclines
19	Topic: Aminoglycosides
20	Topic: Chloramphenicol and Macrolides
21	Topic: Antiamoebial drugs
22	Topic: Anthelmintic drugs

23	Topic: Anthelmintic drugs
24	Topic: Antiviral drugs
25	Topic: Antiviral drugs
26	Topic: AntiT.B. drugs
27	Topic: AntiT.B. drugs
28	Topic: AntiT.B. drugs
29	Topic: Antileprotic drugs
	Class Test-2
30	Topic: Antimalarial drugs
31	Topic: Antimalarial drugs
32	Topic: Antimalarial drugs
33	Topic: Anticancer drugs
34	Topic: Anticancer drugs
35	Topic: Anticancer drugs
36	Topic: Immunosuppressant drugs
37	Topic: Immunosuppressant drugs
38	Topic: Hormones
39	Topic: Thyroid and antithyroid drugs
40	Topic: Thyroid and antithyroid drugs
41	Topic: Thyroid and antithyroid drugs
42	Topic: Drugs affecting Ca ⁺⁺ balance
43	Topic: Insulin
44	Topic: Insulin
45	Topic: Oral hypoglycemic drugs
46	Topic: Oral hypoglycemic drugs
47	Topic: ACTH
48	Topic: Corticosteroids
49	Topic: Corticosteroids
50	Topic: Corticosteroids
51	Topic: Androgens
52	Topic: Estrogens
53	Topic: Estrogens
54	Topic: Progestogens
55	Topic: Progestogens

7.2. Practical

Exp. No	Experiment
1	To study different drug interactions
2	To study preclinical and clinical trails and its documentation
3	To study different types of Bioassays
4	To record the dose response curve of Ach by using Frog's rectus abdominus muscle
5	To estimate the strength of an unknown sample of Ach by four point bioassay by employing rectus abdominus muscle of Frog
6	To study the effect of physostigmine & atropine on ciliary movement in frog buccal cavity
7	Demonstration of influence of the thyroxine, TSH, and propylthiouracil on metabolism of Rat
8	To study the CRC of oxytocin using rat uterus preparation
9	To study the mechanism of action of β lactams on β lactamases
10	To study minimum inhibitory concentration (MIC) Of antibiotics