

**DEPARTMENT OF PHARMACY
MIT MUZAFFARPUR**



**AFFILIATED TO
ARYABHATTA KNOWLEDGE UNIVERSITY,
MITHAPUR, PATNA**

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Contact Details:

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**NAME OF COURSE: APHE-I
COURSE CODE (T): 091305
COURSE CODE (P): 091305P
SEMESTER: III
ACADEMIC: 2018-2019**

1.Course Syllabus

Module-1

- **Digestive System:** Gross anatomy of the gastro-intestinal tract, functions of its different parts including those of liver, pancreas and gall bladder, various gastrointestinal secretions and their role in the absorption and digestion of food. Disorders of digestive system.
- **Respiratory System:** Anatomy of respiratory organs & its functions, respiration, mechanism and regulation of respiration, respiratory volumes and vital capacity.
- **Central Nervous System:** Functions of different parts of brain and spinal cord. Neurohumoral transmission in the central nervous system, reflex action electroencephalogram, specialized functions of the brain, Cranial nerves and their functions.

Module-2

- **Autonomic Nervous System:** Physiology and functions of the autonomic nervous system. Mechanism of neurohumoral transmission in the A.N.S.
- **Urinary System:** Various parts, structures and functions of the kidney and urinary tract. Physiology of urine formation and acid-base balance. Diseases of the urinary system.
- **Reproductive System:** Male and female reproductive systems and their hormones, physiology of menstruation, coitus and fertilization. Sex differentiation, spermatogenesis & oogenesis. Pregnancy its maintenance and parturition.

Module-3

- Endocrine System: Basic anatomy and physiology of Pituitary, Thyroid, Parathyroid. Adrenals, Pancreas, Testes and ovary, their hormones and functions.
- Sense Organs: Basic anatomy and physiology of the eye (vision), ear (hearing), taste buds, nose (smell) and skin (superficial receptors).
- Concepts of health and disease: Disease causing agents and prevention of disease.
- Classification of food requirements: Balanced diet, nutritional deficiency disorders, their treatment and prevention, specifications for drinking water.
- Demography and family planning: Medical termination of pregnancy.
- d. Communicable diseases: Brief outline, their causative agents, modes of transmission and prevention (Chicken pox, measles, influenza, diphtheria, whooping cough, tuberculosis, poliomyelitis, helminthiasis, malaria, filariasis, rabies, trachoma, tetanus, leprosy, syphilis, gonorrhoea, and AIDS).
- e. First Aid: Emergency treatment of shock, snake bites, burns, poisoning, fractures and resuscitation methods.

Recommended Books:

1. Anatomy and Physiology in Health and Illness by Ross and Willson (Churchill living stone)
2. Concise Medical Physiology by S.K.Choudhury (New central book agency, Calcutta)
3. Guyton A C, Hall JE., Text book of Medical Physiology, W.B.Sandnders Company
4. Human Physiology, C C Chatterjee, Medical allied agency, Calcutta
5. Tortora G.J., S.R.Grabowski&Anagnodokos N.P., Principles of Anatomy & Physiology

SAMPLE TIME TABLE

MUZAFFARPUR INSTITUTE OF TECHNOLOGY

MUZAFFARPUR INSTITUTE OF TECHNOLOGY								
ODD SEM (JULY- DEC 2018) TIME TABLE FOR 3 rd , 5 th&& 7 th SEMESTER, B.PHARM, WITH EFFECT FROM 16.07.2018.								
DAY	SEMESTER	9 AM TO 10	10 -11 AM	11- 12 AM	12 -1 PM	2- 3 PM	3 -4 PM	4-5 PM
MON	THIRD SEM	APHE II SK	PHARM ANAL II GT	PHARMACEUTICS III AB	PHARMACOGNOSY II NRB	CLASS TEST		
	FIFTH SEM	PHARMACEUTICS V RKC	PHARMACEUTICS V LAB RKC			CLASS TEST		
	SEVENTH SEM	PHARMA. BIOTECH SNS	PHARM CHEM VII RP	PHARMA. INDUST. MANAG.	PHARMACOLOGY III RP	CLASS TEST		
TUES	THIRD SEM	PHARMACEUTICS III AB	PHARM CHEM IV SW	PHARMACEUTICS III AB(T)	PHARM ANAL II GT(T)	PHARMACEUTICS III LAB AB		
	FIFTH SEM	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMA CEUTICS V RKC	PHARMACOLOGY I SK	PHARM CHEM V LAB SNS		
	SEVENTH SEM	PHARMACEUTICS VIII RKC	PHARM CHEM VII RP	PHARMACOLOGY III RP	PHARMACEUTICS VIII RKC(T)	PHARMACOLOGY III LAB RP		
WED	THIRD SEM		PHARMACOGNOSY II NRB(T)	PHARMACOGONOSY II NRB	PHAR ANAL II GT	PHARMACOGONOSY II LAB NRB		
	FIFTH SEM	PHARMACOLOGY I SK	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMACOLOGY I SK(T)	PHARMACOLOGY I LAB SK		
	SEVENTH SEM	PHARM CHEM VII RP(T)	PHARMACEUTICS VIII RKC	PHARM CHEM VII RP	ELECTIVE OPT	PHARM CHEM VII RP		
THURS	THIRD SEM	APHE II SK(T)	PHARM CHEM IV SW	APHE II SK	PHARM CHEM IV SW(T)	PHARM ANAL II LAB GT		
	FIFTH SEM	PHARM CHEM V SNS	PHARMACEUTICS VI AB	PHARMACOGONOSY IV SW		PHARMACOGONOSY IV LAB SW		
	SEVENTH SEM	PHARMACEUTICS VIII RKC	PHARMA. BIOTECH SNS(T)	PHARMACOLOGY III RP	ELECTIVE OPT	ELECTIVE LAB-OPT		
FRI	THIRD SEM	APHE II SK	PHARMACUTICAL CHEMISTRY IV LAB SW			APHE II LAB SK		
	FIFTH SEM	PHARMACOGONOSY IV SW	PHARMACEUTICS V RKC	PHARMACOGONOSY IV SW(T)	PHARMACEUTICS V RKC(T)	PHARMACEUTICS VI LAB OPT AB		
	SEVENTH SEM		ELECTIVE OPT (T)	ELECTIVE OPT	PHARMA. BIOTECH.SNS	PHARMACEUTICS V III RKC LAB		
SAT	THIRD SEM	PHARMACOGONOSY 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	PHARMACOGONOSY IV SW			
	SEVENTH SEM	PHARMACOLOGY III RP(T)	PHARMA. INDUST. MANAG.	PHARMA. BIOTECH SNS				

2. Program Objectives (POs)

The graduates of the programme will possess:

1. The knowledge of core concepts of digestive system, respiratory system & central nervous system.
2. The knowledge of Autonomic Nervous System, urinary system & reproductive system.
3. The knowledge of sense organ, endocrine system & regarding health & disease.

3.Course Outcomes (COs)

1. Recall the digestive system, respiratory system & central nervous system.
2. ExplainAutonomic Nervous System, urinary system & reproductive system.
3. Explanation sense organ, endocrine system & regarding health & disease.

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, Case study discussion about diseases, Group discussions, Web based learning	Board, Laptop, Projector, You Tube, WhatsApp, Google,
CO2	Chalk-Talk, Interactive classroom, ICT usage, Case study discussion about diseases, Group discussions, Web based learning	Board, Laptop, Projector, You Tube, WhatsApp, Google,
CO3	Chalk-Talk, Interactive classroom, ICT usage, Case study discussion about diseases, Group discussions, Web based learning	Board, Laptop, Projector, You Tube, WhatsApp Google,
CO4	Chalk-Talk, Interactive classroom, ICT usage, Case study discussion about diseases, Group discussions, Web based learning	Board, Laptop, Projector, You Tube, WhatsApp, Google,

7. Teaching plan

7.1. Theory

Lecture No.	Contents
1	Gross anatomy of the gastro-intestinal tract
2	functions of its different parts including those of liver
3	Pancreas and gall bladder, various gastrointestinal secretions and their role in the absorption and digestion of food
4	Disorders of digestive system
5	Anatomy of respiratory organs & its function
6	Respiration, mechanism and regulation of respiration, respiratory volumes and vital capacity.
7	Functions of different parts of brain and spinal cord
8	Neurohumoral transmission in the central nervous system
9	Reflex action electroencephalogram
10	Specialized functions of the brain
11	Cranial nerves and their functions.
12	Physiology and functions of the autonomic nervous system
13	Mechanism of neurohumoral transmission in the A.N.S.
14	Various parts, structures and functions of the kidney
15	Urinary tract
16	Physiology of urine formation and acid-base balance
17	Diseases of the urinary system
18	Male and female reproductive systems and their hormones
19	Physiology of menstruation, coitus and fertilization
20	Sex differentiation, spermatogenesis & oogenesis. Pregnancy its maintenance and parturition.

21	Basic anatomy and physiology of Pituitary
22	Thyroid, Parathyroid. Adrenals, Pancreas, Testes and ovary
23	Hormones and functions
24	Basic anatomy and physiology of the eye (vision)
25	Ear (hearing), taste buds
26	Nose (smell) and skin (superficial receptors).
27	Disease causing agents and prevention of disease
28	Balanced diet
29	nutritional deficiency disorders
30	Treatment and prevention, specifications for drinking water.
31	Demography and family planning: Medical termination of pregnancy
32	Communicable diseases: Brief outline, their causative agents
33	Modes of transmission and prevention (Chicken pox, measles)
34	Influenza, diphtheria, whooping cough
35	Tuberculosis, poliomyelitis, helminthiasis, malaria, filariasis, rabies
36	Trachoma, tetanus, leprosy, syphilis
37	Gonorrhoea and AIDS
38	First Aid: Emergency treatment of shock, snake bites
39	Burns, poisoning, fractures and resuscitation methods.

7.2. Practical

Exp. No	Experiment
1	Study of different systems with the help of charts and models
2	Microscopic studies of different tissues
3	Simple experiments involved in the analysis of normal and abnormal urine: Collection of specimen, appearance, determination of pH, Sugars, proteins, urea and creatinine
4	Physiological experiments on nerve-muscle preparations.
5	Determination of vital capacity, experiments on spirometry.

