

COURSE	FACULTY OF PHYSIOTHERAPY
PROGRAM	BACHELOR OF PHYSIOTHERAPY
SEMESTER	1
COURSE TITLE	ANATOMY
COURSE CODE	17PT0101
COURSE CREDITS	11

Course Outcomes: After completion of this course, student will be able to:

- 1 Course Acquire the knowledge of structure of human body in general.
- 2 Understand the regional anatomy in detail.
- 3 Anatomical changes right from embryonic period till old age
- 4 Understand histological features of various organs.
- 5 Understand its application in medical science.
- 6 To apply the concept of functional Anatomy in physiotherapy practice.

Pre-requisite of course: TO LEARN ANATOMY FOR THE BETTER UNDERSTANDING OF HUMAN BODY

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
160	0	120	50	30	20	50	50

Contents : Unit	Topics	Contact Hours
1	GENERAL ANATOMY Introduction and Anatomical terms, skin, superficial fascia and deep fascia, 1.3 CVS, Portal system, collateral circulation & arteries, Lymphatic system, Osteology, Myology, Syndesmology, Nervous system	15
2	HISTOLOGY Cell, Epithelia, Connective tissue general, Cartilage, Bones, Muscles, Nerves, Blood and phagocytic system, Lymph and lymphatic system, Blood vessels, Skin and its appendages, Central nervous system	10
3	GENERAL EMBRYOLOGY Spermatogenesis, Structure of Spermatozoon, Oogenesis, Ovarian follicle, Fertilization, Formation of germ layers, Placental development, Brachial arches, Development of skeletal system, Development of locomotor system, Development of nervous system	10
4	MYOLOGY, OSTEOLOGY & ARTHROLOGY Fascia & muscles of scalp and face, Muscles of mastication, Temporomandibular joint, Muscles of orbit & related nerves, Superficial and lateral cervical muscle, platysma, trapezius, SCM,	40

	<p>Anterior triangle of neck-suprahyoid & infrahyoid, Anterior and lateral vertebral muscles, Cervical plexus, Cranial nerve (1st to 6th) (7th & 8th), Cranial nerve (9th , 10th , 11th , 12th), Sub occipital triangle & sub occipital muscles, Joints of vertebral column to cranium, Muscles of thorax and movement of respiration, Joints of thorax including sternochondral & chondrocostal joints, Muscles of abdomen, Muscles of pelvis, Muscles of perineum, Vertebral joint, Joints of pelvis (lumbosacral, sacrococcygeal, pubic symphysis), Deep muscles of back, Muscles connecting upper limb to vertebral column with regional structures, Scapular muscles including regional structures, Muscles of arm, Axilla and brachial plexus, Joints of shoulder girdle, Shoulder joint, Anterior antebrachial muscles (front of forearm) with regional structure, Posterior antebrachial muscles (back of forearm) with regional structures, Elbow joint & cubital fossa, Radioulnar joint (superior, middle and inferior), The retinacula, fascia and synovial sheath of wrist and hand, Muscles of hand, Radiocarpal / wrist joint, Other joints of hand , Muscles connecting lower limb to vertebral column with regional structures, Muscles of iliac region(psoas muscle) and lumbar plexus, Anterior femoral muscles (front of thigh) including regional structures, Medical femoral muscles (adductor compartment) including regional structures, Muscles of gluteal region including regional structures, Posterior femoral muscles (back of thigh) including regional structures, Hip joint, Anterior crural muscles including regional structures, Lateral crural muscles including regional structures, Posterior crural muscles including regional structures, Knee joint, Popliteal fossa, Muscles of foot, Tibiofibular joint (superior, middle and inferior), Talocrural joint (ankle joint), Joints of foot & Arches)</p>	
5	<p>NERVOUS SYSTEM Introduction to nervous system & meanings, Spinal cord & peripheral nerves and vertebral canal, Brain stem-1, Brain stem-2, Cerebellum, Diencephalon with basal ganglia, Limbic system with olfactory region, Cerebrum & functional areas, Spinal tracts & overview of CNS – I, Spinal tracts & overview of CNS – II</p>	15
6	<p>RESPIRATORY SYSTEM Thoracic cage & Air passages, Respiratory organs - lungs, pleura, bronchial tree, broncho-pulmonary segments, Diaphragm: Origin, insertion, nerve supply and action, openings in the diaphragm, Intercostal muscles and Accessory muscles of respiration: Origin, insertion, nerve supply and action</p>	10
7	<p>CARDIOVASCULAR SYSTEM Blood, lymph and tissue fluid- characteristic, composition, function, The heart – position, shape and parts; main arteries, veins, capillaries, Lymph circulation</p>	10
8	<p>DIGESTIVE SYSTEM Anatomy of digestive organs– Oesophagus, Stomach, Intestine, Rectum etc, Digestive glands, Liver, Pancreas, Gall bladder</p>	10
9	<p>URINARY SYSTEM Anatomy of urinary organs, kidneys, ureters, urinary bladder, urethra in males and females etc, Types of bladder especially in paraplegics</p>	10
10	<p>ENDOCRINE SYSTEM Glands -classification, sites and secretion, Hormones</p>	10

11	REPRODUCTIVE SYSTEM Brief outline of genital organs, Outline of male and female reproductive system	10
12	SPECIAL SENSORY ORGANS & SENSATIONS Emphasis on skin, ear and eyes .Less detail on smell and taste	10
Total Hours		160

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	Dissection of upper Limb arm , forearm, hand	15
2	Dissection of Lower Limb thigh region, leg, foot	15
3	Identification of anterolateral abdominal wall, posterior abdominal wall & thoracic cage. upper thorax , thoracic organs, abdominal wall , gluteal region , upper /lower back	15
4	Anatomical position & description of all bones anatomical positions: , description of upper limb bones, description of lower limb bones, description if axial skeletal bones, description of skull	20
5	Surface marking in cadaver and living body surface marking in cadaver, surface marking in living body	15
6	Radiological examination of upper limb, lower limb & other special X-rays. X-ray reading of upper limb, X-ray description of lower limb, X-ray description of chest and others	10
7	In BRAIN: Identification of all parts and various sections at different levels. identification of different parts of brain: forebrain, midbrain, hindbrain	15
8	In HISTOLOGY PRACTICAL: Identification of basic tissues of body. identification of different connective tissues	15
Total Hours		120

References:
Textbooks:

- Human Anatomy by B.D. Chaurasia, Vol.1, 2, 3 and general anatomy handbook Latest edition; CBS publications.

Reference books:

- Textbook of Anatomy by Inderbir Singh; Latest edition; Jaypee Publications.
- Handbook of Osteology by Poddar; Latest edition; Scientific Book Company.
- Principles of anatomy and physiology by Tortora; Latest edition; Harper& Row Publications.
- Cunningham's Manual of Practical Anatomy; Latest edition, Vol: 1, 2, 3; Oxford Publications.

5. Clinical Anatomy for Medical Students by Richard Snell, Latest edition, Lippincott, Williams & Wilkins.
6. Anatomy & Physiology by Ross & Wilson's, Latest edition, Churchill Livingstone.
7. Gray's Anatomy, Latest edition, Elsevier Publications.
8. Grant's atlas of anatomy, Anne MR; Latest edition.