

Human Anatomy II

Course Title	HUMAN ANATOMY II		
Course Code	PT201		
Course Credit	Lecture: 6		
	Practical: 4		
	Clinical Training: 0		
	Total: 10		
Course Objectives			
1. To provide students with the working knowledge of the structure of the human body this forms an essential foundation for their clinical studies.			
2. To concerned with the topographical and functional anatomy of the lower limb, abdomen, spine, head, neck and brain.			
3. To share the knowledge related to the head, neck and nervous system which are studied with particular reference to topics of importance to physiotherapists.			
#	Detailed Syllabus	Hours	
	Section I	T	P
1.	Introduction to Human Anatomy II	1	0
2.	Anatomy of Head, Neck 1. Osteology: Mandible, bones of the skull	3	4
	Brain		
	1. Organization of Central Nervous system - Spinal nerves and autonomic nervous system	2	0
	2. Cranial Nerves	2	1
	3. Peripheral nervous system		
	1. Neuromuscular Junction	3	0
	2. Peripheral Nerves		
	3.—Sensory End Organs, Receptors and types of Receptors		
	Applied anatomy		
3.	Central Nervous System	1	0
	1. Spinal segments and areas		
	2. Brain Stem, Cerebellum, Inferior colliculi, Superior Colliculi	3	2
	3. Thalamus, Hypothalamus, Corpus striatum	3	2
	4. Cerebral hemisphere, Lateral ventricles, Internal Capsule	3	2
	5. Blood supply to brain, areas of brain, circle of willis	2	2
	6. CSF circulation	1	0
	7. Basal Ganglia, The pyramidal system, extra pyramidal systems	2	2
	8. Pons, medulla	2	1
	Applied anatomy		
4.	Head, Neck	3	2
	1. Soft parts: Muscles of the face, nerve and blood supply		

	2. Structure of internal ear		
	3.Extra ocular muscles, nerve and blood supply	2	2
	4.Triangles of the Neck with muscles and blood supply	3	2
	5.Pharynx, Larynx, nerve and blood supply	3	1
	6.Tongue, Nose and Parotid region	2	1
	Applied Anatomy		
	List of Practical / Demonstrations: Identification of cranial and peripheral nerves, important blood vessels, parts of head, neck, brain and spinal cord including surface Anatomy. Identification of the mandible, bones of the skull, structures passing through the foramina of the skull, parts, attachment of the muscles, nerves and vessels relation to bone. Identification of section of the brain		
	Back, Spine, Inter vertebral disc, Pelvis	3	3
	1. Osteology : Vertebral Column, Curvatures, Movements		
	2. Arthrology: SI joint, intervertebral joints	2	2
	3. Spinal cord– (Tracts)	2	2
	4. Meninges	2	0
	5. Applied anatomy- abnormal curvatures, P.I.V.D., lumbar puncture.	2	
5.	Soft tissue: Pre and Para vertebral muscles, Pelvic girdle and muscles of the pelvic floor.	2	2
	Applied anatomy		
	<ul style="list-style-type: none"> List of Practical / Demonstrations: Demonstration of the muscles of the back, pelvic girdle, pre and para vertebral muscles, movements in joints, identification of body prominences on inspection and by palpation. Identification of the bones of the vertebral column (cervical, thoracic, lumbar, sacral and coccygeal) parts, attachment of the muscles and relation of nerves and vessels to bone. 		
6.	Surface Markings of Various Organs and Bony Prominences	0	3
Section II			
	Lower Limb Anatomy :		
	Osteology		
	1. Hip bone	2	2
	2. Femur	2	2
	3. Tibia, Fibula, Patella	4	3
	4. Tarsals, Metatarsals and Phalanges	2	2
7.	5. Soft Part- Gluteal region, Front and back of thigh (femoral triangle, femoral canal and inguinal canal), Medial side of thigh (adductor canal). Nerves of the lower extremity	4	3
	6. Lateral side of thigh, Popliteal fosse, Anterior and Posterior compartment of leg, Sole of foot, Lymphatic drainage of Lower limb, Venous drainage of Lower limb, Arterial supply of Lower limb,.	4	3
	Arches and Skin of foot	2	1
	Joints – lower limbs		
	7. Hip joint	2	1

	8. Knee joint	2	1
	9. Ankle joint	2	1
	10. Joints of the foot	2	1
	Applied Anatomy	1	0
	<ul style="list-style-type: none"> List of Practical / Demonstrations: Demonstration of the muscles of the lower extremity, movements in joints, identification of body prominences on inspection and by palpation, points of palpation of nerves and arteries. Identification of the bones of the lower extremity, side determination, parts, attachment of the muscles and relation of nerves and vessels to bone. 		
	Abdomen		
	1. Anterior abdominal wall muscles, functions, nerve supply, action	3	0
	Location, size, shape, features, blood supply, nerve supply and functions of the following:	2	1
	2. Stomach		
	3. Liver	2	1
8.	4. Spleen, Pancreas	2	2
	5. Gall bladder	2	1
	6. Anatomy of digestive organs- esophagus, intestine, rectum etc...	2	
	7. List of Practical / Demonstrations: Demonstration of the muscles of anterior abdominal wall, surface marking of various abdominal organs and identification of the parts of abdominal organs.	0	2
	Applied anatomy		
	Endocrine System		
	1. Position, shape, size, function, blood supply and nerve supply of the following glands: Hypothalamus and pituitary gland, thyroid glands, parathyroid glands.	3	0
9.	2. Position, shape, size, function, blood supply and nerve supply of the following glands: Pancreatic islets, ovaries and testes, pineal glands, thymus. Adrenal glands.	3	2
	3. List of Practical / Demonstrations: Identification and surface anatomy of the endocrine organs.	0	2
	Applied anatomy		
	Urogenital system		
	1. Anatomy of urinary organs, kidney, ureter, urinary bladder, urethra in males and females.	3	2
10.	2. Position, shape, size, features, blood supply and nerve supply of the male and female reproductive system.	3	0
	3. List of Practical / Demonstrations: Identification and surface anatomy of the uro-genital organs. Identification of the right and left kidney, surface marking and section of the same.	0	2
	Applied anatomy		
11.	Surface markings of various organs and bony prominences	0	1
Instruction Method			
1. Teaching and training sessions will be carried out through active learning. Active participation			

and contribution in group discussion and seminars are mandatory for students

2. Lectures to be conducted with the help of black board and/or audio-visual aids that includes multi-media projector, OHP, etc.
3. Assignments based on course content will be given to the students at the end of each unit/topic and will be evaluated at regular interval
4. The course includes a laboratory where the students have an opportunity to build and appreciation for the concepts being taught in lectures.

Text Books

1. Human Anatomy: Regional and Applied, Chaurasia, B D, CBS, New Delhi 2004, Vol: 1, 2, 3
2. Human Osteology: Singh, Inderbir, Jaypee, New Delhi 1997
3. Text Book of Human Histology: Singh, Inderbir, Jaypee, New Delhi 1997

Reference Books

1. Principles of anatomy and physiology: 8th edition. Tortora. Harper & Row Publications.
2. Cunningham's Manual of Practical Anatomy: 15th edition Vol: 1, 2, 3. Singh, Inderbir, Oxford Publications
3. Anatomy & Physiology: 8th edition. Ross & Wilson's, Churchill Livingston,
4. Clinical Anatomy for Medical Students: 7th edition. Snell, Richard S, Little- Brown. Lippincott Williams & Wilkins, Boston 1995
5. Gray's Anatomy: 39th / 40th edition. Henry Gray. Barnes & Noble publication.
6. Grant's atlas of anatomy: 10th edition. Anne MR. Lippincott Williams & Wilkins