

FACULTY OF INDIAN MEDICAL SYSTEM, SGT UNIVERSITY GURGAON

RACHANA SHARIR (ANATOMY)

SI No	Topic	Domain	Time
1.	1. ShariropkramaniyaShaarira i. Sharira and shaariravyakhya (definitions of sharira and shaarira), ii. shadangatvam (six regions of the body), angapratyangavibhaga (sub divisions). iii. Mritasharirsamshodhan. Shaarirashastravibhaga, shaariragyanprayojana . iv. Constitution of purusha according to dhatubheda, panchabhautikatvam, trigunatmakatvam, tridoshamayatvam, doshadhatumala-mulakatvam v. karma purusha.	} Must know Nice to know Must know	4 hrs
2.	2. ParibhashaShaarira Kurcha, Kandara, jala, asthisanghat, seemanta, seevani, rajju, snayu and lasika.	Desirable to know	4 hrs
3.	3.GarbhaShaarira i. Garbha definitions, ii. explanation of shukra, artava, garbhadhana. . iii. lingavinischaya, iv. masanumasikagarbhavridhhi-krama, garbhottpadakbhava, v. garbhavriddhikara bhava, vi. garbhaposhana, vii. Role of tridosha and panchmahabhuta in the fetal development viii. Beeja, bejabhaga and bejabhagavayava, ix. aparanirmana ,nabhinadinirmana. Aangapratyangautpatti.	} Must know } Desirable to know	15hrs
4.	4. PramanaShaarira: Angulipramana.	Nice to know	3 hrs
5.	5. AsthiShaarira i. Asthivyakhya, number, ii. Types of asthi iii. asthiswaroopa, iv. vasa, meda and majja	} Must know } Nice to know	4hrs

	Topic	Domain	Time
5	6. Sandhi Shaarira Sandhi vyakhya, numbers, types of asthi sandhi.	Must know	6 hrs
6	7. Sira, Dhamani, Srotas Shaarira a) Definition, types and number of sira and dhamani. b) Description of Hridaya. c) Srotoshaarira: Definition, types of srotas and srotomula.	} Nice to know Must know	6hrs
7	8. Peshi Shaarira a) Peshivyakhya, structure, types, number and importance. b) Description of Peshi.	Nice to know	3hrs
8	9. Koshtha Evam Ashaya Shaarira a) Definition of koshtha and number of koshthanga. b) Types and description of ashaya.	Desirable to Know	6hrs
9	10. Kalaa Shaarira Kalaa: definition and types.	Desirable to Know	4 hrs
10	11. Uttamangiya Shaarira Shatchakra, ida, pingala and sushumnanadi - brief description.	Desirable to Know	8 hrs
11	12. Marma Shaarira Marma: definition, number, location, classification, clinical importance with viddhalakshana. Explanation of trimarmas. Detail description of marmas.	Must know	12hrs
12	13. Indriya Shaarira Definition of indriya, indriyaartha and indriyaadhistan, their number and importance. Description of gyanendria, karmendriya and ubhayendriya (manas).	Nice to know	5 hrs
13	1. Definition and branches of anatomy. Preservation methods of the cadaver.	Must know	6 hrs
14	2. Anatomical Terminologies Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves,.	Must know	4 hrs
15	3. Embryology Definitions and branches of embryology. Embryo & fetus. Sperm & ovum, fertilization. Cleavage. Germ layers formation and their derivatives. Laws of heredity, Sex determination, Month-wise development of embryo. Foetal circulation, placenta formation, Umbilical cord formation.	Must know	15 hrs
16	4. Osteology Bone: Definition, ossification, structure and types. Description of bones with clinical anatomy.	Desirable to Know	25 hrs

17	5. Arthrology Joints: Definition, structure types and movements. Description of joints of extremities, vertebral joints and temporomandibular joint with their clinical anatomy.	Desirable to Know	10 hrs
18	6. Cardiovascular system a. Definition, types and structure of arteries and veins. b. Description of heart and blood vessels with their course and branches. c. Pericardium with applied aspect.	Must know	8 hrs
19	7. Lymphatic system Definition, types and structure of lymph vessels, lymph glands with their clinical aspect.	Desirable to Know	4 hrs
20	8. Myology a) Structure and types of muscles. b) Description of muscles; their origin, insertion, actions, nerve supply and clinical anatomy.	Desirable to Know	8hrs
21	1. Respiratory System a. Bronchial tree and lungs with their clinical aspects. b. Respiratory tract: nasal cavity, pharynx, larynx, trachea, bronchial tree. c. Pleura with its clinical aspects. d. Diaphragm.	Must know	10 hrs
22	2. Digestive system a. Organs of digestive tract (alimentary tract) with their clinical aspects. b. Digestive glands: liver, spleen and pancreas. c. Description of peritoneum with its clinical aspects.	Must know	30 hrs
23	3. Urinary System Urinary tract: kidney, ureter, urinary bladder and urethra with their clinical aspects.	Must know	8 hrs
24	4. Reproductive system a. Male Reproductive system: reproductive organs, tract and glands (prostate and seminal vesicles) with their clinical aspects. b. Female reproductive system: reproductive organs, tract and glands with their clinical aspects.	Must know	20 hrs
25	5. Endocrinology Definition, classification & description of endocrine glands (pituitary, thyroid, parathyroid, thymus and suprarenal glands) with clinical aspects.	Must know	8 hrs
26	6. Nervous System Nervous system: definition, classification and its importance. Description of brain and spinal cord. Description of peripheral nervous system: cranial and spinal nerves, nerve plexuses, and autonomic nervous system, formation and circulation of cerebrospinal fluid and blood supply of brain and spinal cord.	Must know	45 hrs
27	7. Sensory organs Description of structures of eye, ear, nose, tongue and skin with their clinical aspects.	Must know	20 hrs

28	8. Surface and radiological anatomy a. Study of radio-imaging of limbs, abdomen, pelvis and vertebral column with its clinical application. b. Surface anatomy of thoracic and abdominal viscera.	Desirable to Know	9 hrs
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CURRICULUM PLANNING

Sl No	Topic	Learning Objectives	Teaching Guidelines	Methodology	Time
1	Sharirupkramaniya Shaarira	<p>1. Write Definitions of sharira and shaarira,</p> <p>2. Explain shadangatvam (six regions of the body), anga pratyanga vibhaga.</p> <p>3. Describe the ayurvedic aspect of Mrita sharir samshodhan.</p> <p>4. Discuss Shaarira shastra vibhaga, shaarira gyan prayojana .</p> <p>5. Discuss the Constitution of purusha according to dhatubheda, panchabhautikatvam, trigunatmakatvam, tridoshamayatvam, karma purusha, and doshadhatumalamulakatvam.</p>	<p>To cover ayurvedic aspect of sharir and shaarir. Definition of sharir. Importance of the knowledge of sharir, six regions of the sharir, and subdivisions of the sharir according to aacharya Sushruta.</p> <p>Method of dead body preservation and dissection according to acharya Sushruta as well as according to modern science.</p> <p>To cover the constitution of the purush according to dhatubhed, karma purush,</p> <p>To explore the concept of panchabhautikatvam, trigunatmakatvam, tridoshamayatvam and doshadhatumalamulakatvam of sharira.</p>	<ul style="list-style-type: none"> • Didactic • PPT • Memorization of verses 	4 hrs
2	Paribhasha Shaarira	State the various ayurvedic terminologies and its definition like Kurcha, Kandara, jala, asthisanghat, seemanta, seevani, rajju, snayu and lasika etc.	To correlate the ayurvedic terminologies with contemporary science, their total number and locations in body.	<ul style="list-style-type: none"> • Group Discussion • PPT • Tutorials 	4 hrs
3	Garbha Shaarira	Write the definition of Garbha, explain shukra and artava. garbhadhana. Discuss the Role of tridosha and panchmahabhuta in the fetal development.	To cover the Ayurvedic aspect of formation of garbha, its definition. Concept of purush beej and stri beej (gamets), Action of mahabhutas and tridosha in the developing embryo.	<ul style="list-style-type: none"> • Didactic • Group Discussion • PPT • Tutorials • Memorization of verses. 	15hrs

		<p>Comprehend the concept of Beeja, beejabhaga and beejabhagavayava, Discuss linga vinischaya of garbha. Describe the Masanumasika garbha vriddhi-krama, Explain garbhottpadakbhava, garbhavriddhikara bhava, garbha poshana, apara nirmana , nabhinadi nirmana. Aanga pratyanga utpatti.</p>	<p>Correlation of beej, beejabhaga and beejabhagavayav with modern hereditary concept. Ayurvedic aspect of determination of sex in embryo. To cover the monthwise development of garbha according to ayurveda as well as modern embryology. To explain the factors essential for the formation of garbha and its development (vriddhikar bhava), formation of apara (placenta) and nabhinadi (umbilical cord) Formation of various organs in garbha.</p>		
4	Pramana Shaarira	<p>Anguli pramana. Anjali pramana</p>	<p>To explain the method of measurement of length, width or circumference of an individual or body parts by the means of fingers of the same individual. (ayurvedic anthropometry)</p>	<ul style="list-style-type: none"> • Didactic • Tutorials 	3 hrs
5	Asthi Shaarira	<p>Asthi vyakhya, number, types, asthi swaroopa, vasa, meda and majja</p>	<p>To cover the number of asthi according to various acharya. Types of asthi as well as their locations in body. Asthi utpatti (formation). Nature of asthi. Vasa, Meda and majja dhatu.</p>	<ul style="list-style-type: none"> • Group Discussion • Instructive • PPT 	4hrs
6	Sandhi Shaarira	<p>1. Discuss the Sandhi vyakhya, total numbers according to different aacharya. 2. Ayurvedic classification of asthi sandhi.</p>	<p>To cover the definition of sandhi, their total number according to various acharya. Types of sandhi along with their location according to ayurveda.</p>	<ul style="list-style-type: none"> • Didactic • PPT • Group Discussion 	6 hrs
7	Sira, Dhamani, Srotas Shaarira	<p>a)Definition, types and number of sira and dhamani. b) Description of Hridaya. c) Sroto shaarira: Definition, types of srotas and srotomula.</p>	<p>To narrate the concept of sira, dhamani, srotas and Hridaya. Total number of srotas and their main locations. Total number of sira and dhamani. Difference between sira, dhamani and srotas.</p>	<ul style="list-style-type: none"> • Didactic • PPT • Instructive 	6hrs

8	Peshi Shaarira	a) Define Peshi, and enumerate the structure, types, number and importance of peshi.	To cover the definition of peshi, their total number, types and functions according to ayurveda.	<ul style="list-style-type: none"> • Didactic • PPT 	3hrs
9	Koshtha Evam Ashaya Shaarira	a) Define of koshta and number of koshtanga. b) Describe Ashaya and explain its Types, total numbers in male and females.	To discuss the definition of koshta, number of koshtanga. Definition of Ashaya, their number and types.	<ul style="list-style-type: none"> • Didactic • PPT 	6hrs
10	Kalaa Shaarira	Define Kalaa and its seven types according to sushruta.	To cover the definition of kalaa and its types along with its main locations.	<ul style="list-style-type: none"> • Didactic • PPT • Group Discussion 	4 hrs
11	Uttamangiya Shaarira	i. Define Shatchakra, and explain its structure. ii. Explain 3 main nadi - ida, pingala and sushumna - brief description.	To cover the concept of shatachakras namely mooladhar, swadhisthana, manipoor, anahat, vishuddha, aagnya etc. To cover the detailed introduction of three main nadis namely Ida, Pingala and Sushumna, their course and properties.	<ul style="list-style-type: none"> • Didactic • PPT • Students Seminar 	8 hrs
12	Marma Shaarira	i. Define the marma , their total number and location. ii. Classify the marma according to main structures. iii. Classify the marma according to regions of body. iv. State the clinical importance of marma with viddha lakshana. v. Explain the importance of trimarmas.	To cover the definition of marma, correlation of these vital points with modern anatomical structures, their total number, their classification depending upon the structures, depending upon the effects of injury at these points, depending upon	<ul style="list-style-type: none"> • Group Discussion • Didactic • Tutorials • Memorization • Poster presentation 	12 hrs
13	Indriya Shaarira	i. Definition of indriya, indriya artha and indriya adhistan, their number and importance. ii. Description of gyanendria, karmendriya and ubhayendriya (manas).	To cover the definition, structure and function of indriya, their location, total number, main mahabhoot present at these indriya. To explain the function of gyanendriya, karmendriya and ubhayendriya.	<ul style="list-style-type: none"> • Didactic • PPT 	5 hrs

14	Definition and branches of anatomy. Preservation methods of the cadaver	i. Define anatomy. ii. Discuss the branches of anatomy iii. Explain the importance of Dissection and preservation methods of cadaver.	i. To Introduce about the history and ancient scholars of anatomy. ii. To Introduce the approaches to study anatomy iii. To cover the subdivisions of anatomy with their practical importance. iv. To discuss the methods of dead body preservation, chemicals used for preservation.	<ul style="list-style-type: none"> • Didactic • PPT • Practical Demonstration 	6 hrs
15	Anatomical Terminologies	i. Define the terms used for describing the structure and function of different regions of gross anatomy. ii. Define the terms related to bones, muscles, blood vessels. iii. Describe the anatomical position. iv. Define the anatomical planes, sections, and directional terms used to describe the human body. v. some of the basic structures that compose the body such as fascia, tendon, ligaments, muscle, bursa etc.	To introduce with the anatomical terminology to describe the different structures and their functions precisely. To cover the terms related to movements at the various joints. To explain the different planes, sections and positions of body. To introduce terms related to some of the basic structures of body like fascia, retinaculum, aponeurosis, bursa, ligaments etc.	<ul style="list-style-type: none"> • Didactic • Tutorials 	4 hrs
16	Embryology	i. Definitions and branches of embryology. ii. Discuss the structure and formation of Sperm & ovum. iii. Discuss the Fertilization, Cleavage, Germ layers formation and their derivatives. iv. Laws of heredity, Sex determination. v. Describe Month-wise development of embryo. vi. Discuss the Foetal circulation. vii. Explain Placenta formation and Umbilical cord formation.	To define the embryo and embryology, its importance, why should medical students learn embryology, its subdivisions. Structure of sperm and Ovum, formation of gametes. To introduce the preliminary concept of cell division and chromosomes. To cover the preembryonic period which includes fertilization, cleavage, implantation and formation of germ layers.	<ul style="list-style-type: none"> • Didactic • Tutorials • PPT • Group Discussion 	15 hrs

			<p>To cover embryonic period from third week to end of eighth week in which further development of germ layers and formation of placenta, umbilical cord takes place.</p> <p>To discuss the fetal circulation and how it differs from adult circulation.</p>		
17	Osteology	<ol style="list-style-type: none"> 1. Describe the structure and properties of bone 2. Enumerate the Classification of bone 3. Discuss the ossification of bone 4. Discuss the individual bone with its external features, attachments and clinical aspect. 	<p>To cover the structure of bones, its composition and formation or ossification.</p> <p>To cover their classification depending upon their shape or ossification.</p> <p>To cover the external features and attachments of individual bones along with their clinical anatomy.</p>	<ul style="list-style-type: none"> • PPT • SIS • Didactic • Group Discussion • Students Seminar • Tutorials • Poster presentation 	25 hrs
18	Arthrology	<ol style="list-style-type: none"> 1. Describe the structural and functional Classification of joints. 2. State the different types of synovial joints and describe the characteristic features of typical synovial joints. 3. Describe the joints of extremities, vertebral joints and temporomandibular joint with their clinical anatomy. 	<p>To introduce the outline of the joints, their various classifications.</p> <p>To cover the functional classification.</p> <p>To cover the structural classification of joints.</p> <p>To introduce with the various structures present at individual joints like ligaments .</p> <p>To cover the movements possible at the joints of extremities, temporomandibular joint, intervertebral joints.</p>	<ul style="list-style-type: none"> • PPT • Didactic • SIS 	10 hrs

19	Cardiovascular system	<ol style="list-style-type: none"> a) Elucidate the structure of heart and its position within the thorax. b) Outline the differences between arteries and veins, capillaries and sinusoids. c) Discuss the conducting system of Heart. d) Discuss the different parts of aorta and its branches. e) Discuss the structure and function of Pericardium with applied aspect. 	<p>To introduce the major structures present in the mediastenum.</p> <p>To cover the major component of the cardiovascular system.</p> <p>To cover the external as well as internal structures of the heart, its valves, its fibrous structure, and clinical anatomy.</p> <p>To cover the parietal and visceral layer of pericardium and its clinical anatomy.</p>	<ul style="list-style-type: none"> • PPT • Didactic • Students Seminar • Tutorials 	8 hrs
20	Lymphatic system	<ol style="list-style-type: none"> 1. Discuss the functions of lymphatic system. 2. Describe the components of lymphatic system. 3. Explain the circulation of lymph 4. Describe the structure of Lymph node, Lymph vessels, ducts and lymph glands. 5. Short notes on Thoracic duct and right lymphatic duct. 6. Short notes on applied anatomy of lymphatic system. 	<p>-To define the lymph and lymphatic system, different structures constituting the lymphatic system, major ducts, role of bone marrow and thymus gland, peripheral lymphoid organs,</p> <p>--Structure of the lymph nodes,.</p> <p>- To cover the applied aspect of lymph nodes in immune mechanism, spread of cancer, infectious diseases etc.</p>	<ul style="list-style-type: none"> • Didactic • Instructive 	4 hrs
21	Myology	<ol style="list-style-type: none"> a) Define muscles and describe their four basic properties. b) Differentiate skeletal, cardiac and smooth muscles. c) Discuss group action of muscles and explain what is meant by synergistic and antagonistic muscle groups. b) Discuss the skeletal muscles; with their origin, insertion, actions, nerve supply and clinical anatomy. 	<p>To cover properties of muscles.</p> <p>To discuss the properties of skeletal, cardiac and smooth muscles.</p> <p>To cover the naming of the muscle depending upon their shape, action, location or attachment.</p> <p>To introduce the individual skeletal muscle with their attachments, action and clinical anatomy.</p>	<ul style="list-style-type: none"> • PPT • Didactic • Poster presentation 	8 hrs

22	<p style="text-align: center;">Respiratory System</p>	<ol style="list-style-type: none"> 1. Explain the external features of the lungs. 2. Discuss the contents of the Hilum. 3. Explain the Broncho-pulmonary segments and Bronchial tree with their clinical aspects. 4. Respiratory tract: nasal cavity, pharynx, larynx, trachea. 5. Name the paired and unpaired cartilages of larynx. 6. Describe the Pleura, difference between its two layers and its clinical aspects. 7. Describe the Diaphragm and its major openings. 	<p>To cover the introduction of the respiratory organs and their situation within the thorax.</p> <p>To explain the external features of the lung, including the root of the lung, their relations on right and left side.</p> <p>To explain the internal structure of the lungs with broncho-pulmonary segments, bronchial tree etc. And clinical anatomy of the lungs.</p> <p>To cover the two layers of pleura, difference between parietal and visceral layer of pleura, clinical anatomy of pleura.</p> <p>To discuss the structure of the trachea, its length, relations and bifurcation into two principal bronchus.</p> <p>To discuss the structure of the cartilages of the larynx and their clinical anatomy.</p> <p>To cover the diaphragm with its attachment, shape, major apertures, structures passing through these apertures at different level, its clinical anatomy.</p>	<ul style="list-style-type: none"> • PPT • Didactic • SIS • Students Seminar 	10 hrs
23	<p style="text-align: center;">Digestive system</p>	<ol style="list-style-type: none"> i. List the Organs of digestive tract (alimentary tract). ii. Explain the structure of stomach, its relations, blood supply, Nerve supply and clinical anatomy. iii. Discuss the structure of Duodenum iv. Discuss the difference 	<p>To cover the introduction of the organs of the GI Tract.</p> <p>To discuss the size shape, location curvatures of the oesophagus.</p> <p>To cover the location shape, external features, peritoneal and visceral relations of the stomach. Four</p>	<ul style="list-style-type: none"> • Didactic • SIS • Students Seminar • Group Discussion 	30 hrs

		<p>between small intestine and large intestine.</p> <p>v. Describe the structure of Rectum and anal canal with its clinical anatomy.</p> <p>vi. Digestive glands: liver, spleen and pancreas.</p> <p>vii. Discuss the portal vein, porto-caval anastomosis and its clinical anatomy.</p> <p>viii. Description of peritoneum, folds of peritoneum, greater sac and lesser sac etc. with its clinical aspects.</p>	<p>layers in its wall, cells of mucosa, Its blood supply, and clinical anatomy.</p> <p>To cover the size, length, relations and four parts of duodenum.</p> <p>To discuss the features of the jejunum and ileum of the small intestine, difference between them.</p> <p>To cover the features of the large intestine, difference between small and large intestine, peritoneal folds attached to intestine, mesentery, mesocolon etc.</p> <p>To cover the location, size, internal structure, of the sigmoid colon, rectum, and anal canal with their clinical anatomy.</p>		
24	Urinary System	<p>i. Discuss the external and internal features of Kidney.</p> <p>ii. State the structure of nephron.</p> <p>iii. Explain the gross structure and relations of urinary bladder.</p> <p>iv. Elucidate the difference between male and female urethra.</p>	<p>To introduce the organs of urinary system and their relations with some basic differences in male and female.</p> <p>To cover the external features and relations of kidney, difference between right and left kidney. To cover the internal structure of kidney and clinical anatomy of kidney.</p> <p>To discuss the surface marking of the kidney.</p> <p>To cover the features of ureter, and urinary bladder. Relations of pelvic viscera related to urinary bladder.</p> <p>To cover the length, course and parts of male and female urethra.</p>	<ul style="list-style-type: none"> • Didactic • PPT • SIS • Poster presentation 	8 hrs

25	Reproductive system	<ol style="list-style-type: none"> i. Describe the main organs comprising the male reproductive system ii. Outline the structure and functions of accessory glands of the male repro.system iii. Elucidate the location, structure and functions of Ovary, fallopian tube, Uterus and vagina. iv. Describe the main structures comprising the female external genitalia. 	<p>To introduce the organs of male and female reproductive system.</p> <p>To cover structure of testis, epididymis, ductus deference, seminal glands, ejaculatory ducts, prostate, bulbo-urethral glands and scrotum.</p> <p>To cover the external features and structure of ovary, its peritoneal relations, internal structure.</p> <p>To cover the structure, length and parts of the Fallopian tube.</p> <p>To cover the structure of the uterus, its relations, true and false ligaments of uterus along with its clinical anatomy.</p> <p>To cover the the external genitalia in males and females.</p>	<ul style="list-style-type: none"> • Didactic • PPT • Students Seminar • Group Discussion • Tutorials 	20 hrs
26	Endocrinology	<ol style="list-style-type: none"> 1. Define endocrine system and enumerate the important glands in the body. 2. Describe the structure and functions of pituitary gland. 3. Describe the structure and hormones of thyroid gland. 4. Demonstrate the location and structure of suprarenal gland and discuss the hormones secreted by it. 5. List the hormones secreted by endocrine pancreas. 	<p>To introduce the glands of endocrine system.</p> <p>To cover the location, size, shape and structure of pituitary gland along with its secretions and clinical anatomy.</p> <p>To cover the structure of thyroid gland, its location, relations, capsule, blood supply, nerve supply and clinical anatomy.</p> <p>To cover the external and internal structure of suprarenal gland, difference between right & left suprarenal glands, secretions of the adrenal cortex and medulla.</p> <p>To cover the endocrine part of the pancreas, endocrine hormones</p>	<ul style="list-style-type: none"> • Didactic • PPT • Students Seminar 	8 hrs

			secreted by pancrease.		
27	Nervous System	<ol style="list-style-type: none"> i. Outline the subdivisions of nervous system. ii. classify the nerves and discuss the reflex action iii. describe the meningeal covering of brain. iv. Describe the blood supply of brain. v. Describe the external features of spinal cord vi. Explain the ascending and descending tracts of spinal cord and their functions. vii. Describe the gross external features of cerebral hemispheres. viii. Discuss the parts of internal capsule. ix. Explain the gross features of cerebellum and its functions. x. Enumerate the cranial nerves in details. xi. Explain the external features of brain stem and Functions of mid brain, pons and medulla oblongata. xii. Outline the ventricles in brain. 	<p>To introduce the different parts of the nervous system.</p> <p>To introduce the development of neural tube and primary brain vesicles.</p> <p>To cover the three layers of meninges.</p> <p>To cover the external and internal features of cerebral hemispheres, white matter and grey matter of cerebrum, basal ganglion, internal capsule, corpus callosum.</p> <p>To cover the structure and functions of the thalamus and hypothalamus.</p> <p>To discuss the components of the brainstem, their gross features, various nucleus located in brainstem.</p> <p>To cover the ventricles and CSF circulation.</p> <p>To cover the external features of cerebellum, gross internal structures, main nucleus located inside cerebellum, functions of the cerebellum.</p> <p>To cover the cranial nerves and their area of innervations with its clinical anatomy.</p> <p>To cover the gross external features of spinal cord, ascending and descending tracts of spinal cord.</p>	<ul style="list-style-type: none"> • Didactic • PPT • Students Seminar • Group Discussion • Tutorials • SIS • Poster presentation 	45 hrs

28	Sensory organs	<ul style="list-style-type: none"> i. Describe the structure and functions of the skin. ii. Explain the gross anatomy of Nose and paranasal sinuses iii. Describe the structure of the Eye iv. Discuss the Structure of middle Ear. v. Discuss the semicircular canal and cochlea of inner ear. vi. Discuss the gross anatomy of Tongue and its extrinsic muscles and its clinical anatomy. 	<p>To cover the structure of skin, dermis and epidermis part of skin with its clinical anatomy.</p> <p>To cover the gross anatomy of the nasal cavity, to discuss the skeletal component of lateral wall of nose and nasal septum, to discuss the conchae and meatuses of lateral wall of nose.</p> <p>To discuss the paranasal air sinuses and their clinical significance.</p> <p>To cover the introduction of various parts of the eyeball, compartments of eyeball, its three main coats like outer fibrous coat, middle vascular coat, inner nervous coat.</p> <p>To cover the main extraocular and intrinsic muscles of eyeball with their nerve supply and action.</p> <p>To cover the the three main ares of ear-external ear, middle ear and inner ear, along with structure of the tympanic membrane, ear ossicles, membranous and bony labyrinth.</p> <p>To cover the shape, external features, four main types of papillae, extrinsic and intrinsic muscles of tongue, nerve supply and clinical anatomy of tongue.</p>	<ul style="list-style-type: none"> • PPT • Didactic • Tutorials • Students Seminar 	20 hrs
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29	Surface and radiological anatomy	i. Define radiological anatomy and list the various methods used for its study. ii. Describe X-rays and their properties. iii. Describe simple radiographic procedures and discuss their use in clinical practice. iv. Outline the Surface anatomy of visceral organs like kidney, liver, spleen, heart, lungs, stomach, pancreas etc.	To define the surface anatomy and its clinical significance. To discuss the surface anatomy of various visceral organs of abdominal and thoracic cavity. To cover the various radiological methods used in clinical practice, with its properties, indications and contra-indications.	<ul style="list-style-type: none"> • Didactic • Instructive • Group discussion 	9 hrs
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Reference Books :- S. No. Name of Book Author

1. BrihatShariramVaidyaratna- P.S. Varrier
2. AbhinavaShariram- Acharya Damodar Sharma Gaur
3. ManavaSharir (Revised Edition)- Prof. DinkarGovindThatte
4. ManavaBhrunaVigyana - Prof. DinkarGovindThatte
5. ManavaAngaRekhankanVikriyan - Prof. DinkarGovindThatte
6. SharirRachanaVigyan (English)- Vaidya P.G. Athawale
7. Manual of Practical Anatomy Cunningham Practical Manual Vol-1, Vol-2, Vol-3
8. Clinical Anatomy in Ayurveda - Prof. D.G. Thatte& Prof. Suresh Chandra
9. SharirRachanaVigyan (English)- Prof. D.G. Thatte
10. Ayurvedic Human Anatomy - Prof. Dr. Giridhar M. Kanthi
11. Regional Anatomy - B. D. Chaurasia
12. RachanaSharirVigyana - Dr. Mahendra Sing
13. relevant chapters of Brihatrayee and Laghuthrayee
14. Gray's Anatomy
15. Text Book of Human Anatomy- Inderbir Singh
16. Clinical Anatomy- Richard S Snell
17. Fundamentals of Human Anatomy- Dr. Chakraborty
18. Human Osteology - Poddar

Note:

Paper I

Part A – Sl.No – 1-12

Part A – Sl.No – 13-20

Paper II

Part A – Sl.No – 21-25

Part A – Sl.No – 26-29

Theory 2 papers – 200 marks (100 each paper)

Theory hours: 300

Practical – 100 Marks

Practical Hour: 200