



# **Sylhet MAG Osmani Medical College**

## **Academic Calendar & Lesson Planner 2026**

### **Phase I**

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## **Contributors**

All the teachers of the related subjects of Sylhet MAG Osmani Medical College

The academic calendar of Sylhet MAG Osmani Medical College is based on MBBS curriculum 2021.

The study methodology will be used as follows:

- Large group teaching
  - Lecture
  - Generic topic
- Small group teaching
  - Tutorial
  - Practical
  - Demonstration
  - Dissection
- Integrated teaching

<b>Subject</b>	<b>Page</b>
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Physiology	23-29
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# Anatomy

## ❖ Lecture

Time frame	Topics	Teaching hours
<b>1<sup>st</sup> Quarter (January-March)</b>		
Week 1	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Definition, subdivisions of anatomy &amp; its importance in the study of medicine</li> <li>● <b>General Anatomy:</b> Human cell – Basic organization, type of constituents,</li> <li>● <b>General Embryology:</b> Introduction: Terms &amp; definition, significance of study of embryology</li> </ul>	<ul style="list-style-type: none"> <li>● Monday, Tuesday, Wednesday &amp; Thursday 9 to 10 am</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Anatomical terminologies, anatomical planes &amp; positions</li> <li>● <b>Cell biology:</b> Human cell – cell membrane</li> <li>● <b>General Embryology:</b> Basic process of development : Proliferation, growth, differentiation, inductors, evocators &amp; organizer</li> </ul>	
Week 3	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Skeletal system: Bones (L1) – Classification, composition, functions</li> <li>● <b>Cell biology:</b> Nucleus – Structure, function</li> <li>● <b>General Embryology:</b> Cell division: Types, Chromosomal changes during cell division with anomalies</li> </ul>	
Week 4	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Skeletal system: Bones (L2) – periosteum &amp; endosteum, Parts of developing long bone, blood supply</li> <li>● <b>Cell biology:</b> Cytoplasm, organelles &amp; inclusions – Structure &amp; functions</li> <li>● <b>General Embryology:</b> Cell division: Types, Chromosomal changes during cell division with anomalies</li> </ul>	
Week 5	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Skeletal system: Bones (L3) – Ossification – Definition, centers, processes, factors affecting bone growth</li> <li>● <b>Cell biology:</b> Cytoplasm, organelles &amp; inclusions – Structure &amp; functions</li> <li>● <b>General Embryology:</b> Gametogenesis &amp; maturation of germ cells</li> </ul>	
Week 6	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Cartilage: Composition, types, characters, locations &amp; functions.</li> <li>● <b>Cell biology:</b> Functional correlation of different types of cell (protein secreting, ion transporting, steroid secreting, mucus secreting, antibody producing cell) in respect of their nuclear, cytoplasmic, membrane &amp; surface feature</li> </ul>	

	<ul style="list-style-type: none"> <li>● <b>General Embryology:</b> Gametogenesis &amp; maturation of germ cells</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Joint: Classifications, characters of each type &amp; movements</li> <li>● <b>Genetics:</b> Chromosome: Basic structure</li> <li>● <b>General Embryology:</b> Fertilization: Events, factors influencing fertilization</li> </ul>	
Week 8	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Joint: Stability of joints, clinical condition associated with joints, general plan of blood supply &amp; nerve supply</li> <li>● <b>Genetics:</b> Terms &amp; definition: Gene, gene locus, genome, genotype, phenotype, genetic trait etc.</li> <li>● <b>General Embryology:</b> Progress in 1<sup>st</sup> week of development</li> </ul>	
Week 9	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Muscular system: Different ways of classification, characteristics &amp; functions different types. Skeletal muscle – Classification, principle applied to innervations &amp; contraction</li> <li>● <b>General Histology:</b> Basic tissue – Definition, classification, components, distribution &amp; functions</li> <li>● <b>General Embryology:</b> Progress in 2<sup>nd</sup> week of development</li> </ul>	
Week 10	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Blood-Vascular system: components parts, general plan, structure, classification, difference between different types of vessels, nutrition &amp; innervations of vessels.</li> <li>● <b>General Histology:</b> Epithelial tissue – Definition, classification, components, distribution &amp; functions</li> <li>● <b>General Embryology:</b> Progress in 2<sup>nd</sup> week of development</li> </ul>	
Week 11	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Circulation: Types, characteristics of each type, vascular anastomosis: types, site, characteristics, functional &amp; clinical importance</li> <li>● <b>General Histology:</b> Connective tissue – Definition, classification, components, distribution &amp; functions</li> <li>● <b>General Embryology:</b> Progress in 3<sup>rd</sup> week of development</li> </ul>	
Week 12	<b>Eid-UI-Fitr (18.03.26-25.03.26)</b>	
Week 13	<ul style="list-style-type: none"> <li>● <b>General Anatomy:</b> Lymph vascular system: Components, characteristic features of lymph capillaries, comparison with blood capillary.</li> <li>● <b>General Histology:</b> Muscular tissue – Definition, classification, components, distribution &amp; functions</li> <li>● <b>General Embryology:</b> Progress in 3<sup>rd</sup> week of development</li> </ul>	

<b>2<sup>nd</sup> Quarter (April-June)</b>		
Week 14	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Lymphoid organ- Classification, distribution &amp; functions</li> <li>• <b>General Histology:</b> Muscular tissue – Definition, classification, components, distribution &amp; functions</li> <li>• <b>General Embryology:</b> Derivatives of germ layers: Ectoderm, mesoderm &amp; endoderm</li> </ul>	
Week 15	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Structure and functions of : Cell surface modification</li> <li>• <b>General Histology:</b> Structure and functions of : Intercellular junction</li> <li>• <b>Systemic histology:</b> Histology of respiratory system: Respiratory tract &amp; lung</li> </ul>	
Week 16	<b>Pre term leave</b>	
<b>Week 17-18</b>	<b>1<sup>st</sup> term examination</b>	
Week 19	<b>Post term leave</b>	
Week 20	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Structure and functions of : Intercellular junction</li> <li>• <b>Neuroanatomy:</b> Introduction to nervous system, composition of grey and white matter</li> <li>• <b>Systemic Histology:</b> Histology of vascular system: Different types of artery, capillary &amp; vein</li> </ul>	
Week 21	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Structure and functions of : Cell surface modification</li> <li>• <b>Neuroanatomy:</b> Introduction to nervous system, composition of grey and white matter</li> <li>• <b>General Embryology:</b> Fetal membranes: Placenta, chorion, amnion, umbilical cord, yolk sac etc.</li> </ul>	
Week 22	<b>Eid–Ul-Adha (25.05.26–01.06.26)</b>	
Week 23	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Structure and functions of : Intercellular junction</li> <li>• <b>Neuroanatomy:</b> Introduction to nervous system, composition of grey and white matter</li> <li>• <b>General Embryology:</b> Fetal membranes: Placenta, chorion, amnion, umbilical cord, yolk sac etc.</li> </ul>	
Week 24	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Histological structure of Skeletal muscle tissue</li> <li>• <b>Neuroanatomy:</b> Autonomic nervous system: parts, nerve plexuses &amp; ganglia</li> <li>• <b>General Embryology:</b> Fetal membranes: Placenta, chorion, amnion, umbilical cord, yolk sac etc.</li> </ul>	
Week 25	<ul style="list-style-type: none"> <li>• <b>General Histology:</b> Histological structure of Smooth muscle tissue and Cardiac muscle tissue.</li> </ul>	

	<ul style="list-style-type: none"> <li>● <b>Neuroanatomy:</b> Autonomic nervous system: parts, nerve plexuses &amp; ganglia</li> <li>● <b>General Embryology:</b> Twins</li> </ul>	
Week 26	<ul style="list-style-type: none"> <li>● <b>General Histology:</b> Mechanism of muscle contraction</li> <li>● <b>Neuroanatomy:</b> Revision class</li> <li>● <b>General Embryology:</b> Teratology</li> </ul>	
<b>3<sup>rd</sup> Quarter (July-September)</b>		
Week 27	<ul style="list-style-type: none"> <li>● <b>General Histology:</b> Revision class</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of vertebral column</li> <li>● <b>General Embryology:</b> Revision class</li> </ul>	
Week 28	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Histological structure of lymphoid organs: Thymus, lymph node &amp; tonsil</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of muscular system</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of upper &amp; lower limb</li> </ul>	
Week 29	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Histological structure of lymphoid organs: Thymus, lymph node &amp; tonsil</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of digestive system with associated glands</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of digestive system with associated glands</li> </ul>	
Week 30	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Digestive system &amp; associated glands: Tongue, esophagus, stomach, intestine</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of digestive system with associated glands</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of respiratory system</li> </ul>	
Week 31	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Digestive system &amp; associated glands: Tongue, esophagus, stomach, intestine</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of cardiovascular system &amp; aortic arches</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of cardiovascular system &amp; aortic arches</li> </ul>	
Week 32	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Digestive system &amp; associated glands: Tongue, esophagus, stomach, intestine</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of cardiovascular system &amp; aortic arches</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of coelomic cavity &amp; the diaphragm</li> </ul>	
Week 33	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Digestive system &amp; associated glands: Tongue, esophagus, stomach, intestine</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of skin &amp; mammary gland</li> </ul>	



	<ul style="list-style-type: none"> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of urinary system</li> </ul>	
Week 34	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Exocrine glands: Salivary glands</li> <li>● <b>Systemic Histology:</b> Urinary system: kidney, ureter &amp; urinary bladder</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of urinary system</li> </ul>	
Week 35	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Urinary system: kidney, ureter &amp; urinary bladder</li> <li>● <b>Systemic Histology:</b> Urinary system: kidney, ureter &amp; urinary bladder</li> <li>● <b>Systemic Histology:</b> Male reproductive system: Testis, epididymis, vas deferens, seminal vesicle</li> </ul>	
Week 36	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> :Male reproductive system: Testis, epididymis, vas deferens, seminal vesicle</li> <li>● <b>Systemic Histology:</b> Female reproductive system: Ovary, uterus, uterine tube, vagina</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of male &amp; female reproductive system</li> </ul>	
Week 37	<ul style="list-style-type: none"> <li>● <b>Systemic Histology:</b> Female reproductive system: Ovary, uterus, uterine tube, vagina</li> <li>● <b>Systemic Histology:</b> Revision class</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of male &amp; female reproductive system</li> </ul>	
Week 38	<ul style="list-style-type: none"> <li>● <b>General Histology:</b> Revision class</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of male &amp; female reproductive system</li> <li>● <b>Systemic Embryology:</b> Revision class</li> </ul>	
Week 39	Pre term leave	
<b>4<sup>th</sup> Quarter (October-December)</b>		
Week 40-41	2 <sup>nd</sup> Term Examination	
Week 42	Durga Puja (17.10.26–22.10.26)	
Week 43	Post term leave	
Week 44	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Nerve fibers: Definition, classifications, structure, location &amp; function, myelination, degeneration &amp; regeneration.</li> <li>● <b>General Histology:</b> Structure and functions of nervous tissue, neuron, Neuroglia</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of pituitary &amp; suprarenal gland</li> </ul>	
Week 45	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Receptors: Definition, structure, classifications, location &amp; functions. Synapse: Definition, structure, classification &amp; functions</li> </ul>	

	<ul style="list-style-type: none"> <li>● <b>General Histology:</b> General Histology: Structure and functions of nervous tissue, neuron, Neuroglia</li> <li>● <b>Systemic Embryology:</b> Systemic Embryology: Development &amp; their anomalies of face &amp; neck &amp; their associated organs</li> </ul>	
Week 46	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Coverings of brain &amp; spinal cord: Pia, arachnoid &amp; dura matter, their extension, folds, spaces, nerve supply &amp; blood supply</li> <li>● <b>Systemic Histology:</b> Histological structure of the endocrine glands: Pituitary, thyroid, parathyroid, adrenal glands</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of face &amp; neck &amp; their associated organs</li> </ul>	
Week 47	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Coverings of brain &amp; spinal cord: Pia, arachnoid &amp; dura matter, their extension, folds, spaces, nerve supply &amp; blood supply</li> <li>● <b>Systemic Histology:</b> Histological structure of the endocrine glands: Pituitary, thyroid, parathyroid, adrenal glands</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of face &amp; neck &amp; their associated organs</li> </ul>	
Week 48	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Ventricular system &amp; CSF: Location of different ventricles of brain the formation, composition, circulation, absorption &amp; function of CSF.</li> <li>● <b>Systemic Histology:</b> Histological structure of skin and its appendages</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of nervous system</li> </ul>	
<b>Week 49-50</b>	<b>Sports &amp; cultural week (02.12.26–11.12.26)</b>	
Week 51	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Ventricular system &amp; CSF: Location of different ventricles of brain the formation, composition, circulation, absorption &amp; function of CSF.</li> <li>● <b>Systemic Histology:</b> Revision class</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of nervous system</li> </ul>	
Week 52	<ul style="list-style-type: none"> <li>● <b>Neuro-Anatomy:</b> Blood brain barrier &amp; blood CSF barrier: Composition &amp; function</li> <li>● <b>Neuro- Anatomy:</b> Cerebrum (motor areas): Gyri, sulci &amp; important functional areas with effects of lesion</li> <li>● <b>Systemic Embryology:</b> Development &amp; their anomalies of nervous system</li> </ul>	

<b>Next Year 1<sup>st</sup> Quarter (January-March)</b>		
Week 1	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Cerebrum (motor areas): Gyri, sulci &amp; important functional areas with effects of lesion,</li> <li>● <b>Neuro- Anatomy:</b> Pyramidal &amp; extrapyramidal system &amp; effects of their lesion,</li> <li>● Preparatory Class</li> </ul>	
Week 2	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Cerebellum: Parts, functional lobes, nuclei, peduncles &amp; functions, blood supply, clinical conditions</li> <li>● <b>Neuro- Anatomy:</b> Cerebellum: Parts, functional lobes, nuclei, peduncles &amp; functions, blood supply, clinical conditions</li> <li>● Preparatory Class</li> </ul>	
Week 3	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Basal nuclei: locations, parts, functions, artery supply and clinical conditions</li> <li>● <b>Neuro- Anatomy:</b> Basal nuclei: locations, parts, functions, artery supply and clinical conditions</li> <li>● Preparatory Class</li> </ul>	
Week 4	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Motor cranial nerves: Classification, functional components, cranial nerve nuclei &amp; course of cranial nerves</li> <li>● <b>Neuro- Anatomy:</b> Mixed cranial nerves: Classification, functional components, cranial nerve nuclei &amp; course of cranial nerves</li> <li>● Preparatory Class</li> </ul>	
Week 5	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Dermatome &amp; axial line</li> <li>● <b>Neuro- Anatomy:</b> Cerebrum ( sensory areas): Gyri, sulci &amp; important functional areas with effects of lesion, mode of blood supply</li> <li>● Preparatory Class</li> </ul>	
Week 6	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Cerebrum ( sensory areas): Gyri, sulci &amp; important functional areas with effects of lesion, mode of blood supply</li> <li>● <b>Neuro- Anatomy:</b> Ascending tract of spinal cord with effects of lesions.</li> <li>● Preparatory Class</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Diencephalon: Parts &amp; function</li> <li>● <b>Neuro- Anatomy:</b> Sensory cranial nerves &amp; smell, visual &amp; auditory pathway</li> <li>● Preparatory Class</li> </ul>	
Week 8	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Spinal cord: Length, extension, enlargement, blood supply, cross-sections at different levels</li> </ul>	

	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Brain stem: blood supply, cross sections at different levels</li> <li>● Preparatory Class</li> </ul>	
Week 9	<ul style="list-style-type: none"> <li>● <b>Neuro- Anatomy:</b> Reticular formation, Limbic system</li> <li>● <b>Neuro- Anatomy:</b> Revision class</li> <li>● Preparatory Class</li> </ul>	
Week 10	<b>Pre term leave</b>	
<b>Week 11</b>	<b>Eid-UI-Fitr</b>	
<b>Week 12-13</b>	<b>3<sup>rd</sup> Term Examination</b>	
<b>Next Year 2<sup>nd</sup> Quarter (April-June)</b>		
Week 14-17	<b>Preparatory Leave</b>	
<b>Week 18-26</b>	<b>1<sup>st</sup> Professional Examination &amp; Result</b>	

## ❖ Small Group Teaching

- Tutorial
- Practical
- Demonstration
- Dissection

### ✓ Tutorial + Dissection + Demonstration Classes

✓ Tutorial class: Class hour 1 hour duration from 8am to 9am two days in a week (every Monday & Tuesday).

✓ Dissection & demonstration class: Class hour 2 hours duration from either 10.30 am to 12.30 pm or 12.30 pm to 2.30 pm. Five days in a week.

Time frame	Days	Topics	Teaching hours
<b>1<sup>st</sup> Quarter (January-March)</b>			
<b>Thorax</b>			
Week 1	Day 1	• Thoracic wall formation & thoracic vertebrae	<b>Teachers</b> Curator / Lecturer / Medical officer <b>Teaching hours</b> 45 hours/ 4 weeks
	Day 2	• Thoracic cavity & sternum	
	Day 3	• Intercostals spaces & ribs	
	Day 4	• Mediastinum & intercostals nerve & spinal nerve	
	Day 5	• Bones & joints of the thorax	
Week 2	Day 1	• Review class on above all topics	
	Day 2	• Item exam + thoracic vertebra	
	Day 3	• Heart with pericardium	
	Day 4	• Heart with pericardium	
	Day 5	• Heart with pericardium	
Week 3	Day 1	• Review class on above all topics	
	Day 2	• Item exam + sternum	
	Day 3	• Lung with pleura, trachea & bronchus	
	Day 4	• Lung with pleura, trachea & bronchus	
	Day 5	• Review class on above all topics	
Week 4	Day 1	• Item exam + ribs	
	Day 2	• The diaphragm	
	Day 3	• The diaphragm	
	Day 4	• Item exam + joints of the thorax	

	Day 5	<ul style="list-style-type: none"><li>Blood vessels, nerves &amp; lymphatics of the thorax</li></ul>	
Week 5	Day 1	<ul style="list-style-type: none"><li>Blood vessels, nerves &amp; lymphatics of the thorax</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Oesophagus</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Preparatory class for card final exam</li></ul>	
Week 6-7	Card final examination (Thorax)		
Superior extremity			
Week 8	Day 1	<ul style="list-style-type: none"><li>Clavicle &amp; Scapula</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Humerus &amp; Radius</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Ulna &amp; Articulated hand</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Pectoral region with mammary glands &amp; clavicle</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Review class + clavicle</li></ul>	
Week 9	Day 1	<ul style="list-style-type: none"><li>Item exam+ clavicle</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Axilla &amp; scapula</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Review class + scapula</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Item exam+ scapula</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Superficial dissection of the upper limb, back and scapular region including quadrangular &amp; triangular space &amp; humerus</li></ul>	
Week 10	Day 1	<ul style="list-style-type: none"><li>Review class + humerus</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Item exam+ humerus</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Front of the arm, forearm &amp; radius</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Front of the arm, forearm and palm &amp; radius</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Review class + radius</li></ul>	
Week 11	Day 1	<ul style="list-style-type: none"><li>Item exam+ radius</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Back of the arm, forearm &amp; ulna</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Back of the arm, forearm and dorsum of the hand</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Review class + ulna</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Item exam + ulna</li></ul>	
Week 12	Eid-UI-Fitr (18.03.26-25.03.26)		
Week 13	Day 1	<ul style="list-style-type: none"><li>Blood supply, lymphatic drainage, cutaneous innervations &amp; dermatomes of superior extremity</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Skeleton of hand, Joint of upper limb &amp; clinical anatomy</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Review class + articulated hand</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Item exam+ articulated hand</li></ul>	

2 <sup>nd</sup> Quarter (April-June)		
Week 14-15	Card final examination (Superior extremity)	
Week 16	Pre term leave	
Week 17-18	1 <sup>st</sup> term examination	
Week 19	Post term leave	
Abdomen		
Week 20	Day 1	● Lumbar vertebra
	Day 2	● Sacrum, Hip bone
	Day 3	● Anterior wall of the abdomen with hernia region, lumbar vertebra
	Day 4	● Anterior wall of the abdomen with hernia region, lumbar vertebra
	Day 5	● Review class
Week 21	Day 1	● Item exam + lumbar vertebra
	Day 2	● Stomach, abdominal part of the oesophagus
	Day 3	● Stomach, abdominal part of the oesophagus
	Day 4	● Review class
	Day 5	● Item exam
Week 22	Eid–Ul-Adha (25.05.26–01.06.26)	
Week 23	Day 1	● Item exam + lumbar vertebra
	Day 2	● Stomach, abdominal part of the oesophagus
	Day 3	● Stomach, abdominal part of the oesophagus
	Day 4	● Review class
	Day 5	● Item exam
Week 24	Day 1	● The mesentery & mesenteric vessels, jejunum & ileum, sacrum
	Day 2	● The mesentery & mesenteric vessels, jejunum & ileum, sacrum
	Day 3	● Review class
	Day 4	● Item exam + sacrum
	Day 5	● Large intestine, rectum & anal canal
Week 25	Day 1	● Large intestine, rectum & anal canal
	Day 2	● Large intestine, rectum & anal canal
	Day 3	● Review class
	Day 4	● Item exam
	Day 5	● Liver with the biliary apparatus including gallbladder, portal vein
Week 26	Day 1	● Liver with the biliary apparatus including gallbladder, portal vein
	Day 2	● Liver with the biliary apparatus including gallbladder, portal vein
	Day 3	● Review class
	Day 4	● Hip bone & bony pelvis

	Day 5	● Review class		
<b>3<sup>rd</sup> Quarter (July-September)</b>				
Week 27	Day 1	● Item exam		
	Day 2	● Kidney, suprarenal gland, ureter, urinary bladder & urethra		
	Day 3	● Kidney, suprarenal gland, ureter, urinary bladder & urethra		
	Day 4	● Kidney, suprarenal gland, ureter, urinary bladder & urethra		
	Day 5	● Review class		
Week 28	Day 1	● Item exam		
	Day 2	● Ovary, uterus, uterine tube, female external organs & perineum		
	Day 3	● Ovary, uterus, uterine tube, female external organs & perineum		
	Day 4	● Review class		
	Day 5	● Item exam		
Week 29	Day 1	● Vas deferens, seminal vesicle, prostate & male external genital organ		
	Day 2	● Vas deferens, seminal vesicle, prostate & male external genital organ		
	Day 3	● Review class		
	Day 4	● Item exam		
	Day 5	● Muscles, blood vessels, lymphatics and nerves of the posterior abdominal wall		
Week 30	Day 1	● Muscles, blood vessels, lymphatics and nerves of the pelvis + hip bone		
	Day 2	● Item exam + hip bone		
	Day 3	● Bony pelvis & joints, clinical anatomy		
	Day 4	● Review class		
	Day 5	● Preparatory class		
Week 31	<b>Card final examination (Abdomen)</b>			
<b>Inferior Extremity</b>				
Week 32	Day 1	● Hip bone		
	Day 2	● Femur		
	Day 3	● Tibia		
	Day 4	● Fibula		
	Day 5	● Patella		
Week 33	Day 1	● Skeleton of the foot		
	Day 2	● Front & medial aspect of the thigh		
	Day 3	● Front & medial aspect of the thigh + femur		
	Day 4	● Review class		
	Day 5	● Item exam+ femur		
Week 34	Day 1	● Gluteal region and back of the thigh		



	Day 2	● Gluteal region and back of the thigh + hip bone	
	Day 3	● Review class	
	Day 4	● Item exam + hip bone	
	Day 5	● Front of the leg & dorsum of the foot + tibia	
Week 35	Day 1	● Review class	
	Day 2	● Item exam + patella	
	Day 3	● Joints of the lower limb, fibula	
	Day 4	● Joints of the lower limb, fibula	
	Day 5	● Review class	
Week 36	Day 1	● Item exam + fibula	
	Day 2	● Arches of the foot + skeleton of foot	
	Day 3	● Arches of the foot + skeleton of foot	
	Day 4	● Review class	
	Day 5	● Item exam + skeleton of foot	
Week 37	Day 1	● Blood supply, lymphatic drainage, cutaneous innervations & dermatome of inferior extremity, clinical anatomy	
	Day 2	● Blood supply, lymphatic drainage, cutaneous innervations & dermatome of inferior extremity, clinical anatomy	
	Day 3	● Review class	
	Day 4	● Item exam + patella	
	Day 5	● Preparatory class	
Week 38	Card Final Examination (Inferior Extremity)		
Week 39	Pre term leave		
4 <sup>th</sup> Quarter (October-December)			
Week 40-41	2 <sup>nd</sup> Term Examination		
Week 42	Durga Puja (17.10.26–22.10.26)		
Week 43	Post term leave		
Head & Neck			
Week 44	Day 1	● Frontal bone + Parietal bone	
	Day 2	● Occipital bone + Temporal bone	
	Day 3	● Maxilla	
	Day 4	● Mandible	
	Day 5	● Sphenoid	
Week 45	Day 1	● Base of the skull	
	Day 2	● Scalp & temporal region +temporal bone	
	Day 3	● Review class	
	Day 4	● Item exam	
	Day 5	● Face & orbit + maxilla	
Week 46	Day 1	● Review class	
	Day 2	● Item exam	

	Day 3	<ul style="list-style-type: none"><li>Anterior triangle &amp; its subdivisions, submandibular region including thyroid gland + cervical vertebra</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Anterior triangle &amp; its subdivisions, submandibular region including thyroid gland + cervical vertebra</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Review class</li></ul>	
Week 47	Day 1	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Posterior triangle + frontal bone</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Mouth &amp; tongue + mandible</li></ul>	
Week 48	Day 1	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Pharynx + parietal bone</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 49-50	<b>Sports &amp; cultural week (02.12.26–11.12.26)</b>		
Week 51	Day 1	<ul style="list-style-type: none"><li>Nose &amp; paranasal air sinus + sphenoid bone</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Larynx + occipital bone</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Review class</li></ul>	
Week 52	Day 1	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Vertebral column &amp; deep dissection of the back of the neck + base of the skull</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>External, middle and internal ear</li></ul>	
<b>Next Year 1<sup>st</sup> Quarter (January-March)</b>			
Week 1	Day 1	<ul style="list-style-type: none"><li>External, middle and internal ear</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Review class</li></ul>	
	Day 3	<ul style="list-style-type: none"><li>Item exam</li></ul>	
	Day 4	<ul style="list-style-type: none"><li>Bones &amp; joints of the head &amp; neck, clinical anatomy</li></ul>	
	Day 5	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 2	<b>Card final examination (Head &amp; Neck)</b>		
<b>Central Nervous System &amp; Eyeball</b>			
Week 3	Day 1	<ul style="list-style-type: none"><li>Introduction to the nervous system, cranial cavity &amp; orbit, Base of the skull</li></ul>	
	Day 2	<ul style="list-style-type: none"><li>Introduction to the nervous system, cranial cavity &amp; orbit, Base of the skull</li></ul>	

	Day 3	● Introduction to the nervous system, cranial cavity & orbit, Base of the skull
	Day 4	● Review class
	Day 5	● Item exam
Week 4	Day 1	● General examination of the brain
	Day 2	● Superficial attachments of cranial nerves
	Day 3	● Review class
	Day 4	● Item exam
	Day 5	● Cerebrum: Lobes of cerebrum, sulci, gyri & important functional areas, blood supply, formation of circle of Willis
Week 5	Day 1	● Cerebrum: Lobes of cerebrum, sulci, gyri & important functional areas, blood supply, formation of circle of Willis
	Day 2	● Review class
	Day 3	● Item exam
	Day 4	● Diencephalon: Thalamus, hypo-Thalamus, metathalamus, epithalamus & pituitary gland
	Day 5	● Review class
Week 6	Day 1	● Item exam
	Day 2	● Basal nuclei, internal capsule, extrapyramidal system & limbic system
	Day 3	● Item exam
	Day 4	● Meninges of the brain
	Day 5	● Ventricles and cerebrospinal fluid, spinal cord & spinal nerves
Week 7	Day 1	● Item exam
	Day 2	● Brain stem & reticular formation
	Day 3	● Review class
	Day 4	● Item exam
	Day 5	● Cranial nerves & clinical anatomy
Week 8	Day 1	● Review class
	Day 2	● Item exam
	Day 3	● Eyeball
	Day 4	● Review class
	Day 5	● Item exam
Week 9	Card final examination (Central Nervous System & Eyeball)	
Week 10	Pre term leave	
Week 11	Eid-UI-Fitr	
Week 12-13	3 <sup>rd</sup> Term Examination	
Next Year 2 <sup>nd</sup> Quarter (April-June)		
Week 14-17	Preparatory Leave	
Week 18-26	1 <sup>st</sup> Professional Examination & Result	

## Histology Class Schedule

Time frame	Topics	Teaching hours
1 <sup>st</sup> Quarter (January-March)		
Card 1		
Week 1	<ul style="list-style-type: none"><li>Microscope: Parts and how to handle, Principle of different types of microscopy, Principle of tissue preparation and staining</li></ul>	<b>Teachers</b> Curator / Lecturer / Medical officer <b>Teaching hours</b> 1 day/week (2 hours)
Week 2	<ul style="list-style-type: none"><li>Fixation, embedding, sectioning &amp; routine staining</li></ul>	
Week 3	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 4	<ul style="list-style-type: none"><li>Epithelium: simple squamous, cuboidal, columnar, pseudostratified squamous, cuboidal, stratified columnar &amp; transitional</li></ul>	
Week 5	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 6-7	Card final examination (Thorax)	
Week 8	<ul style="list-style-type: none"><li>Connective tissue: general, special, bone &amp; cartilage</li></ul>	
Week 9	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 10	<ul style="list-style-type: none"><li>Muscular tissue: smooth, skeletal and cardiac muscle</li></ul>	
Week 11	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 12	Eid-Ul-Fitr (18.03.26-25.03.26)	
Week 13	<ul style="list-style-type: none"><li>Nervous tissue in general</li></ul>	
2 <sup>nd</sup> Quarter (April-June)		
Week 14-15	Card final examination (Superior extremity)	
Week 16	Pre term leave	
Week 17-18	1 <sup>st</sup> Term Examination	
Week 19	Post term leave	
Card 2		
Week 20	<ul style="list-style-type: none"><li>Respiratory system: Larynx, Trachea, bronchial tree &amp; lung</li></ul>	
Week 21	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 22	Eid-Ul-Adha (25.05.26-01.06.26)	
Week 23	<ul style="list-style-type: none"><li>Large artery, medium sized artery, large vein</li></ul>	
Week 24	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 25	<ul style="list-style-type: none"><li>Digestive system: Tongue, pharynx, oesophagus, stomach, small intestine &amp; large intestine, vermiform appendix</li></ul>	

Week 26	<ul style="list-style-type: none"><li>Item exam</li></ul>	
<b>3<sup>rd</sup> Quarter (July-September)</b>		
Week 27	<ul style="list-style-type: none"><li>Liver, gallbladder &amp; pancreas</li></ul>	
Week 28	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 29	<ul style="list-style-type: none"><li>Urinary system: Kidney, ureter, urinary bladder &amp; urethra</li></ul>	
Week 30	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 31	<b>Card final examination (Abdomen)</b>	
Week 32	<ul style="list-style-type: none"><li>Male reproductive system &amp; associated glands: testis, epididymis, vas deferens, seminal vesicle &amp; prostate</li></ul>	
Week 33	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 34	<ul style="list-style-type: none"><li>Female reproductive system &amp; associated glands: ovary, fallopian tube, uterus &amp; vagina</li></ul>	
Week 35	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 36	<ul style="list-style-type: none"><li>Mammary gland, placenta</li></ul>	
Week 37	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 38	<b>Card final examination (Inferior Extremity)</b>	
Week 39	<b>Pre term leave</b>	
<b>4<sup>th</sup> Quarter (October-December)</b>		
<b>Week 40-41</b>	<b>2<sup>nd</sup> Term Examination</b>	
<b>Week 42</b>	<b>Durga Puja (17.10.26–22.10.26)</b>	
Week 43	<b>Post term leave</b>	
<b>Card 3</b>		
Week 44	<ul style="list-style-type: none"><li>Lymphatic system: Lymph node, tonsil, spleen &amp; thymus</li></ul>	
Week 45	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 46	<ul style="list-style-type: none"><li>Exocrine glands: Salivary glands</li></ul>	
Week 47	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 48	<ul style="list-style-type: none"><li>Nervous system: Spinal cerebrum, cerebellum, peripheral nerve including optic nerve</li></ul>	
<b>Week 49-50</b>	<b>Sports &amp; cultural week (02.12.26-11.12.26)</b>	
Week 51	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 52	<ul style="list-style-type: none"><li>Endocrine glands: Pituitary, thyroid, parathyroid, adrenal &amp; islets of Langerhans</li></ul>	
<b>Next Year 1<sup>st</sup> Quarter (January-March)</b>		
Week 1	<ul style="list-style-type: none"><li>Item exam</li></ul>	
Week 2	<b>Card final examination (Head &amp; Neck)</b>	
Week 3	<ul style="list-style-type: none"><li>Special sense organs: Eyeball (cornea, retina), internal ear</li></ul>	
Week 4	<ul style="list-style-type: none"><li>Item exam</li></ul>	

Week 5	● Thick and thin skin	
Week 6	● Item exam	
Week 7	● Preparatory class	
Week 8	● Preparatory class	
Week 9	Card final examination (Central Nervous System & Eyeball)	
Week 10	Pre term leave	
Week 11	Eid-UI-Fitr	
Week 12-13	3 <sup>rd</sup> Term Examination	
Next Year 2 <sup>nd</sup> Quarter (April-June)		
Week 14-17	Preparatory Leave	
Week 18-26	1 <sup>st</sup> Professional Examination & Result	

# Physiology

## ❖ Lecture

Time frame	Topics	Teaching hours
<b>1<sup>st</sup> Quarter (January- March)</b>		
Week 1	<ul style="list-style-type: none"> <li>Physiology: Def, goal, importance.</li> <li>Homeostasis</li> <li>The cell</li> </ul>	<ul style="list-style-type: none"> <li>Saturday 9 to 10 am</li> <li>Monday 8 to 9 am</li> <li>Tuesday 9 to 10 am</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>The cell membrane transport</li> </ul>	
Week 3	<ul style="list-style-type: none"> <li>Membrane potential.</li> <li>Neuromuscular junction</li> <li>Muscle contraction &amp; relaxation</li> <li>Feedback class</li> </ul>	
Week 4	<ul style="list-style-type: none"> <li>Composition &amp; functions of blood, Plasma proteins</li> <li>RBC</li> </ul>	
Week 5	<ul style="list-style-type: none"> <li>Hemoglobin, Red blood cell indices, Anaemia, Jaundice,</li> <li>WBC</li> </ul>	
Week 6	<ul style="list-style-type: none"> <li>Platelets, Hemostasis.</li> <li>Coagulation.</li> <li>Clotting factors &amp; fibrinolysis.</li> <li>Bleeding disorder.</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>Blood grouping, Hazards of blood transfusion</li> <li>Feedback class</li> </ul>	
Week 8	<b>Card Final Examination (Cellular Physiology, Physiology of Blood)</b>	
Week 9	<ul style="list-style-type: none"> <li>Properties of cardiac muscle, Junctional tissues of the heart.</li> <li>Cardiac cycle</li> </ul>	
Week 10	<ul style="list-style-type: none"> <li>Heart sounds</li> <li>ECG</li> <li>Heart block</li> <li>Functional classification of blood vessels &amp; microcirculation, interrelationship among pressure, flow &amp; resistance.</li> <li>Local &amp; humoral control of blood flow in the tissues.</li> <li>Exchange of fluid through the capillary membrane.</li> </ul>	
Week 11	<ul style="list-style-type: none"> <li>Stroke volume, End diastolic volume, End systolic volume, EF</li> <li>Cardiac output, Venous return, Pulse</li> </ul>	
Week 12	<b>Eid-UI-Fitr (18.03.26-25.03.26)</b>	
Week 13	<ul style="list-style-type: none"> <li>Peripheral resistance</li> </ul>	



	<ul style="list-style-type: none"> <li>• Blood pressure</li> </ul>	
<b>2<sup>nd</sup> Quarter (April- June)</b>		
Week 14	<ul style="list-style-type: none"> <li>• Circulatory adjustment during muscular exercise</li> <li>• Heart rate, Cardiac arrhythmias</li> <li>• Shock</li> <li>• Feedback class</li> </ul>	
<b>Week 15</b>	<b>Card Final Examination (Cardiovascular Physiology)</b>	
Week 16	<b>Pre term leave</b>	
<b>Week 17-18</b>	<b>1<sup>st</sup> Term Examination</b>	
Week 19	<b>Post term leave</b>	
Week 20	<ul style="list-style-type: none"> <li>• Respiration <ul style="list-style-type: none"> <li>➤ Pulmonary &amp; Alveolar ventilation</li> </ul> </li> <li>• Pulmonary volumes and capacities (spirometry)</li> <li>• Dead space</li> <li>• Lung function tests</li> </ul>	
Week 21	<ul style="list-style-type: none"> <li>• Composition of atmospheric, alveolar, inspired and expired air.</li> <li>• Respiratory unit and respiratory membrane.</li> <li>• Diffusion of Gases through the respiratory membrane.</li> <li>• Peculiarities of pulmonary circulation, Ventilation-perfusion ratio.</li> <li>• Transport of Oxygen &amp; Carbon dioxide in blood, Oxy-hemoglobin dissociation curve.</li> <li>• Bohr effect, Haldane effect &amp; Chloride shift</li> </ul>	
<b>Week 22</b>	<b>Eid–Ul-Adha (25.05.26–01.06.26)</b>	
Week 23	<ul style="list-style-type: none"> <li>• Respiratory centers</li> <li>• Nervous &amp; chemical regulation of respiration, Regulation of respiration during exercise.</li> <li>• Hypoxia, Cyanosis, Dyspnoea, Hypercapnia &amp; Periodic breathing.</li> <li>• Feedback class</li> </ul>	
Week 24	<b>Card Final Examination (Respiratory system)</b>	
Week 25	<ul style="list-style-type: none"> <li>• Physiological anatomy of gastrointestinal (GI) tract. <ul style="list-style-type: none"> <li>➤ Enteric nervous system.</li> <li>➤ Local hormones of GIT</li> </ul> </li> <li>• Hormonal control of GI function</li> </ul>	
Week 26	<ul style="list-style-type: none"> <li>• Movements of the GIT.</li> <li>• GI reflexes.</li> <li>• Function of stomach, small intestine and large intestine.</li> </ul>	

<b>3<sup>rd</sup> Quarter (July-September)</b>		
Week 27	<ul style="list-style-type: none"> <li>• Kidney: functions of kidneys, Nephron</li> <li>• Renal circulation: peculiarities with functional importance.</li> <li>• Urine formation</li> <li>• GFR: Glomerular filtration, determinants of GFR, Autoregulation of renal blood flow and GFR</li> </ul>	
Week 28	<ul style="list-style-type: none"> <li>• Reabsorption and secretion by the renal tubules</li> <li>• T<sub>m</sub>, Renal threshold, tubular load &amp; plasma load, plasma clearance and diuresis.</li> </ul>	
Week 29	<ul style="list-style-type: none"> <li>• Mechanism of formation of concentrated &amp; dilute urine.</li> <li>• Micturition reflex, Abnormalities of micturition</li> <li>• Feedback class</li> </ul>	
<b>Week 30</b>	<b>Card Final Examination (GIT &amp; Renal Physiology)</b>	
Week 31	<ul style="list-style-type: none"> <li>• Endocrine glands: Hormones</li> <li>• Hypothalamic hormones.</li> <li>• Pituitary hormones (anterior &amp; posterior)</li> <li>• Disorders (Dwarfism, gigantism, acromegaly &amp; hypopituitarism and diabetes insipidus)</li> </ul>	
Week 32	<ul style="list-style-type: none"> <li>• Thyroid gland</li> <li>• Thyroid hormones</li> <li>• Disorders (Hypothyroidism, hyperthyroidism, Cretinism, Myxoedema and goitre).</li> <li>• Parathyroid gland</li> <li>• Parathyroid hormone</li> </ul>	
Week 33	<ul style="list-style-type: none"> <li>• Adrenal Gland</li> <li>• Adrenocortical hormones</li> <li>• Disorders (Addison's disease, Cushing's Syndrome, Conn's disease).</li> </ul>	
Week 34	<ul style="list-style-type: none"> <li>• Hormones of Islets of Langerhans of pancreas: functions, mechanism of action, regulation of secretion &amp; disorders</li> </ul>	
Week 35	<ul style="list-style-type: none"> <li>• Introduction to reproductive physiology</li> <li>• Functional anatomy of male reproductive system.</li> <li>• Secondary sex characteristics of male, Testes, Testosterone</li> <li>• Spermatogenesis</li> <li>• Functional anatomy of female reproductive system.</li> <li>• Secondary sex characteristics of female, Ovaries.</li> </ul>	
Week 36	<ul style="list-style-type: none"> <li>• Menstrual cycle, Ovarian cycle, Ovulation.</li> <li>• Menstruation, menarche &amp; menopause.</li> <li>• Ovarian hormones, Functions of oestrogen and progesterone</li> </ul>	

Week 37	<ul style="list-style-type: none"> <li>• Physiology of pregnancy &amp; Lactation:</li> <li>• Placental hormones</li> <li>• Mammogenesis</li> </ul>	
Week 38	Feedback class	
Week 39	<b>Pre term leave</b>	
<b>4<sup>th</sup> Quarter (October-December)</b>		
<b>Week 40-41</b>	<b>2<sup>nd</sup> Term Examination</b>	
<b>Week 42</b>	<b>Durga Puja (17.10.26–22.10.26)</b>	
Week 43	<b>Post term leave</b>	
<b>Week 44</b>	<b>Card Final Examination (Endocrine &amp; Reproductive Physiology)</b>	
Week 45	<ul style="list-style-type: none"> <li>• Functional organization of nervous system and functions of major levels of central nervous system (CNS).</li> <li>• Neuron,</li> <li>• Nerve fiber,</li> <li>• Synapse,</li> <li>• Neurotransmitters.</li> </ul>	
Week 46	<ul style="list-style-type: none"> <li>• Sensory systems of the body: Sensory receptor, General/somatic senses</li> <li>• Cerebral cortex: Brodmann's areas.</li> <li>• Ascending tracts/sensory pathways</li> <li>• Tract of Gall &amp; Burdach, spinothalamic tract, spinocerebellar tract</li> <li>• Effect of lesions of these tracts</li> </ul>	
Week 47	<ul style="list-style-type: none"> <li>• Reflex, Reflex arc, stretch reflex, knee jerk, plantar response and Withdrawal reflex, reciprocal innervations &amp; crossed extensor-pathway.</li> <li>• Muscle spindle, Golgi tendon organ, Muscle tone.</li> </ul>	
Week 48	<ul style="list-style-type: none"> <li>• Descending tracts/ motor pathways: Pyramidal tract, Extrapyrmidal tract.</li> <li>• Upper motor neuron and lower motor neuron</li> <li>• Spinal cord: effect of hemi-section.</li> </ul>	
<b>Week 49-50</b>	<b>Sports &amp; cultural week (02.12.26–11.12.26)</b>	
Week 51	<ul style="list-style-type: none"> <li>• Cerebellum</li> <li>• Basal ganglia</li> <li>• Thalamus, Reticular formation, Limbic system.</li> </ul>	
Week 52	<ul style="list-style-type: none"> <li>• Hypothalamus</li> <li>• Body Temperature, sources of heat gain, channels of heat loss, regulation of body temperature in hot and cold environment.</li> <li>• Autonomic Nervous system</li> <li>• Alarm or stress response</li> </ul>	

Next Year 1 <sup>st</sup> Quarter (January-March)		
Week 1	<ul style="list-style-type: none"><li>• Vision: physiological anatomy of eye, image formation in the eyes, visual receptors, visual pathway, common refractive errors, accommodation reaction, light reflex, dark and light adaptation. Field of vision, color vision, visual acuity</li></ul>	
Week 2	<ul style="list-style-type: none"><li>• Hearing: auditory apparatus, receptor, Mechanism of hearing, mechanism of sound transmission and auditory pathway.</li><li>• Smell: receptor and pathway.</li><li>• Taste: receptors, modalities of taste sensation and pathway.</li></ul>	
Week 3	<b>Card Final Examination (Neurophysiology, Physiology of Body Temperature and Special Senses)</b>	
Week 4-9	Feedback class	
Week 10	<b>Pre term leave</b>	
Week 11	<b>Eid-UI-Fitr</b>	
Week 12-13	<b>3<sup>rd</sup> Term Examination</b>	
Next Year 2 <sup>nd</sup> Quarter (April-June)		
Week 14-17	<b>Preparatory leave</b>	
Week 18-26	<b>1<sup>st</sup> Professional Examination &amp; Result</b>	

❖ **Small group teaching**

<b>Component</b>	<b>Schedule</b>	<b>Group</b>	<b>Teaching Hours</b>
Tutorial/Practical/Demonstration	Saturday	B, D	10.30 am to 12.30 pm
	Sunday	A, C	
	Wednesday	A, C	
	Monday	B, D	12.30 pm to 2.30 pm
	Tuesday	A, C	
	Thursday	B, D	

# Biochemistry

## ❖ Lecture

Time frame	Topics	Teaching hours
<b>1<sup>st</sup> Quarter (January-March)</b>		
Week 1	<b>Card-1: Biophysics &amp; Biomolecules</b> <ul style="list-style-type: none"> <li>Biochemistry and its importance in medicine.</li> <li>Solution, standard solution, ways of expressing concentration of a solution.</li> <li>Colloid and crystalloid with example, dialysis and its biomedical importance.</li> </ul>	<ul style="list-style-type: none"> <li>Sunday 9 to 10 am</li> <li>Wednesday 9 to 10 am</li> <li>Thursday 8 to 9 am</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>pH, pK and pH scale and mention their importance.</li> <li>Acid, base, strong acid and weak acid.</li> <li>Body fluid buffers with their basic mechanism of action.</li> <li>Henderson Hasselbalch equation and its importance.</li> <li>Isotope classification, biomedical importance.</li> </ul>	
Week 3	<ul style="list-style-type: none"> <li><b>Carbohydrates:</b> definition, chemical structure, properties, Classification</li> <li>Biological importance of monosaccharides, disaccharides and polysaccharides.</li> </ul>	
Week 4	<ul style="list-style-type: none"> <li><b>Amino acid:</b> definition, chemical structure, properties, Classification of peptide, polypeptide</li> <li><b>Protein:</b> structure and denaturation of protein, sources, function, biological importance</li> </ul>	
Week 5	<ul style="list-style-type: none"> <li><b>Fatty acids:</b> definition, chemical structure, properties, Classification sources, function and biomedical importance</li> <li><b>Eicosanoids:</b> synthesis, biomedical importance,</li> <li><b>Essential fatty acids:</b> omega-3 fatty acid, omega-6 fatty acid and trans-fatty acid.</li> <li><b>Steroids and sterols:</b> Chemical structure, properties, sources, a biomedical importance of cholesterol.</li> </ul>	
Week 6	<ul style="list-style-type: none"> <li><b>Enzymes:</b> Definition, properties, classification</li> <li>Factors affecting enzyme activity</li> <li>Isoenzyme, coenzyme and cofactor</li> <li><b>Clinical enzymology.</b></li> </ul>	
Week 7	<b>Card Final Examination (Biophysics &amp; Biomolecules)</b>	
Week 8	<b>Card-2: Food, nutrition and vitamins</b> <ul style="list-style-type: none"> <li>Nutrients: essential nutrients, macro and micronutrients, food, proximate principles of food, diet, balanced diet.</li> <li>Nutritional aspect of carbohydrates, fats and proteins, dietary fibers.</li> </ul>	
Week 9	<ul style="list-style-type: none"> <li>BMR, BMI, SDA.</li> </ul>	

	<ul style="list-style-type: none"> <li>• Basis of calculating the calorie requirement of a person.</li> <li>• Dietary Fibre, glycaemic index (GI) with its importance.</li> </ul>	
Week 10	<ul style="list-style-type: none"> <li>• <b>Vitamins:</b> Sources, functions, RDA, deficiency disorders and toxicity of <b>fat-soluble vitamins</b>.</li> <li>• Sources, function, RDA, deficiency disorders of <b>water-soluble vitamins</b>.</li> </ul>	
Week 11	<ul style="list-style-type: none"> <li>• <b>Minerals:</b> Classification, importance sodium, potassium, calcium,</li> <li>• <b>Trace elements:</b> Iodine, fluoride, selenium, manganese, copper, zinc etc.</li> <li>• <b>Iron metabolism</b></li> </ul>	
Week 12	<b>Eid-UI-Fitr (18.03.26-25.03.26)</b>	
Week 13	<ul style="list-style-type: none"> <li>• <b>Common nutritional disorders</b> e.g., PEM, night blindness, goiter, obesity, nutritional anaemia.</li> </ul>	
<b>2<sup>nd</sup> Quarter (April-June)</b>		
Week 14	Review class	
Week 15	<b>Card Final Examination: Card 2 (Food, nutrition and vitamins)</b>	
Week 16	<b>Pre term leave</b>	
Week 17-18	<b>1<sup>st</sup> Term Examination</b>	
Week 19	<b>Post term leave</b>	
Week 20	<b>Card-3: Digestion, Absorption, Bioenergetics and Metabolism</b> <ul style="list-style-type: none"> <li>• Digestion, absorption: digestion and absorption of carbohydrate, lipids and protein metabolism, anabolism, and catabolism.</li> <li>• Phases of metabolism</li> </ul>	
Week 21	<ul style="list-style-type: none"> <li>• Biological oxidation, respiratory chain and oxidative phosphorylation, ATP</li> <li>• High and low energy compounds</li> </ul>	
Week 22	<b>Eid-UI-Adha (25.05.26–01.06.26)</b>	
Week 23	<ul style="list-style-type: none"> <li>• Carbohydrate metabolism</li> <li>• Glycolysis; aerobic and in anaerobic conditions</li> <li>• <b>Citric acid cycle:</b> common metabolic pathway.</li> </ul>	
Week 24	<ul style="list-style-type: none"> <li>• Glycogenesis and glycogenolysis</li> <li>• Hexose monophosphate shunt</li> <li>• Gluconeogenesis, Cori cycle</li> <li>• Blood glucose homeostasis</li> </ul>	
Week 25	<b>Lipid Metabolism</b> <ul style="list-style-type: none"> <li>• Blood lipids with their sources</li> <li>• Anabolic and catabolic pathways of lipid metabolism.</li> <li>• Metabolism of triacylglycerol.</li> </ul>	



	<ul style="list-style-type: none"> <li>Metabolism of fatty acids.</li> <li>Ketone bodies: ketogenesis and fate of ketone bodies, the biomedical importance of ketone bodies, ketosis</li> </ul>	
Week 26	<ul style="list-style-type: none"> <li><b>Metabolism of Lipoproteins:</b> Chylomicron, VLDL, LDL &amp; HDL</li> <li>LDL &amp; HDL cholesterol.</li> </ul>	
<b>3<sup>rd</sup> Quarter (July-September)</b>		
Week 27	<b>Protein metabolism</b> <ul style="list-style-type: none"> <li>Concept of protein turnover, amino acid pool</li> <li>Nitrogen balance, its types and the routes of nitrogen loss.</li> <li>Pathways of amino acid catabolism.</li> </ul>	
Week 28	<ul style="list-style-type: none"> <li>Transamination and deamination.</li> <li>Sources and way of disposal of ammonia, ammonia intoxication</li> <li>Urea cycle</li> </ul>	
Week 29	Review class	
Week 30	<b>Card Final Examination (Digestion, Absorption, Bioenergetics and Metabolism)</b>	
Week 31	<b>Card-4: Body fluids, electrolytes and acid base balance</b> <ul style="list-style-type: none"> <li>Renal biochemistry, GFR, renal threshold, plasma clearance, osmolar clearance and free water clearance, Mechanism of acidification of urine.</li> </ul>	
Week 32	<ul style="list-style-type: none"> <li>Body fluid compartments and water distribution</li> <li>Composition of ECF and ICF</li> <li>Water turnover, water intoxication.</li> <li>Water homeostasis</li> </ul>	
Week 33	Volume disorders with example <ul style="list-style-type: none"> <li>Diuresis: Type</li> </ul>	
Week 34	Electrolytes ( $\text{Na}^+$ , $\text{K}^+$ , $\text{Ca}^{++}$ , $\text{Mg}^{++}$ and $\text{PO}_4^{--}$ ) <ul style="list-style-type: none"> <li>Mechanism of their homeostasis.</li> </ul>	
Week 35	<ul style="list-style-type: none"> <li>Acid base homeostasis with compensation and correction</li> </ul>	
Week 36-37	Review Class	
Week 38	<b>Card Final Examination: Body fluids, electrolytes and acid base balance</b>	
Week 39	Pre term leave	
<b>4<sup>th</sup> Quarter (October-December)</b>		
Week 40-41	<b>2<sup>nd</sup> Term Examination</b>	
Week 42	<b>Durga Puja (17.10.26–22.10.26)</b>	
Week 43	Post term leave	
Week 44	<b>Card-5: Clinical Biochemistry and clinical endocrinology</b>	

	<ul style="list-style-type: none"> <li>● Introduction to clinical biochemistry, Normal biochemical values in conventional and SI Units.</li> <li>● The laboratory hazards with its types and specimens used in the laboratory.</li> <li>● Common anticoagulants used in laboratory</li> </ul>	
Week 45	<ul style="list-style-type: none"> <li>● Clinical enzymology related to liver and myocardial diseases.</li> <li>● Lipid profiles of blood &amp; their clinical importance.</li> <li>● Dyslipoproteinemias</li> </ul>	
Week 46	<ul style="list-style-type: none"> <li>● Organ function tests - Common liver function tests,</li> <li>● Bilirubin metabolism</li> <li>● Mechanism of causation of jaundice.</li> </ul>	
Week 47	<ul style="list-style-type: none"> <li>● Laboratory diagnosis of diabetes mellitus, OGTT and its interpretation IFG, IGT and HbA1c.</li> </ul>	
Week 48	<ul style="list-style-type: none"> <li>● Renal function tests</li> <li>● Proteinuria and microalbuminuria, Glycosuria</li> </ul>	
<b>Week 49-50</b>	<b>Sports &amp; cultural week (02.12.26-11.12.26)</b>	
Week 51	<ul style="list-style-type: none"> <li>● Thyroid function tests with interpretation</li> </ul>	
<b>Week 52</b>	<b>Card Final Examination (Clinical Biochemistry and Clinical endocrinology)</b>	
<b>Next Year 1<sup>st</sup> Quarter (January-March)</b>		
Week 1	<b>Card-6: Fundamentals of Molecular Biology and genetics</b> <ul style="list-style-type: none"> <li>● Chemistry, &amp; functions of Nucleic acid, Nucleosides, and Nucleotides,</li> <li>● DNA Structure and DNA organization</li> </ul>	
Week 2	<ul style="list-style-type: none"> <li>● Central dogma, Cell cycle</li> <li>● Replication of DNA</li> </ul>	
Week 3	<ul style="list-style-type: none"> <li>● RNA type, Genetic code, gene, allele, genome, genotype, phenotype, trait, and codon, mutations, mutagens</li> </ul>	
Week 4	<ul style="list-style-type: none"> <li>● Transcription and post transcriptional modification.</li> </ul>	
Week 5	<ul style="list-style-type: none"> <li>● Translation and post translational modification</li> </ul>	
Week 6	<ul style="list-style-type: none"> <li>● Medical Biotechnology</li> <li>● Recombinant DNA technology: Concept and applications</li> </ul>	
Week 7	<ul style="list-style-type: none"> <li>● Concept of DNA cloning, PCR, DNA fingerprinting</li> </ul>	
<b>Week 8</b>	<b>Card Final Examination (Fundamentals of Molecular Biology and genetics)</b>	
Week 9	Review Class	
Week 10	<b>Pre term leave</b>	
<b>Week 11</b>	<b>Eid-UI-Fitr</b>	
<b>Week 12-13</b>	<b>3<sup>rd</sup> Term Examination</b>	

<b>Next Year 2<sup>nd</sup> Quarter (April-June)</b>		
Week 14-17	<b>Preparatory leave</b>	
<b>Week 18-26</b>	<b>1<sup>st</sup> Professional Examination &amp; Result</b>	

❖ **Small group teaching**

Component	Schedule	Group	Teaching Hours
<b>Tutorial/Practical/Demonstration</b>	Saturday	A, C	10.30 am to 12.30 pm
	Sunday	B, D	
	Wednesday	B, D	
	Monday	A, C	12.30 pm to 2.30 pm
	Tuesday	B, D	
	Thursday	A, C	

❖ **Generic Topics**

Date	Topic	Time
1 <sup>st</sup> month	Behavioral science	<ul style="list-style-type: none"> <li>• Duration- 1.5 hours</li> <li>• Date will be determined by phase committee</li> </ul>
2 <sup>nd</sup> month	Medical Sociology	
3 <sup>rd</sup> month	Etiquette in using of Social Medias	
4 <sup>th</sup> month	Self- directed learning including team learning	
5 <sup>th</sup> month	Medical ethics	

### ❖ Integrated Teaching

Date	Topic	Subject	Time
1 <sup>st</sup> month	Coronary artery disease	Anatomy	Saturday 9 am to 11 am
2 <sup>nd</sup> month	Chronic obstructive pulmonary disease	Physiology	
3 <sup>rd</sup> month	Diarrhea	Biochemistry	
4 <sup>th</sup> month	Anaemia	Physiology	
5 <sup>th</sup> month	Diabetes mellitus	Biochemistry	
6 <sup>th</sup> month	Jaundice	Physiology	
7 <sup>th</sup> month	Electrolyte imbalance	Biochemistry	
8 <sup>th</sup> month	Deafness	Physiology	
9 <sup>th</sup> month	Proteinuria	Biochemistry	
10 <sup>th</sup> month	Error of refraction	Physiology	
11 <sup>th</sup> month	Thyroid disorder	Biochemistry	
12 <sup>th</sup> month	Cerebrovascular disease	Anatomy	