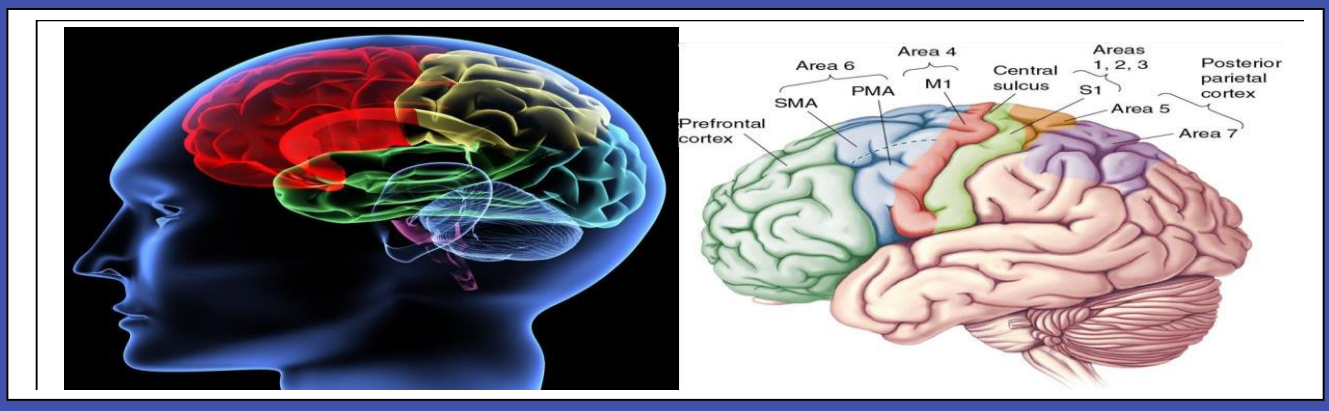
SWAT MEDICAL COLLEGE
SWAT

DEPARTMENT OF MEDICAL EDUCATION

NEUROSCIENCE IB



2ND YEAR MBBS

BLOCK: D

CLASS OF 2027

DURATION: 06 WEEK

FROM: MARCH 18 TO MAY 03, 2024

STUDENT NAME

Contents

Acaedemic Calendar

Tentative Annual Calendar MBBS – 2023-24
Swat Medical College, Swat

Activity/ Events	Week	Date	1st Year	2nd Year	3rd Year	4th Year	5th Year
Orientation Week	1	12th to 16th Feb	Foundation-I (6 weeks) 22nd March, Module Exam	Neurosciences-IA (6 weeks) 22nd March, Module Exam	Foundation II (5 weeks) 22nd March, Module Exam	Neurosciences – II (6 weeks) 25th and 26th March Block J Exam	*Previous 5th Year Preparatory leaves and annual exam*
Regular Classes	2	19th to 23rd Feb					
Regular Classes	3	26th Feb to 1st March					
Regular Classes	4	4th to 8th March					
Regular Classes	5	11th to 15th March					Foundation-III (2 weeks) 22nd March Module Exam
Regular Classes	6	18th to 22nd March			Infection & Inflammation (6 weeks) 6th May to 7th May Block G exam		
Regular Classes	7	25th to 29th March	Blood & Immunology (5 weeks) 6th & 7th May Block A exam	Neurosciences-IB (5 weeks) 13th & 14th May Block D		GIT and Hepatobiliary – II (9 weeks) 10th and 11th June Block K Exam	Blood & Immunology-III (2 weeks) 5th April Module Exam
Regular Classes	8	1st to 5th April					
Spring Break/Eid ul Fitr	9	8th to 12th April					MSK-III (2 weeks) 06th & 07th May Block N exam
Sports Week	10	15th to 19th April					
Regular Classes	11	22nd to 26th April					
Regular Classes	12	29th to 3rd May			Multisystem (5 weeks) Module Exam 31st May		Cardiorespiratory-III (5 weeks) 3rd & 4th June Block O Exam
Regular Classes	13	6th to 10th May	MSK-I (8 weeks) 1st & 2nd July Block-B Exam	GIT, Hepatobiliary & Metabolism- (8 weeks) 1st & 2nd July			
Regular Classes	14	13th to 17th May					Renal- III Module (2 weeks) 14th June Module Exam
Regular Classes	15	20th to 24th May					
Regular Classes	16	27th May to 31st May			Blood & immunology (3 weeks) 1st & 2nd July module exam	Renal – II Module (4 weeks) 1st and 2nd July Module Exam	
Regular Classes	17	3rd to 7th June					Endocrine & Reproduction-III (3 weeks) 29th & 30th July Block P Exam
Regular Classes	18	10th to 14th June					
Eid-ul-Adha Holidays	19	17th to 21th June					
Regular Classes	20	24th to 28th June					Neurosciences – III (3 weeks) 16th August Module Exam
Summer Vacations	21-23	3rd to 21st July					
Regular Classes	24	22nd to 26th July	CVS-I (5 weeks) 23rd August Module Exam	Renal (3 weeks) 12th to 13th August Block E	MSK-II (5 weeks) 2nd Sep 3rd Sep Block H exam	Endocrine and Reproduction – II (8 weeks) 16th and 17th September Block-L exam	
Regular Classes	25	29th July to 2nd Aug					GIT & Hepatobiliary (2 weeks) 6th Sep Module Exam
Regular Classes	26	5th to 9th Aug		Endocrine-I (4 weeks) 6th Sep			
Regular Classes	27	12th to 16th Aug					
Regular Classes	28	19th 23rd Aug			CVS-II (3 weeks) 20th September Module exam		Multisystem-II (4 weeks) 7th -8th Oct Block Q exam
Regular Classes	29	26th to 30th Aug	Respiratory-I (4 weeks) 23rd -24th SEP Block-C Exam	Reproduction-I (4 weeks) 30th Sep 1st Oct			
Regular Classes	30	2nd to 6th Sep			RES-II (4 weeks) 21st and 22nd October Block L exam	EYE and ENT (5 weeks) 14th to 18th Oct Block M1 & M2 Exam	
Regular Classes	31	9th to 13th Sep					
Regular Classes	32	16th to 20th Sep					
Regular Classes/ Preparatory Leaves	33	23rd to 27th Sep					
Regular Classes/ Preparatory Leaves	34	30th Sep to 4th Oct	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES
Regular Classes/ Preparatory Leaves	35	7th to 11th Oct					
Regular Classes/ Preparatory Leaves	36	14th to 18th Oct					
Regular Classes/ Preparatory Leaves	37	21st to 25th Oct					
Regular Classes/ Preparatory Leaves	38	28th Oct to 1st Nov					
Regular Classes/ Preparatory Leaves	39	4th to 8th Nov					
Regular Classes/ Preparatory Leaves	40	11th to 15th Nov	Annual Exam as per KMU schedule.	Annual Exam as per KMU			
Regular Classes/ Preparatory Leaves	41	18th to 22nd Nov					
Regular Classes/ Preparatory Leaves	42	25th to 29th Nov					
Regular Classes/ Preparatory Leaves	42	2nd to 6th Dec					
Regular Classes/ Preparatory Leaves	43	9th to 13th Dec					
Regular Classes/ Preparatory Leaves	44	16th to 20th Dec					
Regular Classes/ Preparatory Leaves	45	23rd to 27th Dec	Winter vacation	Winter vacation	Annual Exam as per KMU schedule.	------	
Regular Classes/ Preparatory Leaves	46-49	November 2024					
Regular Classes/ Preparatory Leaves	50-53	December 2024					
Regular Classes/ Preparatory Leaves	54-57	January 2025			Winter vacation	Annual Exam as per KMU schedule.	
Start of new academic session 2025-26			February 2025	February 2025	February 2025	February 2025	March 2025

Note: The given dates are tentative and may be subject to change as needed/demanded. The KMU will share the annual exam schedule at the end of the current session.

List Of Abbrevation

Anat-SGD	Small Group Discussion in Anatomy	**G. Med-L**	General Medicine Lecture
Bio-L	Biochemistry Lecture	**OSPE**	Objectively Structured Practical Examination
Bio-P	Biochemistry Practical	**Paeds-L**	Pediatrics Lecture
Bio-SGD	Small Group Discussion in Biochemistry	**Patho-L**	Pathology Lecture
C.Med-L	Community Medicine Lecture	**Phar-L**	Pharmacology Lecture
DSL	Directed Self Learning	**Phy-L**	Physiology Lecture
FDT	Film/Demonstration/Tutorial	**Phy-P**	Physiology Practical
F. Med-L	Forensic Medicine Lecture	**Phy-SGD**	Small Group Discussion inPhysiology
G. Anat-L	Gross Anatomy Lecture	**PBL**	Problem Based Learning
Histo-P	Histology Practical	**SDL**	Self-Directed Learning
LGIS	Large Group Interactive Session	**SAQs**	Short Answer Questions
MCQs	Multiple Choice Questions	**SEQs**	Short Essay Questions
Med.Edu-L	Medical Education Lecture	**SGDs**	Small Group Discussions
PRIME	**P**rofessionalism and Communication Skills, **R**esearch, **I**dentity Formation, **M**anagement and Leadership, **E**thics		

Module Committee:

s.no	Name	Department	Role
1.	Prof. Dr. Aziz Ahmad	Dean / principal	
2.	Dr. M Junaid Khan	DME	Director
		Module Team	
3.	Prof. Dr. Rashid Ahmad	Professor & VP admin, Department of Physiology, Swat Medical College	**Chairman**
4.	Prof. Dr. Muhammad Khan	Professor, Department of Anatomy, Swat Medical College	**Member**
5.	Dr. Ubaid ur Rahman	Assistant Professor, Department of Biochemistry, Swat Medical College.	**Member**
6.	Dr. Amanullah	Assistant Professor, Department of Physiology, Swat Medical College.	**Member**
7.	Dr. Humaira Ali	Associate Professor, Department of Anatomy, Swat Medical College	**Member**
8.	Dr. Sara Maryam	Assistant Professor, Department of Biochemistry, Swat Medical College	**Member**
9.	Dr. Fiza Iqbal	Demonstrator, Department of Physiology, Swat Medical College	**Member**
10.	Dr. Ubaidullah	Senior Lecturer, Community Medicine, Swat Medical College	**Member**

Recommended List of Icons

Introduction To Case

For Objectives

Critical Questions

Assessment

Resource Material

Mission/ Vision of the College

Mission Statement of the Institution:

To train medical students as per international standards, thereby producing doctors who exhibit excellence as professional, academicians, researchers and adeptly fulfil community healthcare needs through the application of ethical and evidence-based practices.

Vision Statement of the Institution:

To be a center of excellence in medical education, patient care and research globally.

Overview of the Module/ Preface

Welcome to the MBBS program/Neuroscience 1B where the overarching goal is to equip students with a profound understanding of medical science and practice. Throughout the Neuroscience 1B, emphasis is placed on integrating theoretical knowledge with practical applications, ensuring a comprehensive educational experience. The core themes of modules, including Facial palsy (face, 5th and 7th cranial nerves), Neck swelling (thyroid, larynx, neck, muscles etc.), Cleft palate (palate, tongue, pharynx), Anosmia, Diplopia / blindness (2nd, 3rd, 4th, 6th cranial nerve / eye ball / orbit), Deafness (ear / 8th nerve) are meticulously designed to foster a deep understanding of anatomy, physiology, Bio chemistry, pathology, pharmacology, and clinical skills.

Students will gain hands-on experience through clinical rotations in diverse settings such as Skill lab, interactive lectures and SGDs, providing a well-rounded education. The study guide serves as a crucial reference for assessment and evaluation. It outlines the components that will be assessed, such as knowledge and basic sciences practical implications, and the corresponding assessment tools, which include MCQs, SEQ and OSPE.

As future medical professionals, graduates can look forward to diverse career pathways, from clinical practice to research, with opportunities in anatomy, physiology, Bio chemistry, pathology, pharmacology, and clinical skills. In essence, the study guide acts as an indispensable tool for students, offering clarity on module contents, instructional methodologies, faculty guidance, and assessment criteria. By actively engaging with the information provided, students can navigate their academic journey with confidence and purpose, maximizing their learning experience in the MBBS Program.

Introduction/ Organization of Module

Introduction:

The Neurosciences Module-IB is 6-weeks Module consisting of introduction to the Nervous system which includes structural and functional features of peripheral nerves, brain & spinal cord. It also includes basic anatomical and physiological concepts about the human nervous system and its development. Clinical, PRIME and behavioral sciences are also included in this module. The contents of the module will be taught in LGF-Lectures, DSL and SGF-Practicals, SGDs, SDL.

Rationale:

This module will help the learner better understand the Anatomy, Physiology, Bio chemistry, as well as related clinical aspects of Pathology, Pharmacology, community medicine, General, Medicine Prime and surgery. The central and peripheral nervous system constitute an important mean to control all voluntary and in voluntary body activities. In addition, it also differentiates Human beings from other living worlds in term of higher mental facilities.

Organization of the Study guide:

The module consists of 6 themes. Each theme has clear learning objectives. Major emphasis will be on real Patient Examination, Discussion, Laboratory and Imaging investigation and Interpretation, Case analysis, diagnosis and management plan will be made by student under the guidance of faculty supervisors. The Theme one real life scenarios, and will give a fair idea to the student that how patients present in day-to-day clinical practices. Your daily activities would be divided into different states. Please refer to time table for more details regarding organization of learning objectives.

Teaching Strategies:

The following teaching/ learning methods are used to promote better understanding:

A. Large Group Formats:

   a. Interactive Lectures: In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos

of patients' interviews, exercises, etc. Students are actively involved in the learning process.

b. Directed Self-Learning: Directed self-learning is an active learning approach where the learners are provided with predefined learning objectives and some facilitation through the learning process in the form of guidance and supervision. It helps to establish a strong foundation for autonomous and deep learning.

c. Self-Directed Learning: Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

B. Small Group Formats:

a. Small Group Discussions: This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

b. Practical Demonstration: Basic science practicals related to anatomy, biochemistry and physiology are scheduled for student learning.

Assessment strategies

Assessments within the MBBS program at STMC consist of both formative and summative evaluations. These assessments are integral to monitoring student progress and academic performance.

A. Formative Assessment:

Formative assessments, accounting for 10% of the total marks assigned to each block, serve as ongoing evaluations designed to provide feedback and facilitate learning. The allocation of this 10% can be determined in accordance with the blueprint of KMU and further distributed as per the academic council's recommendations at STMC. Formative assessments are conducted after the completion of each module, ensuring that students receive timely feedback to enhance their understanding and performance.

B. Summative Assessment:

Summative assessments, which comprise the majority of the assessment weighting (90% of all marks), are conducted and overseen by KMU, as part of the annual examination process. The summative annual examination is organized and conducted by KMU, which carries out the

evaluation and grading. This summative assessment evaluates students' comprehensive understanding of the curriculum and accounts for a significant portion of their final scores.

C. Assessment Tools:

Various assessment tools are employed to gauge students' knowledge and competencies. These tools include:

- Written Examinations: These encompass Multiple Choice Questions (MCQ) and Short Essay Questions (SEQ) that evaluate students' theoretical knowledge.
- Performance Assessments: Objective Structured Practical Examinations (OSPE) are used to assess practical skills of the students.
- Assignments: Presentations, projects, and self-reflection assignments are included in the assessment process to enhance students' critical thinking and research skills

D. Other: Continuous assessment of students through punctuality, holding high ethical standards and observing good behavior.

Feedback mechanism and summary

At the end of each module a “Module Evaluation Form” will be provided to the students whether in hard copies or online and the students will give their opinion regarding the “Course Contents”, “Learning Resources”, “Teaching Methods”, “Engagement & Motivation” and “Assessment Methods”.

Table Of Specification

Subject	No. of Hours Allocated in Time table						Percent Distribution	Assessment	
	Large Group Format		Small Group Format			Total		MCQs	OSPE
	Lectures	DSLs	Practicals	SGDs	Model Dissection				
Gross Anatomy	31	02	10	04	10	69	47.58%	17	04
Histology	05							05	
Embryology	07							05	
Physiology	16	01	10	04	00	31	21.37%	18	04
Biochemistry	10	02	00	04	00	16	11.03%	03	01
PRIME	05	00	00	00	00	05	3.44%	02	00
Community Medicine	02	00	00	00	00	02	1.37%	00	00
General Medicine	02	00	00	00	00	02	1.37%	01	00
ENT	03	00	00	00	00	03	2.06%	01	00
Pediatric Surgery	01	00	00	00	00	01	0.68%	01	00
Ophthalmology	01	00	00	00	00	01	0.68%	01	00
Pak. Studies	04	00	00	00	00	04	2.75%	--	--
SDL	--	--	--	--	--	11	7.58%	--	--
Total	**87**	**05**	**20**	**12**	**10**	**145**	**100%**	**54**	**09**

Learning Objectives

General Learning Outcomes

By the end of this module the students would be able to;

Knowledge

At the end of this module, the 2nd year students will be able to:

1. Describe the structure of vertebrae, skull bones palate, pharynx, larynx, facial bones and base of theskull
2. Describe the contents walls and boundaries of anterior and posterior triangles of the neck
3. Describe the structure, relation, blood supply and venous drainage of thyroid
4. Describe the arteries, veins and nerves of the neck including cervical plexuses
5. Describe the nuclei, course, relations, and structures supplies by all cranial nerves
6. Describe the origin, course, relations and structures supplies by the arteries, veins and lymphatics ofhead and neck
7. Describe the anatomy of all the muscles of facial expression and head and neck
8. Describe the structure and functions of eye, ears, nose and paranasal sinuses
9. Describe the development of different structures of organs of the head and neck
10. Identify the microscopic structure of salivary glands and tongue
11. Examine a standardized patient`s cranial nerves
12. Demonstrate Perimetry and Audiometry

Skills

1. Identify the slide of submandibular, sublingual, salivary &thyroid glands under the microscope
2. Identify the slide of tongue under the microscope
3. Identify the histological layers of parotid gland under the microscope
4. Examine the cranial nerves V, VII, XI, XII, I, IX, X on a standardized patient
5. Examine a standardized patient for visual acuity and errors of refraction
6. Examine a standardized patient for visual field function
7. Examine a standardized patient for oculomotor, Abducent and Trochlear nerves with anophthalmoscope
8. Examine a standardized patient for hearing loss with tuning fork (Weber and Rinne`s test)
9. Examine a standardized patient for functions of inner ear
10. Follow the basic laboratory protocols.

Attitude

1. Follow the basic laboratory protocols.
2. Participate in class and practical work efficiently.
3. Maintain discipline of the college.
4. Follow the norms of the college properly.
5. Communicate effectively in a team with colleagues and teachers.
6. Demonstrate professionalism and ethical values in dealing with patients, cadavers, colleagues and teachers.
7. Communicate effectively in a team with colleagues and teachers.
8. Demonstrate the ability to reflect on the performance.

Specific Learning Outcomes

Theme-1 (Facial Palsy)

Introduction:

This module is one & half week long mostly emphasizing on the anatomical aspects of skull bones. It also includes the study of scalp and facial muscles with their blood and nerve supply, temporomandibular joint, development of face and a brief account of seventh nerve abnormalities. This module will throw light on advanced biochemical tools such as polymerase chain reaction (PCR). This module consists of LGF-lectures, DSL and SGF-Practicals, SGDs, SDL.

S. No	Topic	Learning objectives	Hours	MIT
		GROSS ANATOMY		
1	Mandible	Describe the gross features of adult mandible. Describe the bony features of mandible Name the joints formed by mandible Name the attachment of muscles and ligaments on mandible	1	LGF/SGD
2	Skull	Describe the bony features of frontal view of skull Name the bones forming the base of skull Name the bony features of lateral aspect of skull Identify the different foraminaand name the structures passing through these foramina Describe the attachment and relation of base of skull Describe the clinical importance.	1	LGF/SGD
3	Head	Name the boundaries of temporal fossa Enumerate the contents of temporal fossa Describe the relations of temporal fossa Name the boundaries of infratemporal fossa Enlist the contents of fossa Describe the relations of Infratemporal fossa Name the layers of scalp Describe the muscles of scalp Name the neurovascular supply of scalp Describe the lymphatic drainage of scalp Name the fascial muscles along with attachments, nerve supply and actions Enumerate the muscles od mastication along with their attachments, nerve supply and actions Describe the blood supply and lymphatic drainage of face portion Name the type of TMJ Name the ligaments related with TMJ Describe the relations of TMJ Name the muscles causing movements of TMJ Name the neurovascular supply of TMJ Describe the extra cranial course of CN VII along with its clinical importance	1	LGF/SGD

EMBRYOLOGY				
4	Face	Discuss the five facial primordia Describe the inter-maxillary segment Describe the embryological defects of face	1	LGF/SGD
HISTOLOGY				
5	Parotid glands	Identify the variety of gland according to nature of itsacinus Discuss the capsular structure and its extensions in the gland Differentiate between the stroma and parenchyma ofparotid gland Describe the ductal system ofthe gland and its lining epithelium Differentiate between the intercalated and striated ducts in Intralobular parts of gland Describe the detailed structure of serous acinus Discuss the location of Stenson's duct and its structure Discuss clinical conditions related with parotid gland	1	LGF/SGD
BIOCHEMISTRY				
6	Biotechnology	Describe the indications and procedure of Polymerase Chain Reaction (PCR), Cloning and Restriction fragment length polymorphism(RFLP)	1	LGF/SGD
7	Purine Nucleotide synthesis & degradation	Describe the process of nucleotide synthesis and degradation	1	LGF/SGD
8	Hyperuricemia-Gout	Describe the normal levels of serum Uric acid in the blood Describe the mechanism of synthesis of Uric acid fromPurines Describe the etiology, pathogenesis and clinical features of Gout	1	LGF/SGD
9	Pyrimidine Nucleotide synthesis and degradation	Describe the mechanisms ofPyrimidines synthesis and degradation	1	LGF/SGD
10	Salvage pathway ofnucleotide synthesis	Explain the salvage pathway ofNucleotide synthesis	1	LGF/SGD
11	The structural basis of cellular information	Explain the structural basis ofcellular information	1	LGF/SGD
12	DNA, chromosomes, discovery and organization in genome	Explain the structure, organization and functions of Chromosomes, DNA and genes	1	LGF/SGD
13	DNA replication	Describe the process of DNA replication	1	LGF/SGD
14	Mutation, DNA, damage and repairs	Define mutation. Explain the mechanisms of DNA damage and repair	1	LGF/SGD
MEDICINE				
15	Bell`s palsy	Describe the clinical featuresand management of Bell`s palsy	1	LGF/SGD

LAB WORK				
HISTOLOGY				
16	Submandibular and Sublingual Salivary Gland	Identify the slide of submandibular and sublingual salivary glands under the microscope	2	Demonstration /Practical
PHYSIOLOGY				
17	Examination of Cranialnerves, V, VII	Examine the cranial nerves V & VII on a standardized patient	2	Demonstration /Practical
DIRECTED SELF-LEARNINGS				
ANATOMY				
18	Blood supply and lymphatic drainage of face	Describe the blood supply and lymphatic drainage of face portion.	1	DSL
PHYSIOLOGY				
19	Sense of taste	Discuss primary sensations of taste Explain threshold for taste Describe the taste bud and its function Describe mechanism of stimulation of taste buds Describe transmission of taste signals into the central nervous system	1	DSL
BIOCHEMISTRY				
20	PCR	Describe the indications and procedure of Polymerase Chain Reaction.	1	DSL
SMALL GROUP DISCUSSIONS				
ANATOMY				
21	Scalp Muscles	Describe the muscles of scalp	2	SGD
PHYSIOLOGY				
22	Limbic system	Describe the principal components of the limbic system:hippocampus, amygdala, prefrontal cortex, and nucleus accumbens), the pathways connecting them and their functions.	2	SGD
BIOCHEMISTRY				
23	PCR	Describe the indications and procedure of Polymerase Chain Reaction.	2	SGD

Theme-2 (Neck Swelling)

Introduction:

This one & half week long theme consists of anatomical description of cervical vertebrae, hyoid bone and larynx with embryological features of pharyngeal apparatus and histological features of thyroid gland. It also describes anterior and posterior triangles of the neck with emphasis on their contents and boundaries, blood supply of the neck and cervical plexus. This module consists of LGF-lectures and SGF-Practical's, SGDs, SDL.

S. No	Topic	Learning objectives	Hours	MIT
GROSS ANATOMY				
1	Cervical vertebrae.	Describe the bony features of typical cervical vertebrae Name the joints formed by typical vertebrae Describe the attachments Describe the bony features of atypical cervical vertebrae Name the joints formed by atypical vertebrae Describe the attachments	1	LGF/SGD
2	Hyoid bone	Describe the bony features of hyoid bone Describe the attachments of muscles and ligaments with hyoid bone	1	LGF/SGD
3	Pterygopalatine fossa	Name the boundaries of pterygopalatine fossa Enumerate the contents of pterygopalatine fossa Describe the relations of pterygopalatine fossa	1	LGF/SGD
4	Neck	Enumerate the layers of deep cervical fascia Draw and labelled diagram of transverse section of neck showing deep cervical fascia Describe the layers of deep cervical fascia along with its clinical importance Name the paired and unpaired cartilages oflarynx Enumerate the ligaments and membrane of larynx Describe the sensory and blood supply of larynx Enumerate the intrinsic and extrinsic muscle of larynx along with its actions and nerve supply Describe the pyriform fossa Enlist the subdivisions of anterior triangle of neck Describe the boundaries and contents of submental triangle Describe the boundaries and contents of carotid triangle Describe the boundaries and contents of digastric triangle	1	LGF/SGD

		Describe the boundaries and contents of muscular triangle Enlist the subdivisions of posterior triangle of neck Describe the boundaries and contents of occipital triangle Describe the boundaries and contents of supraclavicular triangle Describe the course, Distribution and branches of main arteries of neck Describe the course, Draining and tributaries of main veins of neck Describe the cervical plexus along with its branches and distribution		
EMBRYOLOGY				
5	Pharyngeal apparatus	Describe the components of pharyngeal apparatus. Describe the development of pharyngeal apparatus Enlist the derivatives of the first pharyngeal arch Define the terms pharyngeal arch, pouch, cleft and membrane Enumerate the derivatives of the second pharyngeal arch Enumerate the derivatives of the 3rd pharyngeal arch Enumerate the derivatives of the 4th pharyngeal arch Enlist the derivatives of 1st ,2nd, 3rd and 4th pharyngeal pouches Describe the derivatives of pharyngeal, grooves, and membranes Discuss the arterial supply and innervation of the pharyngeal arches Describe the pharyngeal membranes Discuss the branchial cyst, sinuses, and fistula Describe the 1st arch developmental defects	1	LGF/SGD
ENT				
6	Lump in neck	Approach to a patient with lump in the neck	1	LGF/SGD
LAB WORK				
HISTOLOGY				
7	Thyroid gland	Identify the slide of thyroid gland under the microscope	2	Demonstration /Practical
PHYSIOLOGY				
8	Examination of Cranialnerves XI, XII	Examine a standardized patient for Cranial nerves XI, XII	2	Demonstration /Practical
DIRECTED SELF-LEARNINGS				
ANATOMY				
9	Deep fascia ofneck	Enumerate the layers of deep cervical fascia Draw and labelled diagram of transverse section of neck showingdeep cervical fascia Describe the layers of deep cervical fascia	1	DSL

		along with its clinical importance		
PHYSIOLOGY				
10	Fluid system of the eye	Describe the formation of aqueous humor by the ciliary bodyDescribe the outflow of aqueous humor from the eye Describe Regulation of Intraocular Pressure and Glaucoma	1	DSL
BIOCHEMISTRY				
11	Salvage Pathway	Explain the salvage pathway of Nucleotide synthesis	1	DSL
SMALL GROUP DISCUSSIONS				
ANATOMY				
12	Face Structure in general	Face Structure in general	2	SGD
PHYSIOLOGY				
13	Basal Ganglia	Describe the anatomical and physiological classification of basal ganglia.	2	SGD
BIOCHEMISTRY				
14	Salvage pathway of nucleotide synthesis	Explain the salvage pathway of Nucleotide synthesis	2	SGD

Theme-3 & 4 (Anosmia/Cleft Palate)

Introduction:

This is one-week module which consists of two themes.

Anosmia

This module consists of the anatomical and embryological study of nose and paranasal sinuses. It also includes the physiology of smell signal transmission and olfactory pathways into the central nervous system. There is a lecture of ENT discussing acute and chronic sinusitis. This module consists of lectures, Practical's, SGDs, DSL and SDL.

Cleft Palate

This module consists of the anatomical, embryological and histological study of tongue, salivary glands, palate and pharynx. It also includes the physiology of taste buds and taste signal transmission into the central nervous system. There is a lecture of pediatric surgery discussing cleft palate/lip. This module consists of lectures, Practical's, SGDs, DSL and SDL.

S. No	Topic	Learning objectives	Hours	MIT
		ANATOMY		
1	Nose and paranasal sinuses	Describe the external features of nose Describe the relations of nose with other structures Describe the nasal septum Describe the lateral wall of nose Name the neurovascular supply of nose Describe the olfactory nerve Describe the paranasal sinuses along with its clinical importance	1	LGF/SGD
		EMBRYOLOGY		
2	Development of nose	Describe the development of nasal cavities and paranasal air sinuses. Describe the development of nasolacrimal groove, duct, and sac Enlist developmental defects of nose	1	LGF/SGD
		PHYSIOLOGY		
3	Sense of Smell	Describe olfactory membrane Explain mechanism of excitation of the olfactory cells. Discuss Rapid Adaptation of Olfactory Sensations. Define threshold for smell Describe transmission of smell signals into the central nervous system Describe primitive and newer olfactory pathways into the central nervous system Describe centrifugal control of activity inthe olfactory bulb by the central nervous system.	1	LGF/SGD
		ENT		
4	Sinusitis	Describe the causes and clinical features ofacute and chronic sinusitis	1	LGF/SGD
		GROSS ANATOMY		
5	Tongue	Describe the mucosa and muscles of tongue along with its attachments, nerve supply andactions	1	LGF/SGD
6	Salivary glands	Name the salivary glands Describe the location of each gland Describe the relations of each gland Name the nerve supply Describe the drainage of salivary glands along with its importance	1	LGF/SGD
7	Palate	Name the bones forming the hard palate Describe the soft palate along with its muscles, attachments and nerve supply Describe the relations of palate Name the neurovascular supply of palate	1	LGF/SGD

8	Pharynx	Enumerate the division of pharynx Describe the nasopharynx with its clinical significance Describe the oropharynx with its clinical Significance Describe the laryngopharynx with its clinical significance Enlist the muscles of pharynx with its nerve supply and actions	1	LGF/SGD
9	Extra-cranialcourse of CN IX,X, XI, XII	Describe the extra cranial course of CN IX,X, XI and XII	1	LGF/SGD
EMBRYOLOGY				
10	Tongue	Describe the development of anterior 2/3 ofthe tongue Discuss the role of the third pharyngeal arch in tongue development. Discuss the innervation, blood vessels, and muscles of tongue. Describe the development of papillae, taste buds and salivary glands. Describe the developmental anomalies of tongue.	1	LGF/SGD
11	Palate	Describe the development of primary and secondary palate. Discuss the developmental defects of lip and primary, secondary palate	1	LGF/SGD
HISTOLOGY				
12	Major salivary glands.	Identify the variety of gland according to nature of its acinus. Discuss the capsular structure and its extensions in the gland Differentiate between the stroma and parenchyma of submandibular gland Describe the ductal system of the gland and its differences with parotid gland Describe the detailed structure of serous and mucous acinus Discuss the formation of serous Demilune Discuss the opening of Wharton's duct Discuss different pathological conditions of the gland Identify the variety of gland according to its nature of acinus Differentiate between the stroma and parenchyma of sublingual gland Describe the ductal system of the gland and its lining epithelium Describe the detailed structure of its acinus Discuss the opening of Bartholin ducts Discuss different pathological conditions of the gland	1	LGF/SGD
PHYSIOLOGY				
13	Sense ofTaste	Discuss primary sensations of taste Explain threshold for taste Describe the taste bud and its function Describe mechanism of stimulation of taste buds Describe transmission of taste signals into the central nervous system	1	LGF/SGD
PEDIATRIC SURGERY				
14	Cleft palate	Describe the pathogenesis, clinical features and management of a patient with cleft palate	1	LGF/SGD
LAB WORK				
HISTOLOGY				
15	Tongue	Identify the slide of tongue under the microscope	2	Practical
PHYSIOLOGY				

	Examination of Cranial nerves I, IX, X	Examine a standardized patient for cranial nerve I, IX, Xexamination (sense of smell, taste, gag reflex)	2	Practical
DIRECTED SELF-LEARNINGS				
ANATOMY				
16	Nose and Paranasal Sinuses	Describe the external features of nose Describe the relations of nose with other structures Describe the nasal septum Describe the lateral wall of nose Name the neurovascular supply of nose Describe the olfactory nerve Describe the paranasal sinuses along with its clinical importance	1	DSL
PHYSIOLOGY				
17		Discuss primary sensations of taste Explain the threshold for taste Describe the taste bid and its function Describe mechanism of stimulation of taste buds Describe transmission of taste signals into the central nervoussystem	1	DSL
SMALL GROUP DISCUSSIONS				
ANATOMY				
18	Hard & Soft palate&Tongue	Describe the mucosa and muscles of tongue along with itsattachments, nerve supply and actions. Name the bones forming the hard palate Describe the soft palate along with its muscles, attachments and nerve supply Describe the relations of palate Name the neurovascular supply of palate	2	SGD
PHYSIOLOGY				
19	Sense of Smell	Describe olfactory membrane Explain mechanism of excitation of the olfactory cells. Discuss Rapid Adaptation of Olfactory Sensations. Define threshold for smell Describe transmission of smell signals into the central nervous system Describe primitive and newer olfactory pathways into thecentral nervous system Describe centrifugal control of activity in the olfactory bulb by the central nervous system.	2	SGD
BIOCHEMISTRY				
20	Hyperuricemia-Gout	Describe the normal levels of serum Uric acid in the bloodDescribe the mechanism of synthesis of Uric acid from Purines Describe the etiology, pathogenesis and clinical features of Gout	2	SGD

Theme-5 (Diplopia)

Introduction:

This one-week module consists of anatomical features of bony orbit, eye ball and extra cranial course of cranial nerves III, IV & VI with emphasis on the embryological and histological features of the eye. It includes the physiological aspects of principles of optics, intraocular fluid, retinal function & structure, photochemistry of vision, pupillary reflexes and autonomic control of accommodation and pupillary aperture. This module has a lecture on ocular nerve palsies III, IV, VI by the department of medicine, prevention of blindness by the department of community medicine and examination of abnormities of eye movements and blindness by the department of ophthalmology. This module consists of lectures, practical's, SGDs, DSL and SDLs.

S. No	Topic	Learning objectives	Hours	MIT
GROSS ANATOMY				
1	Bony orbit	Name the bones forming the bony orbit Identify the foramina, fissures, and fossae associated with the orbit and what are the structures transmitted through these openings. Name the contents of orbit	1	LGF/SGD
2	Eye ball	Name the layers of eyeball Describe the fibrous layer of eyeball Describe the pigmented layers of eyeball Describe the inner nervous layer of eyeball Describe the chambers and of eyeball Describe the secretion and drainage of aqueous humor and vitreous humor Describe the neurovascular supply of eye Describe the intra and extraocular muscles with their attachment, actions and nervesupply	1	LGF/SGD
3	Extra cranial course of CN I, III, IV, VI	Describe the course of CN I, III, IV, VI in orbit and their applied aspects.	1	LGF/SGD
EMBRYOLOGY				
4	Eye	Define lens placode and formation and optic cup. Describe the development of ciliary body, iris, lens and choroid. Discuss the formation of sclera, cornea, sphincter and dilator pupillae Discuss the development of vitreous body and optic nerve Describe developmental anomalies of eye	1	LGF/SGD
HISTOLOGY				
5	Eye	Enlist different histological layers of the eye Discuss retinal pigment epithelium (RPE) in detail Describe the structural details of rods and cones and the supporting cells Discuss structure of macula densa Describe the histological layers of cornea and retina	1	LGF/SGD
PHYSIOLOGY				
6	Optics	Describe refraction at interface between two media.	1	LGF/SGD

		Describe the physical principles of optics. Apply refractive principles to lenses Describe Focal Length of a Lens Explain formation of image by convex lenses Explain how to measure refractive power of a lens		
7	Optics of The Eye	Explain lens system of the eye. Describe the concept of "Reduced" Eye. Explain accommodation reflex. Explain presbyopia Describe that "depth of focus" of the lens system increases with decreasing pupillary diameter Define visual acuity. Explain the determination of distance of an object from the eye- "DEPTH PERCEPTION" Describe errors of refraction	1	LGF/SGD
8	Fluid System of the Eye	Describe the formation of aqueous humor by the ciliary body Describe the outflow of aqueous humor from the eye Describe Regulation of Intraocular Pressure and Glaucoma	1	LGF/SGD
9	The Retina -I	Describe foveal region of the retina and its importance in acute vision. Discuss the functional parts of the Rods and Cones. Describe blood supply of the retina the central retinal artery and the choroid	1	LGF/SGD
10	Photochemistry -I	Explain rhodopsin-retinal visual cycle and excitation of the rods Explain the role of vitamin A for formation of rhodopsin. Describe excitation of the rod when rhodopsin is activated by light Describe receptor potential, and logarithmic relation of the receptor potential to light intensity Describe mechanism by which rhodopsin decomposition decreases membrane sodium conductance—the excitation "cascade." Explain dark and light adaptation.	1	LGF/SGD
11	Photochemistry -II	Describe photochemistry of color vision by the cones Explain tricolor mechanism of color detection Explain Young-Helmholtz theory of color vision. Explain color blindness.	1	LGF/SGD
12	The Retina -II	Describe different neuronal cell types and their functions Describe the visual pathway from the cones to the ganglion cells Discuss the retinal neurotransmitters. Discuss retinal ganglion cells and their	1	LGF/SGD

		respective fields Describe lateral inhibition. Explain excitation of ganglion cells. Discuss on and off response of ganglion cells.		
13	Visual Pathways	Discuss the function of the dorsal lateral geniculate nucleus of the thalamus. Describe organization and function of the visual cortex Describe primary visual cortex. Describe secondary visual areas of the cortex. Describe two major pathways for analysis of visual information: (1) the fast "position" and "motion" pathway and (2) the accurate color pathway Describe neuronal patterns of stimulation during analysis of the visual image Discuss detection of color	1	LGF/SGD
14	Eye Movementsand Their Control	Describe muscular control of eye movements. Describe neural pathways for control of eye movements. Describe fixation movements of the eyes Explain mechanism of involuntary locking fixation—role of the superior colliculi. Explain "Fusion" of the visual images from the two eyes Describe neural mechanism of stereopsis for judging distances of visual objects	1	LGF/SGD
15	Accommodation Reflex	Describe autonomic nerves to the eyes Describe control of accommodation Describe control of pupillary diameter Discuss Pupillary reflexes or reactions in central nervous system disease.	1	LGF/SGD
COMMUNITY MEDICINE				
16	Prevention of Blindness	Describe the causative agents and prevention of community blindness	1	LGF/SGD
MEDICINE				
17	Ocular nerves Palsies	Describe the clinical features and etiology of 3, 4 and 6th nerve palsies	1	LGF/SGD
OPHTHALMOLOGY				
18	Blindness	Approach a patient with unilateral and bilateral blindness	1	LGF/SGD
LAB WORK				
HISTOLOGY				
19	Parotid Gland	Identify the histological layers of parotid gland under themicroscope	2	Demonstration /Practical
PHYSIOLOGY				
20	Visual Acuity	Examine a standardized patient for visual acuity and errors of refraction	2	Demonstration /Practical
21	Perimetry	Examine a standardized patient for visual field function	2	Demonstration /Practical
DIRECTED SELF-LEARNINGS				
ANATOMY				
22	Eye ball anddifferent chambers	Name the layers of eyeball Describe the fibrous layer of eyeball	1	DSL

		Describe the pigmented layers of eyeball Describe the inner nervous layer of eyeball Describe the chambers and of eyeball Describe the secretion and drainage of aqueous humor and vitreoushumor Describe the neurovascular supply of eye Describe the intra and extraocular muscles with their attachment,actions and nerve supply		
PHYSIOLOGY				
23	Visual Pathways	Discuss the function of the dorsal lateral geniculatenucleus of the thalamus. Describe organization and function of the visual cortexDescribe primary visual cortex. Describe secondary visual areas of the cortex. Describe two major pathways for analysis of visual information: (1) the fast “position” and “motion” pathwayDand (2) the accurate color pathway Describe neuronal patterns of stimulation during analysisof the visual image Discuss detection of color	1	DSL
BIOCHEMISTRY				
24	Mutation, DNA,damage and repairs	Define mutation. Explain the mechanisms of DNA damage and repair	1	DSL

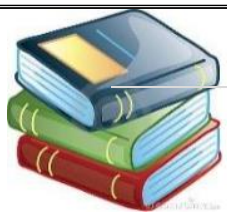
Theme-6 (Deafness)

Introduction:

This is one-week module consists of anatomy and embryology of ear. It includes physiology of tympanic membrane, cochlear function, auditory pathways and vestibular function. It also includes clinical topics like hearing loss. This module consists of lectures, Practical's, SGDs, DSL and SDLs.

S. No	Topic	Learning objectives	Hours	MIT
GROSS ANATOMY				
1	Ear	Describe the auricle Describe the external auditory meatus with clinical importance Name the neurovascular supply of external ear Name the boundaries of middle ear	1	LGF/SGD
2	Inner ear	Describe the contents of middle ear Describe the auditory tube along with its clinical importance Describe the bony labyrinth Describe the membranous labyrinth Describe the course of CN VIII along with its clinical importance	1	LGF/SGD
EMBRYOLOGY				
3	Development of ears	Describe the development of external and middle ear Explain the origin of internal ear along the relationship of saccule, utricle, semi-circular canals Describe the development of cochlear duct and organ of corti Enlist the developmental anomalies of external middle and internal ear	1	LGF/SGD
PHYSIOLOGY				
4	Function of Middle Ear	Explain conduction of sound from the tympanic membrane to the cochlea. Describe "Impedance Matching" by the Ossicular System. Describe attenuation of sound by contraction of the tensor tympani and stapedius muscles. Describe transmission of sound through bone.	1	LGF/SGD
5	Cochlea	Describe functional anatomy of the cochlea Describe basilar membrane and resonance in the cochlea. Describe transmission of sound waves in the cochlea— "traveling wave" Describe pattern of vibration of the basilar membrane for different sound frequencies. Describe amplitude pattern of vibration of the basilar membrane. Describe function of the organ of corte Describe Excitation of the Hair Cells Discuss the "place" principle Describe detection of changes in loudness—the power law. Describe threshold for hearing sound at different frequencies.	1	LGF/SGD
6	Auditory Nervous Pathways	Describe auditory pathway. Explain the function of the cerebral cortex in hearing.	1	LGF/SGD

		Describe how to determine the direction from which sounds come. Describe transmission of centrifugal signals from CNS to lower auditory centers Describe different types of deafness.		
7	Vestibular Sensations and Maintenanceof Equilibrium	Describe the physiologic anatomy of vestibular apparatus Describe function of the utricle and saccule in the maintenance of static equilibrium Describe function of semi-circular ducts Describe Neuronal Connections of the Vestibular Apparatus Describe Vestibular mechanism for stabilizing the eyes	1	LGF/SGD
ENT				
8	Hearing loss	Describe different clinical tests for hearing loss Describe the etiology and management of conduction and sensorineural hearing loss	1	LGF/SGD
LAB WORK				
PHYSIOLOGY				
9	Examination of Cranial Nerves III, IVand VI	Examine a standardized patient for oculomotor, Abducensand Trochlear nerves with an ophthalmoscope	2	Demonstration /Practical
10	Tuning fork test	Examine a standardized patient for hearing losswith tuning fork (Weber and Rinne`s test)	2	Demonstration /Practical
11	Audiometry	Examine a standardized patient for functions of inner ear	2	Demonstration /Practical
DIRECTED SELF-LEARNINGS				
ANATOMY				
12	External and middle ear	Describe the auricle Describe the external auditory meatus with clinical importanceName the neurovascular supply of external ear Name the boundaries of middle ear Describe the contents of middle ear Describe the auditory tube along with its clinical importance	1	DSL
PHYSIOLOGY				
13	AuditoryNervous Pathways	Describe auditory pathway. Explain the function of the cerebral cortex in hearing. Describe how to determine the direction from which sounds come. Describe transmission of centrifugal signals from CNS to lower auditory centers Describe different types of deafness.	1	DSL
Small Group Discussions				
ANATOMY				
14	Ear model	Discuss Ear model	2	SGD
PHYSIOLOGY				
15	Auditory Nervous Pathways	Describe auditory pathway. Explain the function of the cerebral cortex in hearing.Describe how to determine the direction from which sounds come. Describe transmission of centrifugal signals from CNS tolower auditory centers Describe different types of deafness.	2	SGD

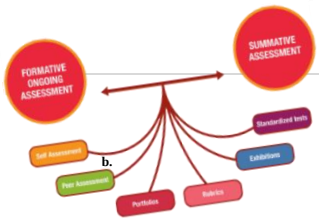


Learning Opportunities and Resources

- **Instruction:**
- Try to be regular in class as teacher is the best guide & facilitator.
- Make your studies a primary goal.
- Study your textbooks covering the learning objectives relevant to the topic of study, read reference books when needed and do use other learning resources such as videos, text relevant to the topic on website and research articles

a. Books:

S. No	Subject	Learning Resources/ Recommended Books
1.	Gross Anatomy	Clinical Anatomy by Regions by Richard S. Snell (Latest Edition)
		Gray's Anatomy for Students (Latest Edition)
		K.L. Moore, Clinically Oriented Anatomy (Latest Edition)
		Netter`s "Atlas of Human Anatomy (Latest Edition)
		Last`s Anatomy (Latest Edition)
2.	Histology	Textbook of Histology by Junqueira (Latest Edition)
		DiFiore's ATLAS of Histology with Functional Correlations (Latest Edition)
		Atlas of Human Histology by Wheatears. (Latest Edition)
		Textbook of Histology by Laiq Hussain (Latest Edition)
3.	Embryology	Langman's Medical Embryology (Latest Edition)
		The Developing Human "by Keith L Moore" (Latest Edition)
4.	Physiology	Textbook of Medical Physiology by Guyton and Hall (Latest Edition)
		Ganong`s "Review of Medical Physiology" (Latest Edition)
5.	Biochemistry	Harper's Illustrated Biochemistry (Latest Edition)
		Lippincott's Illustrated Review: Biochemistry (Latest Edition)
6.	Pharmacology	Katzung`s Basic and Clinical Pharmacology (Latest Edition)
7.	Pathology	Robbin's Basic Pathology (Latest Edition)
8.	Community Medicine	Essential Community Medicine (Latest Edition) K Park Textbook of Preventive and Social Medicine (Latest Edition)
9.	General Medicine	Davidson`s Principles and Practice of Medicine (Latest Edition)
10.	Radiology	David Sutton's Textbook of Radiology and Imaging (Latest Edition)
11.	Neurosurgery	Greenberg's Textbook of Neurosurgery
		Rangacharya's Principles of Neurosurgery



Examination and Methods of Assessment:

a. Instruction:

- Students must arrive the examination venue at least 15 minutes before the scheduled start time. Late comers 15 minutes after the start of exam, will not be allowed to enter the examination hall, and if permitted, they will not receive extra time.
- Students without College ID Card and white Lab Coat will not be allowed to sit in the exam.
- In case of an emergency such as a medical emergency, students should inform the examination supervisor.
- Students are required to submit prohibited items such as mobile phones, smartwatches, electronic devices, books, notes, or any unauthorized materials before entering the examination hall.
- Students must maintain complete silence within the examination hall. They should refrain from communicating with fellow students.
- Students must mark their attendance properly and strictly follow invigilator instructions.
- No student will be allowed to leave the examination hall before half the time is over and paper should be properly handed to the examiner.
- Violation of these guidelines may lead to disqualification from the examination.

b. The Distribution of Internal Assessment Score (10% Marks):

The distribution of Internal Assessment Score for 2nd Year MBBS will be as follows:

- Total Marks for 2nd Year MBBS= 700 & Internal Assessment Marks=70 (10%)
- 50 % of the Internal Assessment Marks will be given to Block Exams
- 50 % of the Internal Assessment marks will be given to Class Test/ End of Module Exam, Assignments and Presentations.
- Physiology department is responsible to maintain the attendance record for BLOCK –D in coordination with all the concerned departments.
- Anatomy department is responsible to maintain the attendance record for BLOCK –E in coordination with all the concerned departments.
- Biochemistry department is responsible to maintain the attendance record for BLOCK –F in coordination with all the concerned departments.

A. Distribution of 20 Marks for Block Papers for Second Year MBBS will be as under:

Block	Block D	Block E	Block F	Total
Marks	07	6.5	6.5	20

B. Distribution of 15 Marks for Block OSPE will be as under:

Block	Block D	Block E	Block F	Total
Marks	05	05	05	15

C. Distribution of 20 marks for Class Test/ End of Module Exam & Assignments for 2nd tYear MBBS will be as under:

Subject (Theory)	Block D	Block E	Block F	Total
Class Test/ End of Module Exam	04	3.5	3.5	11
Assignments	03	03	03	09
Total	07	6.5	6.5	20

D. Distribution of 15 marks for Presentations, Attitude/ Behavior for 2nd Year MBBS will be as under:

Subject (OSPE)	Block D	Block E	Block F	Total
Presentations	03	03	03	09
Attitude/ Behavior	02	02	02	06
Total	05	05	05	15

c. <u>UNIVERSITY EXAM:</u> Exam has 90% Marks

- To appear in any university examination, more than 75% attendance in all disciplines is mandatory for the students.
- The Paper D will be comprised of 120 MCQs. The distribution of 90% Marks for Paper A Written Exam will be as under:

Blueprint for Theory Paper D			
Subject	**Neurosciences-IA Module**	**Neurosciences-IB Module**	**Total MCQs**
Gross Anatomy	21	17	38
Histology	6	5	11
Embryology	3	5	8
Physiology	27	18	45
Biochemistry	2	3	5
PRIME including Research	3	2	5
Medicine	1	1	2
Pharmacology	1	0	1
Pathology	1	0	1
Forensic medicine	1	0	1
EYE	0	1	1
ENT	0	1	1
Pediatric surgery	0	1	1
Total	**66**	**54**	**120**

- The distribution of OSPE stations for Paper D Practical Exam will be as under:

Blueprint for OSPE Paper D			
Specialty	**Practical**	**No. of Stations**	**Total**
Neurosciences-IA Anatomy	Osteology Nerve and Muscles Surface anatomy Embryology models Radiology	2	4
	Histology	1	
	Viva stations	1	
Neurosciences-IA Physiology	Superficial reflexes Deep tendon reflexes Descending Tracts Sensations	3	4
	Viva stations	1	
Neurosciences-IA Biochemistry	Viva stations	1	1
Neurosciences-IB Anatomy	Osteology Nerve and Muscles Surface anatomy Radiology	2	4
	Histology	1	
	Viva stations	1	
Neurosciences-IB Physiology	Ophthalmoscopy Visual acuity/ Perimetry Perimetry Tuning fork test Audiometry	3	4
	Viva stations	1	
Neurosciences-IB Biochemistry	Viva stations	1	1
Total			**18**

Tentative Timetables

SWAT MEDICAL COLLEGE

DEPARTMENT OF MEDICAL EDUCATION

TIME TABLE FOR NEUROSCIENCES 1B MODULE (2nd Year MBBS) SESSION 2023-24

WEEK-1

THEME 1 Facial Palsy:

Days	8:00 to 9:00 am	09:00 to 10:00 am	10:00 am to 11:00 am	11:00am to 1:00 pm		1:30 to 2:30 pm
Monday 18/03/024	**G. Anat-L1** Osteology of mandible **Dr.**	**G. Anat-L2** Norma frontalis **Dr.**	**G. Anat-L3** Norma basalis **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Phy **P Dr**. Batch B: Histo **P** Dr. Batch C: **Model Dissection Dr.**		**Anat-DSL** **Dr.**
Tuesday 19/03/024	**G. Anat-L4** Norma lateralis **Dr.**	**Bio-L1** Polymerase Chain Reaction **Dr.**	**G. Anat-L5** Scalp and muscles of facial expression **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: **Model Dissection Dr.** Batch B: Phy **P Dr.** Batch C: Histo **P Dr.**	**PRAYERS BREAK**	**Bio-DSL** Cloning and RFLP **Dr.**
Wednesday 20/03/024	**Bio-L2** Purine Nucleotide synthesis and degradation **Dr.**	**Emb-L1** Face development **Dr.**	**Bio-L3** Hyperuricemia-Gout **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Histo **P Dr.** Batch B: **Model Dissection Dr.** Batch C: Phy **P Dr.**		**Bio-L4** Pyrimidine Nucleotide synthesis and degradation **Dr.**
Thursday 21/03/024	**Histo-L1** Parotid glands **Dr.**	**G. Anat-L6** Muscles of mastication **Dr.**	**Bio-L5** Salvage pathway of nucleotide synthesis **Dr.**	**SGDs:** Batch A: Anat **Dr.** Batch B: Bio **Dr.** Batch C: Phy **Dr.**		**PRIME-L1** **Dr.**
Friday 22/03/024	**Pak Studies** Educational Movement **Mr.**	**09:00 to 11:00 am** **SGDs:** Batch A: Phy **Dr.** Batch B: Anat **Dr.** Batch C: Bio **Dr.**		**SGDs:** Batch A: Bio **Dr.** Batch B: Phy **Dr.** Batch C: Anat **Dr.**		**SDL** (SLRC/Library)

SWAT MEDICAL COLLEGE

DEPARTMENT OF MEDICAL EDUCATION

TIME TABLE FOR NEUROSCIENCES 1B MODULE (2nd Year MBBS) SESSION 2023-24

WEEK-2

THEME:1 Facial Palsy/ THEME: 2 Neck Swelling

Days	8:00 to 9:00 am	09:00 to 10:00 am	10:00 am to 11:00 am	11:00am to 1:00 pm			1:30 to 2:30 pm
Monday 25/03/024	**G. Anat-L6** Blood supply and lymphatic drainage of face **Dr.**	**Bio-L6** The structural basis of cellular information **Dr.**	**Bio-L7** DNA, chromosomes discovery and organization in genome **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Phy **P Dr**. Batch B: Histo **P** Dr. Batch C: **Model Dissection Dr.**		**PRAYERS BREAK**	**Anat-DSL** **Dr.**
Tuesday 26/03/024	**Bio-L8** DNA Replication **Dr.**	**G. Anat-L7** Temporomandibular Joint **Dr.**	**Bio-L9** Transcription **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: **Model Dissection Dr.** Batch B: Phy **P Dr.** Batch C: Histo **P Dr.**			**Physio-DSL** **Dr.**
Wednesday 27/03/024	**G. Anat-L8** Extra cranial course of CN VII **Dr.**	**Bio-L10** Protein synthesis **Dr.**	**G. Med-L1** Bell's Palsy **Prof. Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Histo **P Dr.** Batch B: **Model Dissection Dr.** Batch C: Phy **P Dr.**			**Bio-DSL** Mutation**,** DNA, damage and repairs **Dr.**
Thursday 28/03/024	**G. Anat-L9** Typical cervical vertebra **Dr.**	**G. Anat-L10** Atypical cervical vertebra **Dr.**	**Research-L1** **Prof. Dr.**	**11:00am to 12:00 pm**	**12:00 to 1:00 pm**		**PRIME-L2** **Dr.**
				G. Anat-L11 Hyoid bone **Dr.**	**G. Anat-L12** Pterygopalatine fossa **Dr.**		
Friday 29/03/024	**Pak Studies** Political Struggle **Mr.**	**G. Anat-L13** Deep fascia of neck **Dr.**	**G. Anat-L14** Larynx **Dr.**	**Emb-L2** Pharyngeal apparatus **Dr.**	**G. Anat-L15** Ant. triangle of neck **Dr.**		**SDL** (SLRC/Library)

SWAT MEDICAL COLLEGE

DEPARTMENT OF MEDICAL EDUCATION

TIME TABLE FOR NEUROSCIENCES 1B MODULE (2nd Year MBBS) SESSION 2023-24

WEEK-3

THEME: 2 Neck Swelling/ THEME: 3 Anosmia /THEME: 4 Cleft Palate

Days	8:00 to 9:00 am	09:00 to 10:00 am	10:00 am to 11:00 am	11:00am to 1:00 pm		1:30 to 2:30 pm
Monday 01/04/024	**G. Anat-L15** Posterior triangle of neck **Dr.**	**Histo-L2** Thyroid Gland **Dr.**	**G. Anat-L16** Arteries of neck **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Phy **P Dr.** Batch B: Histo **P** Dr. Batch C: **Model Dissection Dr.**	PRAYERS BREAK	**G. Anat-L17** Veins of neck **Dr.**
Tuesday 02/04/024	**G. Anat-L18** Cervical plexus and nerves of neck **Dr.**	**ENT-L1** Lump in the neck **Dr.**	**G. Anat-L19** Nose and Paranasal Sinuses **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: **Model Dissection Dr.** Batch B: Phy **P Dr.** Batch C: Histo **P Dr.**		**Emb-L3** Development of Nose **Dr.**
Wednesday 03/04/024	**Physio-L1** Sense of Smell **Dr.**	**ENT-L2** Sinusitis **Dr.**	**G. Anat-L20** Tongue **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Histo **P Dr.** Batch B: **Model Dissection Dr.** Batch C: Phy **P Dr.**		**G. Anat-L21** Salivary Glands **Dr.**
Thursday 04/04/024	**G. Anat-L22** Palate **Dr.**	**G. Anat-L23** Pharynx **Dr.**	**Physio-L2** Sense of Taste **Dr.**	**SGDs:** Batch A: Anat **SGD Dr.** Batch B: Bio **SGD Dr.** Batch C: Phy **SGD Dr.**		**Emb-L4** Development of Tongue **Dr.**
Friday 05/04/024	**Pak Studies** Allahbad Adress of Doctor Allama Muhammad Iqbal & General Election of 1937 **Mr.**	**09:00 to 11:00 am** **SGDs:** Batch A: Phy **SGD Dr.** Batch B: Anat **SGD Dr.** Batch C: Bio **SGD Dr.**		**SGDs:** Batch A: Bio **SGD Dr.** Batch B: Phy **SGD Dr.** Batch C: Anat **SGD Dr.**		**SDL** (SLRC/Library)

SWAT MEDICAL COLLEGE

DEPARTMENT OF MEDICAL EDUCATION

TIME TABLE FOR NEUROSCIENCES 1B MODULE (2nd Year MBBS) SESSION 2023-24

WEEK-4

THEME: 4 Cleft Palate/ THEME:5 Diplopia

Days	8:00 to 9:00 am	09:00 to 10:00 am	10:00 to 11:00 am	11:00am to 1:00 pm			1:30 to 2:30 pm
Monday 22/04/024	**Histo-L3** Submandibular glands **Dr.**	**Emb-L5** Development of Palate **Dr.**	**Histo-L4** Sublingual glands **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Phy **P Dr**. Batch B: Histo **P** Dr. Batch C: **Model Dissection Dr.**			**G. Anat-L24** Extra-cranial course of CN IX, XXI, XII **Dr.**
Tuesday 23/04/24	**Pediatric Surgery-L1** Cleft Palate **Dr.**	**G. Anat-L25** Bony Orbit **Dr.**	**G. Anat-L26** Eye Ball **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: **Model Dissection Dr.** Batch B: Phy **P Dr.** Batch C: Histo **P Dr.**			**Physio-L3** Physical principles of optics **Dr.**
Wednesday 24/04/24	**Emb-L6** Development of the Eye **Dr.**	**Physio-L4** Optics of the eye **Dr.**	**G. Anat-L27** Extra cranial course of CN III, IV, VI **Dr.**	**PRACTICALS/ MODEL DISSECTION:** Batch A: Histo **P Dr.** Batch B: **Model Dissection Dr.** Batch C: Phy **P Dr.**			**Physio-L5** Fluid system of the Eye- Intraocular fluid **Dr.**
Thursday 25/04/24	**Histo-L5** Eye **Dr.**	**Physio-L6** Structural elements of the retina **Dr.**	**Research -L2** **Prof. Dr.**	**11:00am to 12:00 pm** **Physio-L7** Photochemistry of vision **Dr.**	**12:00pm to 1:00 pm** **Physio-L8** Color vision **Dr.**	**PRAYERS BREAK**	**PRIME-L3** **Dr.**
Friday 26/04/24	**Pak Studies** Pakistan Resolution 1940 & General Election of 1946 **Mr.**	**Physio-L9** Neural functions of the retina **Dr.**	**Physio-L10** Visual pathways **Dr.**	**Physio-L11** Eye movement and their control **Dr.**	**SDL** (SLRC/Library)		**Physio-L12** Autonomic control of accommodation and pupillary aperture **Dr.**

SWAT MEDICAL COLLEGE

DEPARTMENT OF MEDICAL EDUCATION

TIME TABLE FOR NEUROSCIENCES 1B MODULE (2nd Year MBBS) SESSION 2023-24

WEEK-5

THEME:5 Diplopia /THEME:6 Deafness

Days	8:00 to 9:00 am	09:00 to 10:00 am	10:00 am to 11:00 am	11:00am to 1:00 pm		1:30 to 2:30 pm
Monday 29/04/24	**C. Med-L1** Prevention of Blindness **Dr.**	**G. Med-L2** Ocular Nerve Palsies **Dr.**	**Ophthalmology-L1** Blindness **Dr.**	**PRACTICALS/ Model Dissection** Batch A: Phy **P Dr**. Batch B: Histo **P Dr.** Batch C: **Model Dissection Dr.**	**PRAYERS**	**SDL** (SLRC/Library)
Tuesday 30/04/24	**G. Anat-L28** External and middle ear **Dr.**	**G. Anat-L29** Inner ear **Dr.**	**Emb-L7** Development of the Ears **Dr.**	**PRACTICALS** Batch A: **Model Dissection Dr.** Batch B: Phy **P Dr.** Batch C: Histo **P Dr.**		**Physio-L13** Tympanic membrane and the ossicular system **Dr.**
Wednesday 01/05//021	**PUBLIC HOLIDAY**					
Thursday 02/05//021	**Physio-L14** Cochlea **Dr.**	**Physio-L15** Auditory nervous pathways **Dr.**	**Physio-L16** Vestibular sensations and maintenance of equilibrium **Dr.**	**PRACTICALS** Batch A: Histo **P Dr.** Batch B: **Model Dissection Dr.** Batch C: Phy **P Dr.**	**BREAK**	**ENT-L3** Hearing Loss **Dr.**
Friday 03/05//021	**SELF-STUDY SDL/LIBRARY**					

For inquiry and troubleshooting

Dr. Amanullah

Assistant Professor Physiology Department

Swat Medical College Saidu Sharif Swat.

Cell No. 03447449100

amanfmj@gmail.com

Module Evaluation Form

MBBS Year: _____ Block: _____ Module: _____

Date: _____

1. (Unsatisfactory) 2 (Fair) 3 (Satisfactory) 4 (Good) 5 (Excellent)

Category: Course Contents

No.	Question	1	2	3	4	5
1	To what extent did the course contents align with the stated learning objectives of the module?					
2	How clear and comprehensive were the course materials provided in this module?					
3	Were the core topics adequately covered, ensuring a well-rounded understanding of the subject?					
4	How current and up-to-date were the course contents in reflecting recent advancements?					
5	Did the module incorporate real-world applications and case studies effectively?					
	Category: Learning Resources					
6	Were the learning resources (e.g., textbooks, online materials, laboratory facilities) readily available and easily accessible?					
7	How helpful were additional learning resources such as supplementary readings or multimedia content?					
8	Did the module offer adequate support for research and independent study?					
9	Were digital resources and online platforms effectively utilized to enhance the learning experience?					
10	Were there sufficient opportunities for hands-on practice and practical application of knowledge?					
	Category: Teaching Methods					
11	How well did instructors engage with students and create a supportive learning environment?					
12	Were diverse teaching methods (e.g., lectures, group discussions, simulations) effectively employed?					
13	How responsive were instructors to questions, concerns, and feedback from students?					
14	To what extent did instructors provide timely and constructive feedback on assignments and assessments?					
15	Were opportunities for collaborative learning and peer-to-peer interactions encouraged and facilitated?					
No.	**Category: Engagement and Motivation**					
16	To what extent did the module use real-world examples and practical applications to engage students?					
17	How well were active learning techniques (e.g., problem-solving, case studies) integrated into the curriculum?					

18	Did the module provide opportunities for students to pursue their individual interests within the subject matter?					
19	Were assessments designed to challenge and motivate students to excel in their studies?					
Category: Inclusivity and Diversity						
20	How well did the module accommodate different learning styles and preferences among students?					
21	Were efforts made to include diverse perspectives, cultures, and backgrounds in the curriculum?					
22	How effectively were accommodations provided for students with varying levels of prior knowledge?					
	Category: Overall					
No.	**Question**	**1 (Very Poor)**	**2 (Poor)**	**3 (Fair)**	**4 (Good)**	**5 (Excellent)**
23	How would you rate the overall quality of this module?					

Students Diary/Notes

S.NO	DATE	TASK	PENDING/COMPLETED	COMMENTS

PROGRESS:_____ ACHIEVMENT: _____