

# STUDY GUIDE FOR SURGERY AND ALLIED FOR MBBS STUDENTS



LAHORE MEDICAL AND DENTAL COLLEGE
STUDY GUIDE, Department of Surgery 2024

### **CONTENT:**

S. No		<u>Page</u>
		no.
1.	Departmental Faculty & Staff Hierarchy (with pictures)/Plan (for faculty	<u>03</u>
	name, designation, & qualification to be included)	
2.	Introduction/ Rationale of subject	<u>09</u>
a.	Level of student year MBBS	<u>09</u>
b.	Duration of session: start month year end month year	<u>09</u>
3.	Study hours/Duration of course	<u>10</u>
4.	Learning outcome of subject	<u>13</u>
5.	Essential skills to be acquired	<u>14</u>
6.	Content/Syllabus (PMDC/UHS)	<u>15</u>
7.	Table of Specifications	<u>21</u>
a.	Paper I	<u>21</u>
b.	Paper II	<u>23</u>
8.	Teaching and Learning Methodologies (Instructional Strategies)	<u>27</u>
9.	Learning resources	<u>27</u>
10.	Assessment methods	<u>28</u>
11.	Formative and summative exam rules and regulations	<u>28</u>
12.	Schedule/ Timetable	<u>29</u>
13.	Planner/Academic Calender	<u>32</u>
14.	Counselling	<u>46</u>
a.	Career guidance	<u>46</u>
b.	Psychological counselling	46

### **LIST OF FACULTY MEMBERS OF GENERAL SURGERY**

Dr. Hasnat Ahmad Butt

MBBS, FCPS

Professor of Surgery &

Head of Surgery Department

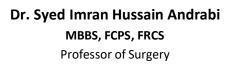


**Dr. Saquib Zahoor MBBS, FCPS**Professor of Surgery



Dr. Zahid Mahmood MBBS, FCPS Professor of Surgery







**Dr. Shaukat Rabbani MBBS, FCPS**Professor of Surgery



Dr. Wasif Majeed Chaudhry
MBBS, FCPS, MHPE
Professor of Surgery



**Dr. Sidra Shoaib Qureshi MBBS, FCPS**Associate Professor of Surgery



**Dr. Roh ul ain MBBS, FCPS**Assistant Professor of Surgery

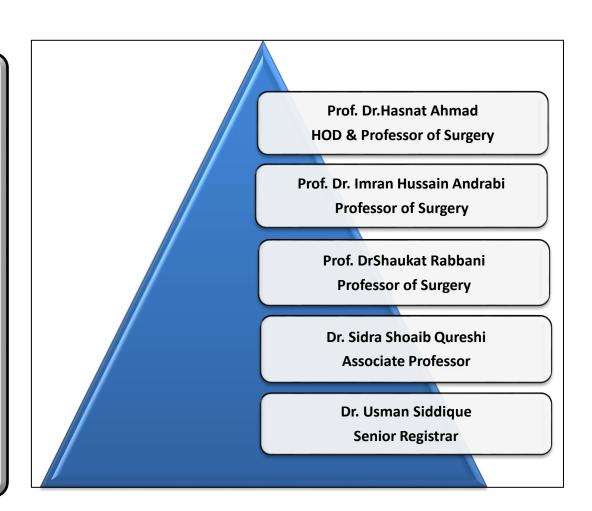


# HIERARCHY PLAN

**Head of Department** 

Prof. Dr. Hasnat Ahmad Butt

# SURGICAL UNIT 1



Professor Dr. Saqib Zahoor **Professor of Surgery** Professor Dr. Zahid Mahmood **Professor of surgery Dr. Wasif Majeed Chaudhary Professor of Surgery** Dr. Ruh-ul ain **Associate Professor Dr.Zubair Fayyaz Senior Registrar** Dr.Afza Saleem **Senior Registrar** Dr. Siddique Zeeshan **Senior Registrar** Dr. Anza Niazi **Senior Registrar** 

# ANAESTHESIA

# Dr. Leena Aziz HOD & Professor of Anaesthesia Dr. Shahid Rasool Dar Assisstant Professor Dr. Kashif Hussain Senior Registrar Dr. Waseem Younis Senior Registrar

# RADIOLOGY

Prof. Javed Asghar
HOD & Professor of Radiology

Prof. Dr. Khalid Farooq
Professor of Radiology

. Dr. Wajeeha Imran Andrabi
Assisstant Professor

Dr. Shazia Aleem
Senior Registrar

Dr. Nida Rauf
Senior Registrar

Dr. Hamid Zulfiqar
Senior Registrar

Dr. Shayan R. Khawaja
Consultant Radiologist

### **INTRODUCTION**

Medical education is a life-long process and MBBS curriculum is a part of the continuum of education from pre-medical education, MBBS, proceeding to house job, and post-graduation. PM&DC outlines the guiding principles for undergraduate medical curriculum and has defined the generic competencies and desired outcomes for a medical graduate to provide optimal health care, leading to better health outcomes for patients and societies. These generic competencies set the standards of care for all physicians and form a part of the identity of a doctor. Each competency describes a core ability of a competent physician. This study guide will give an insight to the students about all these competencies and how to plan their educational activities in the subject of surgery for the three years period.

### **TARGET AUDIENCE**

1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year MBBS students(MBBS)

### **Duration of session**

3rd year: February 2024- OCTOBER 2024

4th year: MARCH 2024- NOVEMBER 2024

5<sup>th</sup> year: APRIL 2024- DECEMBER 2024

### **DURATION OF COURSE**

Three years (total 600 hours including specialties)

### Total hours in 3<sup>rd</sup> year MBBS = 69 hours

**LECTURES** 

23 LEC/36 WEEKS — 19 HOURS

**CLINICAL WARD HOURS** 

Morning: 22 CLASSES/ BATCH 50 HOURS

### Total hours in 4<sup>th</sup> year MBBS = 152 HOURS

**LECTURES** 

2 Lecture/week/59 lectures — 49 HOURS

**CLINICAL WARD HOURS** 

Morning: 28 classes/7 Week: 70 HOURS

EVENING: 4 hours /4 days/ week for 2 weeks \_\_\_\_\_ 32 HOURS

CPC →1 HOUR

### Total hours in General Surgery 5<sup>th</sup> year MBBS = 376 HOURS

**LECTURES** 

4 Lecture/week/31 Weeks 103 HOURS

**CLINICAL WARD HOURS** 

Morning: 12 Weeks/Per batch/ 4 hrs per day — 192 HOURS

EVENING: 4 hours /4 days/ 5 classes per week for 4 weeks — 80 HOURS

CPC

1CPC /36 WEEKS — ~ 1HOUR

### Total hours in Anaesthesia 5<sup>th</sup> & 4<sup>th</sup> year MBBS = 56 HOURS

5<sup>th</sup> year

**LECTURES** 

8 Lecture /36 Weeks/50 min — 07 HOURS

**CLINICAL WARD HOURS** 

Morning: 3 CLASSES/4 hours per day/ 12 week — 12 HOURS Evening: 5 CLASSES/4 hours per day/ 1 week — 20 HOURS

CPC

1 CPC /36 WEEKS ~ 1HOUR

4<sup>th</sup> year

Evening: 4 CLASSES/4 hours per day/ 1 week — 16 HOURS

### Total hours in Critical 5<sup>th</sup> & 4<sup>th</sup> year MBBS = 52 Hours

5<sup>th</sup> year

Evening: 5 CLASSES/ 1 week / Each class,4 hours /day — 20 Hours

4th year

Evening: 8 CLASSES/4 hrs per day/ 2 weeks \_\_\_\_\_ 32 HOURS

### Total hours in Orthopedics 5<sup>th</sup> year MBBS = 103 Hours

**LECTURES** 

1 Lecture/week/36 Weeks/50 min → 30 HOURS

### **CLINICAL WARD HOURS**

Morning: 3 classes/12 Weeks / 4 hrs per day 12 HOURS

EVENING: 4 hours /4 days/ 5 classes per week for 3 weeks 60 HOURS

CPC

1CPC /36 WEEKS — ~ 1HOUR

### Total hours in Urology 5<sup>th</sup> year MBBS = 75 Hours

### **LECTURES**

1 Lecture/week/36 Weeks/50 min — 30 HOURS

### **CLINICAL WARD HOURS**

Morning: 6 classes/12 Weeks / 4 hrs per day 24 HOURS

EVENING: 4 hours /4 days/ 5 classes per week for 1 week 20 HOURS

CPC

1CPC /36 WEEKS ~ 1HOUR

### **Total hours in Plastic Surgery MBBS = 76 Hours**

LECTURES

3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> year

### **Total hours in Neuro Surgery MBBS = 71 Hours**

**LECTURES** 

4<sup>th</sup> year

Morning lectures: 8 lectures/50 min/year \_\_\_\_\_\_7 hours

**CLINICAL WARD HOURS** 

3<sup>rd</sup> year

Evening: 4hrs/ day for 11 days \_\_\_\_\_ 44 hours

4<sup>th</sup> year

Evening: 4hrs/ day /1 week → 20 hours

### First year MBBS

- Gowning gloving
- Lymph node examination
- Arterial system examoination
- Trauma
- Pneumothorax and pleuritis

Lectures and CSF according to module.

### **Second year MBBS**

Head & Neck

Thyroid

Lectures and CSF according to module.

### **LEARNING OUTCOMES** (knowledge, skills, attitude)

### By the end of this academic session the students should be able,

- 1) To acquire specific knowledge, essential skills and appropriate attitude towards the human body
- 2) To become problem solvers, dealing effectively with familiar and unfamiliar problems
- 3) To become lifelong learners
- 4) To direct their own learning and evaluate this activity
- 5) To be able to reason critically and make justifiable decisions regarding patient management
- 6) To practice evidence-based medicine
- 7) To always ensure patient safety
- 8) To ensure compliance with the legal system as it impacts health care and the PM&DC regulations
- 9) To adopt a multidisciplinary approach for health promoting interventions
- 10) Medical graduates should be able to demonstrate professional values of self and professional accountability, honesty, probity, and ethics
- 11) Medical and dental graduates are expected to demonstrate exemplary professional conduct
- 12) To be able to understand the pathogenesis of specific diseases
- 13) To be able to take a focused history and identify the patient's risk factors related to the disease process
- 14) To be able to perform a physical examination on a patient, to diagnose specific surgical diseases and differentiate from other systems
- 15) To formulate a provisional diagnosis with justification, and the likely differential diagnoses
- 16) To be able to select appropriate biochemical investigations and interpret their reports to confirm the diagnosis
- 17) To be able to select specific radiological investigations for specific diseases
- 18) To be able to apply evidence-based surgical concepts for the surgical treatment of different diseases
- 19) To be able to describe the required surgical procedures for different diseases
- 20) List indications and advantages of modern techniques

### Essential Skills to be acquired

- 1. Provide First Aid: Resuscitation (ABC) of polytrauma, CPR.
- 2. Collect samples of blood, urine, stool, sputum, pus swab etc.
- 3. Insert Naso-gastric tube, have observed chest intubation and paracentesis.
- 4. Do IV cannulation, have observed CV-line insertion and cut- down of veins.
- 5. Catheterize male and female patients.
- 6. Prepare the patient for and know the procedure of doing X-Ray chest, abdomen, KUB, bones, IVU, barium studies, ultrasound and other imaging investigations.
- 7. Principles of pre-operative preparations, sterilization/disinfection techniques.
- 8. Principles of wound care, skin suturing and suture removal, incision, tissue lumps, needle biopsies, aspiration of localized fluids, etc.
- 9. Have observed common surgical procedures, treatment of fracture/ dislocation and methods of general / local anaesthesia.
- 10. Apply bandage and splint/pop cast to the patient's limbs.
- 11. Have observed instillation of chemotherapy and principles of radiotherapy.

### **SYLLABUS**

The course outline is as follows:

### **GENERAL SURGERY**

### **Principles of Surgery**

- Metabolic response to Surgical trauma and homeostasis
- Pathophysiology and Management of Shock
- Fluid, electrolyte and acid base balance
- Haemorrhage, coagulopathy and Blood/products Transfusion and its complications
- Nutrition of surgical patients
- Wounds, wound repair and its complications
- Investigation and treatment of common Infections and Parasitic Infestations of Surgical Importance including clinical therapeutics
- Gas Gangrene and Tetanus
- Special Infections related to surgery
- Tuberculosis
- Principles in the Management of common Skin and Soft Tissue Problems: Ulcers, abscesses, inflammations, cysts, sinuses & fistulae, swellings, embedded foreign Bodies, minor Injuries and benign and malignant conditions
- Principles of oncologic therapy and palliation
- Principles of organ transplantation and its ethics and implications
- Surgical Audit
- Surgical ethics

### Trauma

- Pre-hospital care
- Triage
- Primary survey, ABCDE
- Primary Survey of Polytrauma patients with airway difficulty and circulatory instability
- External Haemorrhage
- Airway management
- Tension Pneumothorax
- Cardiac Tamponade

### **Head injuries**

- Resuscitation
- Management of the Patient with Head Injury
- Management of an Unconscious patient due to Head Injury and Glasgow Coma Scale
- Skull fractures

- Intracranial pressure
- Intracranial hemorrhage
- Cervical spine injury
- Spinal cord trauma
- Blunt and Penetrating Injuries of chest and their Complications including haemothorax, pneumothorax, resuscitation, chest drains
- Principles of management of (blunt and penetrating), liver/spleen, pelvic and urogenital trauma
- Principles of management of fractures / dislocation
- Focused Abdominal Sonographic Assessment for trauma (FAST)
- Peripheral nerve Injuries
- Amputations

### Lump/swelling

- Congenital
- Traumatic
- Inflammatory
- Neoplastic

### Neck swelling

- Lymphadenopathy (Inflammatory), acute and chronic
- Chronic granulomatous
- Neoplastic benign/malignant
- Lymphatic leukemia
- Autoimmune disorders
- Lipoma
- Neurofibroma
- Sebaceous cyst
- Sublingual dermoid
- Thyroglossal cyst
- Salivary Glands: calculi, enlargement (benign/malignant)
- Thyroid gland enlargement
- Branchial cysts, sinus or fistula
- Cystic hygroma
- Carotid artery tumor

### Plastic and reconstructive surgery

- Principles of skin coverage
- Common benign and malignant skin lesions

- Burns, principles of management
- Cleft lip and palate
- Epispadius
- Hypospadius

### **Principles of Anaesthesia**

- Pre-operative assessment of patients and pre-medication
- Local Anaesthesia
- Local Anaesthetic agents (Pharmacology)
- Regional Anaesthesia (Spinal and Epidural)
- Intravenous Anaesthetic agents
- Muscle Relaxants
- Inhalational Anaesthetic agents
- Complications of Anaesthesia
- Perioperative Management
- Recovery from Anaesthesia
- Pain Management and postoperative care
- ICU Monitoring

### Neurosurgery

- Raised intracranial pressure/ hydrocephalus
- Introduction to intracranial infections
- Introduction to intracranial tumors
- Peripheral nerve Injuries

### Paediatric surgery

- Pediatrics Tumors
- Neonatal surgical problems
- Tracheoesophageal malformations
- Pyloric stenosis
- Hirschsprung's disease
- Imperforate anus
- Intestinal obstruction
- Intussusception
- Foreign body (Aspirated or Ingested)

### SYSTEMIC SURGERY

### Head, face and neck

- 1. Developmental abnormalities of face, palate, lips.
- 2. Principles of management of head injuries and its complications.
- 3. Oral cavity including tongue.
- 4. Diseases of salivary glands (Inflammation, Calculus, Tumours)
- 5. Neck lumps including lymph nodes, thyroid and parathyroid

### **Breast**

- 1. Diseases of the breast, nipple and areola
- 2. Benign and malignant tumours.

### Chest wall & thorax

- 1. Blunt & penetrating injuries and their complications.
- 2. Lung abscess and empyema thoracis.
- 3. Tumors and cysts in the lungs.

### **Gastro Intestinal Tract**

Diseases causing oesophageal obstruction.

Peptic ulcer disease & its complications.

Tumours of stomach.

conditions causing acute abdomen

Conditions causing chronic abdomen including malignant lesions of small and large bowel Ano-rectal and peri-anal conditions requiring surgery.

### Abdominal, Pelvic and Genital Trauma and Hernia

- 1. Principles in management of abdominal pelvic and urogenital trauma.
- 2. Inguinal/Inguinoscrotal and femoral hernia.
- 3. Epigastric hernia/umbilical/ para-umbilical hernia.
- 4. Incisional hernia.

### Liver

- 1. Trauma.
- 2. Obstructive jaundice.
- 3. Liver abscess.
- 4. Hydatid cyst.
- 5. Malignancy (Hepatoma & secondaries)

### Gall Bladder

1. Acute and chronic cholecystitis.

- 2. Cholelithiasis and its complications.
- 3. Tumors

### **Pancreas**

- 1. Acute, relapsing and chronic pancreatitis.
- 2. Pancreatic masses including cysts
- 3. Benign and malignant neoplasia.

### Spleen

- 1. Trauma
- 2. Surgical aspects of spleen

### **Urinary Tract**

- 1. Common congenital anomalies.
- 2. Infection & its sequelae.
- 3. Calculus disease and its sequelae.
- 4. Bladder lesions.
- 5. Enlarged prostate.
- 6. Urogenital trauma.
- 7. Neoplasms of kidney and urinary tract.

### External Genitalia, Male and Female

- 1. Developmental abnormalities.
- 2. Common pelvic conditions

### Scrotal and testicular lesions

- 1. Scrotal swelling.
- 2. Testicular swelling.

### Skin & Soft Tissues

- 1. Common benign and malignant skin lesions.
- 2. Wounds/ulcers/abscesses/sinuses/fistulae.
- 3. Soft tissue lumps.

### Vascular and Nerve Disorders

- 1. Vascular afflictions and limb ischaemia
- 2. Varicosities
- 3. Deep venous thrombosis.
- 4. Peripheral nerve injuries

### Radiology

### Orthopedics

Applied basic orthopaedics
Congenital and developmental diseases
Bone & joint infection
Metabolic bone disease
Neuro muscular disorders
Bone Tumors
Neck pain, low back pain
Arthritis
Soft Tissue Injury
Deformity
Fractures

### **Table of Specifications**

# MBBS FINAL PROFESSIONAL SURGERY PAPER-I (MULTIPLE CHOICE QUESTIONS)

50 MCQs of one mark each

Time allowed 01 hour

Sr. No	Topic	No of Questions
1	Surgical Anatomy	3
2	Wounds, tissue repair and scars	3
3	Accident and emergency Surgery, Warfare Injuries	3
4	Fluid, electrolytes and Acid base Balance	3
5	Blood Transfusion and Shock	3
6	Nutrition	3
7	Wound Infection	3
8	Special Infection, AIDS, Sterile Precautions	3
9	Tumors, Cysts, Ulcers and Sinuses	3
10	Burns	3
11	Skin Lesions; Skin Grafts and Flaps	3
12	Arterial Disorders	3
13	Venous Disorders	3
14	Lymphatic Disorders	3
15	Principles of Anaesthesia and Pain Management	3
16	Principles of Radiology	3
17	Principles of radiotherapy and Chemotherapy	3

### **SURGERY PAPER-I (SHORT CHOICE QUESTIONS)**

### **Table of Specification**

10 SEQs of five marks each

Time allowed 02 hour

Question No	Content
1	Surgical Anatomy
2	Wounds, tissue repair and scars, Accident and emergency Surgery, Warfare Injuries
3	Fluid, electrolytes and Acid base Balance; Blood Transfusion and Shock and Shock
4	Nutrition
5	Wound Infection, Special Infection, AIDS, Sterile Precautions
6	Tumors, Cysts, Ulcers and Sinuses, Burns, Skin Lesions; Skin Grafts and Flaps
7	Arterial, Venous and Lymphatic Disorders
8	Principles of Anaesthesia and Pain Management
9	Principles of Radiology
10	Principles of radiotherapy and Chemotherapy

### **SURGERY PAPER-II (MULTIPLE CHOICE QUESTIONS)**

### **Table of Specification**

60 MCQs of one mark each

Time allowed 01 hour and 05 minutes

1. Musculoskeletal System (6)		
S. No	Contents	No. of Questions
1	Fractures and Dislocations General Principles	1
2	Fractures and Dislocations Upper Limb	1
3	Fractures and Dislocations Lower Limb	1
4	Other diseases of Bones, Joints and Related tissues	2
5	Hand and foot	1

2. Upper	2. Upper GIT (14)		
S. No	Contents	No. of Questions	
6	Oesophagus	2	
7	Stomach and Duodenum	2	
8	Liver	2	
9	Spleen	2	
10	Gall Bladder and Bile Ducts	2	
11	Pancreas	2	
12	Peritoneum, Omentum, Mesentery and Retroperitoneal Space	2	

3. Lower	3. Lower GIT (12)		
S. No	Contents	No. of Questions	
13	Small and Large Intestine	2	
14	Intestinal obstruction	2	
15	Vermiform Appendix	2	
16	Rectum	2	
17	Anus and Anal Canal	2	

18	Hernia, Umbilicus and Abdominal Wall	2

4. Uroge	4. Urogenital System (10)		
S. No	Contents	No. of Questions	
19	Kidney and Ureter	2	
20	Urinary Bladder	2	
21	Prostate and Seminal Vessels	2	
22	Urethra and Penis	2	
23	Testes and Scrotum	2	

5. Head and Neck(4)		
S. No	Contents	No. of Questions
24	Thyroid Gland and Thyroglossal Tract	1
25	Parathyroid and Adrenal Glands	1
26	Slivery Glands	1
27	Others	2

6. Thorax (4)		
S. No	Contents	No. of Questions
28	Chest trauma	2
29	Others	2

7. breast (4)		
S. No	Contents	No. of Questions
30	Malignant Diseases	2
31	Benign Disease	2

8. Nervous System (2)		
S. No	Contents	No. of Questions
32	Head, Spine and Nerve Injuries	1
33	Others	1

9. Heart and Great vessels (2)				
S. No	Contents	No. of Questions		
34	Heart	1		
35	Great Vessels	2		

10. Orodontal (2)				
S. No	Contents	No. of Questions		
36	Maxillofacial Injuries	1		
37	Others	1		

### **SURGERY PAPER-II (SHORT CHOICE QUESTIONS)**

### **Table of Specification**

### 13 SEQs of five marks each

Time allowed 02 hour

Question No	Content
1	Musculoskeletal System
2	Upper GIT
3	Lower GIT
4	Urogenital System
5	Head and Neck
6	Thorax
7	Breast
8	Nervous System
9	Heart and Great Vessels
10	Orodontal

### **LEARNING & TEACHING METHODOLOGIES FOR SURGERY AND ALLIED**

- 1) Interactive Lectures
- 2) Tutorials
- 3) Case based learning (CBL)
- 4) Essential Skills to be learned in the skills lab
- 5) Power point presentations by students
- 6) Small group discussions
- 7) Teaching of surgical procedures in Operation theatres
- 8) Clinical ward rotations
- 9) CPC's using modern audio-visual techniques, distant learning using electronic devices and current Information technology facilities
- 10) Journal Club meetings
- 11) Self-directed learning is the most vital part to solve problematic cases, go through different learning resources and discuss with peers and the faculty to clarify difficult concepts

### **LEARNING RESOURCES**

### Recommended books

- 1) Bailey & Love's Short Practice of Surgery 28th Edition
- 2) General surgery (lecture Notes Series) by Harold Ellis, Roy Calne, Chris Wastson
- 3) **Schwartz's Principles of Surgery** by F. Charles Brunicardi, Dana K. Anderson, Timothy R. Billiar and David L. Dunn 11<sup>th</sup> edition 2019
- 4) The Washington Manual of Surgery 7th edition
- 5) Current Surgical Practice: by Norman L. Browse, Alan G. Johnson and Tom. Vol.6
- 6) **Browse's Introduction to symptoms and signs of surgical disease**, 6<sup>th</sup> edition published in 2021 CRC Press Taylor & Francis Group. Kevin G Burnand John Black, Steven A Corbett and William EG Thomas.
- 7) Hamilton Bailey's Physical Signs: Demonstrations of Physical Signs in Clinical Surgery, 19th Edition
- 8) Clinical Skills for Undergraduates by Abdul Majeed Ch. and Aamer Zaman Khan
- 9) Online Journals and Reading Materials through HEC Digital Library Facility.

### Technologies to be used for Learning

- 1) Textbooks are the most important part of student learning for this subject
- 2) Hands-on activities and practical sessions to enhance the learning.
- 3) Skills lab will be used for simulated learning of the basic skills related to the gastrointestinal system
- 4) Videos from different web portals to familiarize the students with the procedures and protocols.
- 5) Computer and Internet resources are essential to gather the latest information about a specific disease.

### **ASSESSMENT METHODOLOGY**

### **Formative**

**Theory,** Single best multiple-choice questions and SEQs test monthly

**Clinical ward test,** comprising of one long case (70 marks) and two short cases (100 marks) and one OSCE comprising of 11 stations (55 marks), 25 % marks contributed by ward attendance Total marks= 250

### Summative UHS examination (to be held at the end of 5<sup>th</sup> year MBBS)

<u>Theory Paper I:</u> General Surgery, Surgical Anatomy, Principles of Anaesthesia, Principles of Radiology, Principles of Radiotherapy and Chemotherapy.

<u>Theory Paper II:</u> Systematic and Operative Surgery: Musculoskeletal system, GIT, Renal system, Male and female reproductive system, Head and Neck, Thorax, Breast, Nervous system, Cardiovascular System, Orthopaedics and Traumatology

### **Summative examination details**

### Surgery including Orthopaedic & Anaesthesia (Theory)

**Paper-I** (65 single best answer multiple choice questions and 10 Short essay questions= 100 marks

**Paper II** (60 single best answer multiple choice questions and 13 Short essay questions)= 125marks

Internal evaluation = 25 marks

Total= 250 marks

### Surgery including Orthopaedic & Anaesthesia (Clinical/Practical exam)

Clinical exam comprising of one long case (70 marks) and two short cases (100 marks) = 170 marks

OSCE= 55 Marks

Internal Evaluation = 25 Marks

Total= 250 marks

### **ATTENDANCE REQUIREMENT FOR SURGERY AND ALLIED**

- 1) Students are expected to attend all scheduled teaching sessions and examinations
- 2) Attendance in lectures, tutorials, and wards is mandatory. Absence from these sessions will make the students ineligible to sit the final summative assessment.
- 3) A minimum of 75 % attendance in the lectures, wards is mandatory to appear in the summative UHS examination
- 4) Attendance will be recorded through a log-in/log-out biometrics system
- 5) Absence due to illness must be certified appropriately by the General Physician

### **DEPARTMENTAL TIME TABLES**

### 3<sup>RD</sup> YEAR, MBBS. 2024

Day & Time	09:40	00 a.m. to 0 a.m.	09:40 a.m. to 09:55 a.m.	09:55 a.m. to 12:10 p.m.		12:10 a.m. to 12:25 noon	12:25 Noon to 12:40 p.m.	12:40 p.m. to 01:30 p.m.	01:30 p.m. to 03:00 p.m.
Monday		orial		Clinical Ward					
Tuesday	08:00 a.m. to 08:45 a.m.	08:45 a.m. to 9:30 a.m.	TRAVEL TO GTTH	Clinical Wa batch	Clinical Ward / Skill Lab for one batch		BREAK		
Wednesday					Clinical Ward				
Thursday				:40 a.m. To :30 a.m.	10:30 a.m. to 11:00 a.m.	11:00 a.m. to 11:50 a.m.	11:50 a.m. to 12:40 noon		
					BREAK				
Friday				09:40 a.m. to 10:30 a.m.			0:00 a.m. to 10:45 a.m.	11:20 a.m. to 11:30 a.m.	11:30 a.m. to 01:00 p.m.
Tituay						Surgery Lecture The	eatre No.11	BREAK	

### 4<sup>TH</sup> YEAR, MBBS. 2024

DAYS	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:20 a.m.	10:20 a.m. to 11:10 a.m.	11:10 a.m. to 11:25 a.m.	11:25 a.n to 01:35 a.ı			35 p.m. to 10 p.m.	02:10 p.m. to 03:00 p.m.
MONDAY			Surgery-I Lecture Theater No. 7		HospitalWor (unit1,2)	k			
TUESDAY				TravelTime to GTTH	Hospital Wor (unit1,2)	·k	Travel Time to LMDC	Bre	
WEDNESDAY					Hospital Wor lab(unit1,2)	k /Skills	ne to LMI	Break &	
	08:00 am To 08:50 am	08:50 am To 09:40 am	09:40 am To 10:30 am	То	10:45 am To 01:35 pm		č		
THURSDAY	Surgery-II Lecture Theater No. 7			Travel Time to GTTH	Hospital Work(unit1,2	2)			
FRIDAY				10:30 am To 11:20 am	11:20 am To 12:10 pm	12:10 pn	n to (	01:00 p.m.	

### **5<sup>TH</sup> YEAR, MBBS. 2024**

Day	08:00 a.m. to 08:50 a.m.	08:50 a.m. to 09:40 a.m.	09:40 a.m. to 10:3 0 a.m.	10:30 a.m. to 11:00 a.m.	11:00 a.m. to 02:45 p.m.	02:45 p.m. to	03:00 p.m.
	Surgery II Lecture theatre 2				Hospital Work/ Skills lab(unit1,2)		
	Surgery I Lecture theatre 2			. 0	Hospital Work(unit1,2)		
Wednesday		Orthopedics Lecture theatre 2		Travel To GTTH & Break	Hospital Work(unit1,2)	to	Travel
Thursday	Surgery I / Radiology Lecture theatre 2				Hospital Work(unit1,2)		
		Urology		10:30 a.m. to	10:45 a.m to 12:45 p.m	12:45 p.m. to	01:00 p.m.
Friday	Surgery II / Anaesthesia	Lecture		10: 45 p.m.	Ward/SDL	Travel toLM	IDC
Titaly	Lecture theatre 2	theatre 2		Travel to GTTH	10:45 a.m to 11:55 a.m	11:55 am to 12:10 pm	12:10 pm to 01:00 pm
					Ward/SDL	Travel to LMDC	CPC Auditorium

### **ACADEMIC CALANDER**

# SURGICAL UNIT 1 3RD YEAR MBBS

Sr.#	Topic	SUB TOPIC	Bailey & Love's CHAPTER NO.
1	Surgical Anatomy	Submandibular gland, Thyroid gland, Breast, Abdomen, Stomach, Spleen, Hepatobiliary System, Appendix, Kidney, Inguinal Hernia, Femoral Hernia, Blood vessels, Testis	
2	Wounds, tissue repair and scars	Wound Healing, Wound Management, Wound Complications, Scars, Reconstruction	(3) Wound healing and tissue repair (4) Tissue engineering and regenerative therapies
	Accident and emergency Surgery, Warfare Injuries	Advanced Trauma Life Support (ATLS) Primary Surgery Definitive Care Plan (Tertiary care) Triage, Tension Pneumothorax Brain Injury Lumber Disc Herniation (Disc Prolapse)	<ul> <li>(26) Introduction to trauma</li> <li>(27) Early assessment and management of severe trauma</li> <li>(28) Traumatic brain injury</li> <li>(29) Torso and pelvic trauma</li> <li>(30) The neck and spine</li> <li>(31) Maxillofacial trauma</li> <li>(32) Extremity trauma</li> <li>(33) Disaster surgery</li> <li>(34) Conflict surgery</li> </ul>
4	Fluid, electrolytes and Acid base Balance	Gastric-Outlet Obstruction Fluid Therapy	(24) Postoperative care including perioperative optimization (25) Nutrition and fluid therapy (01) Metabolic response to injury
5	Blood Transfusion and Shock	Shock and its classification, Severity of Shock Hemorrhage and its Management, Hypovolemic (Hemorrhagic) Shock, Septic Shock, Obstructive Shock, Shock Monitoring, Indication of Blood Transfusion, Complications of Blood Transfusion Disseminated Intravascular Coagulation	(2) Shock, Haemorrhage and transfusion
6	Nutrition	Nutritional Assessment, Calculation of Nutritional Requirement, Enteral Feeding, Total Parenteral Nutrition (TPN)	(25) Nutrition and fluid therapy
7	Wound Infection	Aseptic Techniques & Sterilization, Surgical Site Infections (SSI), Abscess, Necrotizing Fasciitis Gas gangrene, Cellulitis, Carbuncle, Hidradenitis Suppurativa,	(05) Surgical infection

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		Osteomyelitis, Anorectal Abscess Tetanus, Human Immunodeficiency Virus (HIV),	(06) Tropical infections and infestations
8	Special Infection, AIDS, Sterile Precautions	Madura Foot (Mycetoma Pedis), Typhoid Bowel Perforation, Universal Precautions	
9	Tumours, Cysts, Ulcers and Sinuses	Pilonidal Sinus, Venous Ulcers (Gravitational Ulcer), Trophic Ulcers (Pressure Sores),	(03) Wound Healing & Tissue repair (05) Surgical infection
10	Burns	Classification of Burns, Assessment of Burns, Management of Burns, Complications of Burns Electrocution	(46) Burns
11	Skin Lesions; Skin Grafts and Flaps	Basal Cell Carcinoma (BCC, Rodent Ulcer) Squamous Cell Carcinoma (SCC), Malignant Melanoma	(45) Skin and subcutaneous tissue (47) Plastic and reconstructive surgery
12	Arterial Disorders	Chronic Lower Limb Ischemia, Acute Lower Limb Ischemia, Compartment Syndrome,	(61) Arterial disorders
13	Venous Disorders	Varicose Veins, Deep Venous Thrombosis (DVT),	(24) Post-operative care including perioperative optimization (62) Venous disorders
14	Lymphatic Disorders	Lymphoedema, Filariasis, Tuberculosis Lymphadenitis	(63) Lymphatic disorders
15	Principles of Anaesthesia and Pain Management	Pre-Op Evaluation & Management	(23) Anaesthesia and pain relief (24) Post-operative care including perioperative optimization
16	Principles of Radiology	Ultrasonography (USG), Conventional Radiography (X-Rays), Mammography Computerized Tomography (CT) Scanning Magnetic Resonance Imaging (MRI), Imaging in Acute Trunk Conditions, Nuclear Medicine	(08) Diagnostic Imaging
17	Principles of radiotherapy and Chemotherapy	Screening, Tumor Markers, Principles of Cancer Surgery, Principles of Chemotherapy, Principles of Radiotherapy, Principles of immunotherapy Principles of Hormonal Therapy, Tumor Board	(12) Principles of oncology

# 4<sup>TH</sup> YEAR, MBBS

	UPP				
TOPIC	SUB TOPIC	Bailey & Love's(CHAPTER)	Bailey & Love's (TOPIC)		
Oesophagus	Dysphagia Gastroesophageal Reflux Disease (GERD) Achalasia Esophageal Perforation Corrosive Injury Carcinoma Esophagus	(66) The oesophagus	<ol> <li>Anatomy, physiology, investigations</li> <li>GORD</li> <li>CA Oesophagus</li> <li>Motility disorders</li> <li>Oesophagus perforation &amp; corrosive intake</li> </ol>		
Stomach and Duodenum	Anatomy Bleeding Peptic ulcer Perforated Peptic Ulcer	(67) The stomach and duodenum (68) Bariatric & Metabolic surgery	<ol> <li>Anatomy, physiology, investigations</li> <li>CA stomach</li> <li>Bleeding peptic ulcer &amp; perforated peptic ulcers, gastric outlet obstruction</li> <li>Bariatric &amp; metabolic surgery</li> </ol>		
Liver	Amebic Liver Abscess Hydatid Liver Disease Variceal bleeding Ascending cholangitis	(69) The Liver	Anatomy, physiology, investigations     SOLs; tumors & hydatid disease     Portal hypertension & variceal bleeding     Liver infections     I. Ascending cholangitis     II. Liver abscess		
Spleen	Anatomy Splenectomy	(70) The spleen	Anatomy, physiology, investigations     Splenectomy indications &     procedure		
Gall Bladder and Bile Ducts	Anatomy Cholelithiasis (Gallstones) Cholecystitis Empyema of Gall Bladder Cholecystectomy Choledocholithiasis (CBD Stones) Acute Cholangitis	(71) The gallbladder and bile ducts	<ol> <li>Anatomy, physiology, investigations, congenital anomalies</li> <li>Gallstone disease &amp; its complications a. Biliary colic/Acute Cholecystitis b. Empyema gallbladder/gangrene c. Acute cholangitis</li> <li>Obstructive jaundice (CBD Stones, Strictures, tumours)</li> </ol>		
Pancreas	Anatomy Acute Pancreatitis Pancreatic Pseudocyst Pancreatic Carcinoma	(72) The pancreas	<ol> <li>Anatomy, physiology, investigations</li> <li>Acute pancreatitis &amp; pseudocyst</li> <li>CA pancreas &amp; chronic pancreatitis</li> </ol>		
Peritoneum, Omentum, Mesentery and Retroperitoneal Space	Acute Peritonitis	(65) The peritoneum, mesentery, greater omentum and retroperitoneal space	Anatomy, embryology, physiology of     a. Peritoneum     b. Mesentery     c. Retroperitoneum     d. Intraperitoneal collisions     Peritonitis (Acute, chronic)		

II-Lower GIT (17)

	LOWE! GIT (17)		
Small and Large Intestine	Ileoceacal (Intestinal) Tuberculosis Toxic Megacolon (Ulcerative Colitis UC) Crohn's Disease (CD) Meckel's Diverticulum Colorectal Carcinoma Ileostomy and Colostomy	(74) The small intestine (75) Inflammatory bowel disease (77) The large intestine	<ol> <li>Anatomy, physiology, investigations</li> <li>Crohn's disease, ulcerative colitis &amp; toxic megacolon</li> <li>Infective enteritis         <ul> <li>Typhoid</li> <li>T.B</li> </ul> </li> <li>CA colon</li> <li>Stomas &amp; their complications</li> </ol>
Intestinal obstruction	Adhesions Sigmoid Volvulus Intussusception	(73) Functional disorders of intestine (78) Intestinal obstruction	Motility disorders, pseudo obstruction & A dynamic obstruction     Dynamic intestinal obstruction
Vermiform Appendix	Anatomy Appendectomy Mass in right iliac Fossa	(76) The vermiform appendix	<ol> <li>Anatomy of appendix &amp; acute appendicitis</li> <li>Complications of appendicitis and tumors of appendix</li> </ol>
Rectum	Haemorrhoids (Piles)	(79) The rectum	<ol> <li>Anatomy, physiology, investigations</li> <li>Common rectal disease         <ul> <li>Prolapse, polyps, solitary rectal ulcer</li> <li>CA rectum</li> </ul> </li> </ol>
Anus and Anal Canal	Anal Fissure (Fissure-In-Ano) Anal Fistula (Fistula-In-Ano) Anorectal Abscess	(80) The anus and the anal canal	<ol> <li>Anatomy, physiology, investigations</li> <li>Anorectal abscess &amp; perianal fistulas</li> <li>Anal fissure &amp; Haemorrhoids</li> </ol>
Hernia, Umbilicus and Abdominal Wall	Anatomy of Inguinal Hernia Anatomy of Femoral Hernia Inguinal Hernia Herniotomy & Herniorraphy	(64) The abdominal wall, hernia and umbilicus	<ol> <li>Anatomy of:         <ul> <li>a. Abdominal wall</li> <li>b. Inguinal hernia</li> <li>c. Femoral hernia</li> </ul> </li> <li>Abdominal wall hernia's</li> <li>Inguinal &amp; femoral hernias</li> </ol>

### III- Head & Neck (12)

Thyroid Gland and Thyroglossal Tract	Anatomy Thyroglossal Duct Cysts & Fistulas Hyperthyroidism (Grave's Disease) & Goiter Thyroid Cancer	(55) The thyroid gland	1. 2. 3. 4. 5.	,
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	Thyroidectomy		
Parathyroid and Adrenal Glands	Anatomy of parathyroid gland	(56) The parathyroid gland (57) The adrenal glands and other abdominal endocrine disorders	Anatomy, physiology, investigations of parathyroid glands,     Hyperthyroidism     Tumours of adrenal cortex,     medulla & MEN
Slivery Glands	Anatomy of submandibular gland Minor Salivary Gland Cyst Ranula of sublingual Gland Sialolithiasis of Submandibular Gland Tumors of Submandibular Gland Disorders of Parotid Gland	(54) Disorders of the salivary glands	<ol> <li>Anatomy, physiology, investigations of parotid &amp; submandibular gland</li> <li>Diseases of salivary glands         <ul> <li>Retention cyst</li> <li>Sialolithiasis</li> </ul> </li> <li>Neoplasm salivary gland</li> <li>Parotidectomy &amp; submandibular gland excision</li> </ol>
Others	Metastatic Cervical Lymph Nodes Cystic Hygroma (Cavernous Lymphangioma) Tuberculosis Lymphadenitis Lymphadenopathy Chemodectoma (Carotid Body Tumour)	(52) The pharynx, larynx and neck	1. Diseases of neck (page 805)
	IV- Thorax (5)		
Chest Trauma	Tension Pneumothorax Hemithorax Cardiac (Pericardial) Tamponade Flail Chest Chest Intubation Thoracotomy Hemoptysis Lung Cancer	(60) The thorax	1. Anatomy, physiology of Investigations of thorax 2. Thoracic injury (page 379) a. Spontaneous pneumothorax, tension pneumothorax, flail chest, cardiac tamponade 3. Acute empyema thoracic, disorders of airway & lung abscess 4. Lung cancer & chest wall tumors
Others	Chest Cancer Acute Empyema Thoracic		5. Chest intubation, thoracotomy & VATS
	V- Breast (4)		,
Malignant Diseases of Breast	Anatomy Paget 's disease of Nipple Mastectomy Breast Reconstruction Surgery	(58) The breast	1. Anatomy, embryology of breast,
Benign Disease of Breast	Investigations of Breast Disease Mastalgia (Breast pain) Nipple Discharge Fibroadenoma Phyllodes Tumour Traumatic aft Necrosis Lactational Breast Abscess Gynaecomestatia		investigations for breast diseases  2. Carcinoma breast  3. Mastectomies & Reconstructive Surgery  4. Benign breast disease ANDI

	VI- Nervous		
	System (4)		
Head, Spine and Nerve Injuries	Basal Skull Fracture Brain Injuries Extradural (Epidural) Hematoma Subdural Hematoma Types of Nerve Injuries Median Nerve Injuries Redial Nerve Injuries Carpal Tunnel Syndrome	(28) Traumatic Brain Injury (48) Cranial neurosurgery (30) Neck & Spine with (32) Extremity Trauma	1. Head injury (chapter 28)
Others	Brainstem Death Brain Tumours Hydrocephalus Lumber Disc Herniation (Disc Prolapse)	Orthopaedics (37) The Spine	<ol> <li>Anatomy, Physiology (ICP)</li> <li>Hydrocephalus, brain abscess</li> <li>Brain tumors &amp; brain stem death</li> </ol>
	VII- Heart & Great		
Heart	Coronary Artery Disease Congenital Heart Disease Valvular Heart Disease	(59) Cardiac Surgery	<ol> <li>Cardiopulmonary bypass, indications, methods &amp; complications</li> <li>Coronary artery disease</li> <li>Congenital heart disease</li> <li>Valvular heart disease</li> </ol>
Great Vessels	Acute Lower Limb Ischemia Chronic Lower Limb Ischemia Compartment Syndrome Gangrene Abdominal Aortic Aneurysm (AAA) Aortic Dissection (Dissecting Aneurysm) Thoracic Outlet Syndrome Venous Ulcers (Gravitational Ulcer) Deep Venous Thrombosis (DVT)	(24) Post Op care including perioperative optimization (with Anaesthesia)  (61) Arterial disorders (62) Venous disorders	Abdominal aortic aneurysm
	VIII- Orodental (3)		
Maxillofacial Injuries	Squamous Cell Carcinoma of Oral Cavity Cleft Lip and palate Mandibular Fracture Ameloblastoma of Mandible	(31) Maxillofacial Trauma (50) Developmental abnormalities of the face, mouth and jaws; cleft lip and palate (53) Oral cavity cancer	<ol> <li>Maxillofacial injuries (mandibular &amp; maxillary)</li> <li>Oral cavity, tumours</li> <li>Developmental anomalies of face, mouth &amp; jaws, cleft lip and palate</li> </ol>

# FINAL YEAR, MBBS

	UPPER GI		
TOPIC	SUB TOPIC	Bailey & Love's(CHAPTER)	Bailey & Love's (TOPIC)
Oesophagus	Dysphagia Gastroesophageal Reflux Disease (GERD) Achalasia Esophageal Perforation Corrosive Injury Carcinoma Esophagus	(66) The oesophagus	<ul> <li>6. Anatomy, physiology, investigations</li> <li>7. GORD</li> <li>8. CA Oesophagus</li> <li>9. Motility disorders</li> <li>10. Oesophagus perforation &amp; corrosive intake</li> </ul>
Stomach and Duodenum	Anatomy Bleeding Peptic ulcer Perforated Peptic Ulcer	(67) The stomach and duodenum (68) Bariatric & Metabolic surgery	<ul> <li>5. Anatomy, physiology, investigations</li> <li>6. CA stomach</li> <li>7. Bleeding peptic ulcer &amp; perforated peptic ulcers, gastric outlet obstruction</li> <li>8. Bariatric &amp; metabolic surgery</li> </ul>
Liver	Amebic Liver Abscess Hydatid Liver Disease Variceal bleeding Ascending cholangitis	(69) The Liver	4. Anatomy, physiology, investigations 5. SOLs; tumors & hydatid disease 6. Portal hypertension & variceal bleeding Liver infections III. Ascending cholangitis IV. Liver abscess
Spleen	Anatomy Splenectomy	(70) The spleen	<ul><li>3. Anatomy, physiology, investigations</li><li>4. Splenectomy indications &amp; procedure</li></ul>
Gall Bladder and Bile Ducts	Anatomy Cholelithiasis (Gallstones) Cholecystitis Empyema of Gall Bladder Cholecystectomy Choledocholithiasis (CBD Stones) Acute Cholangitis	(71) The gallbladder and bile ducts	<ul> <li>4. Anatomy, physiology, investigations, congenital anomalies</li> <li>5. Gallstone disease &amp; its complications d. Biliary colic/Acute Cholecystitis e. Empyema gallbladder/gangrene f. Acute cholangitis</li> <li>6. Obstructive jaundice (CBD Stones, Strictures, tumours)</li> </ul>
Pancreas	Anatomy Acute Pancreatitis Pancreatic Pseudocyst Pancreatic Carcinoma	(72) The pancreas	<ul><li>4. Anatomy, physiology, investigations</li><li>5. Acute pancreatitis &amp; pseudocyst</li><li>6. CA pancreas &amp; chronic pancreatitis</li></ul>
Peritoneum, Omentum, Mesentery and Retroperitoneal Space	Acute Peritonitis	(65) The peritoneum, mesentery, greater omentum and retroperitoneal space	3. Anatomy, embryology, physiology of e. Peritoneum f. Mesentery g. Retroperitoneum h. Intraperitoneal collisions 4. Peritonitis (Acute, chronic)

II-Lower GIT (17)

	LOWER OFF (17)		
Small and Large Intestine	Ileoceacal (Intestinal) Tuberculosis Toxic Megacolon (Ulcerative Colitis UC) Crohn's Disease (CD) Meckel's Diverticulum Colorectal Carcinoma Ileostomy and Colostomy	(74) The small intestine (75) Inflammatory bowel disease (77) The large intestine	<ul> <li>6. Anatomy, physiology, investigations</li> <li>7. Crohn's disease, ulcerative colitis &amp; toxic megacolon</li> <li>8. Infective enteritis <ul> <li>c. Typhoid</li> <li>d. T.B</li> </ul> </li> <li>9. CA colon</li> <li>10. Stomas &amp; their complications</li> </ul>
Intestinal obstruction	Adhesions Sigmoid Volvulus Intussusception	(73) Functional disorders of intestine (78) Intestinal obstruction	Motility disorders, pseudo obstruction & A dynamic obstruction     Dynamic intestinal obstruction
Vermiform Appendix	Anatomy Appendectomy Mass in right iliac Fossa	(76) The vermiform appendix	<ul><li>3. Anatomy of appendix &amp; acute appendicitis</li><li>4. Complications of appendicitis and tumors of appendix</li></ul>
Rectum	Haemorrhoids (Piles)	(79) The rectum	<ul> <li>3. Anatomy, physiology, investigations</li> <li>4. Common rectal disease</li> <li>c. Prolapse, polyps, solitary rectal ulcer</li> <li>d. CA rectum</li> </ul>
Anus and Anal Canal	Anal Fissure (Fissure-In-Ano) Anal Fistula (Fistula-In-Ano) Anorectal Abscess	(80) The anus and the anal canal	<ul> <li>4. Anatomy, physiology, investigations</li> <li>5. Anorectal abscess &amp; perianal fistulas</li> <li>6. Anal fissure &amp; Haemorrhoids</li> </ul>
Hernia, Umbilicus and Abdominal Wall	Anatomy of Inguinal Hernia Anatomy of Femoral Hernia Inguinal Hernia Herniotomy & Herniorraphy	(64) The abdominal wall, hernia and umbilicus	<ul> <li>4. Anatomy of:</li> <li>d. Abdominal wall</li> <li>e. Inguinal hernia</li> <li>f. Femoral hernia</li> <li>5. Abdominal wall hernia's</li> <li>6. Inguinal &amp; femoral hernias</li> </ul>

### III- Head & Neck (12)

	Anatomy Thyroglossal Duct Cysts &		6.	Embryology, anatomy, physiology, investigations of thyroid glands
Thyroid Gland and Thyroglossal Tract	Fistulas Hyperthyroidism (Grave's Disease) & Goiter Thyroid Cancer	(55) The thyroid gland	7. 8. 9. 10	Simple Goitre Hyperthyroidism & graves' disease Thyroid cancer . Thyroidectomy & Neck dissection

	Thyroidectomy		
Parathyroid and Adrenal Glands	Anatomy of parathyroid gland	(56) The parathyroid gland (57) The adrenal glands and other abdominal endocrine disorders	<ul> <li>3. Anatomy, physiology, investigations of parathyroid glands, Hyperthyroidism</li> <li>4. Tumours of adrenal cortex, medulla &amp; MEN</li> </ul>
Slivery Glands	Anatomy of submandibular gland Minor Salivary Gland Cyst Ranula of sublingual Gland Sialolithiasis of Submandibular Gland Tumors of Submandibular Gland Disorders of Parotid Gland	(54) Disorders of the salivary glands	<ul> <li>5. Anatomy, physiology, investigations of parotid &amp; submandibular gland</li> <li>6. Diseases of salivary glands <ul> <li>c. Retention cyst</li> <li>d. Sialolithiasis</li> </ul> </li> <li>7. Neoplasm salivary gland</li> <li>8. Parotidectomy &amp; submandibular gland excision</li> </ul>
Others	Metastatic Cervical Lymph Nodes Cystic Hygroma (Cavernous Lymphangioma) Tuberculosis Lymphadenitis Lymphadenopathy Chemodectoma (Carotid Body Tumour)	(52) The pharynx, larynx and neck	2. Diseases of neck (page 805)
	IV- Thorax (5)		
Chest Trauma Others	Tension Pneumothorax Hemithorax Cardiac (Pericardial) Tamponade Flail Chest Chest Intubation Thoracotomy Hemoptysis Lung Cancer Chest Cancer	(60) The thorax	<ol> <li>Anatomy, physiology of Investigations of thorax</li> <li>Thoracic injury (page 379)         <ul> <li>Spontaneous pneumothorax, tension pneumothorax, flail chest, cardiac tamponade</li> </ul> </li> <li>Acute empyema thoracic, disorders of airway &amp; lung abscess</li> <li>Lung cancer &amp; chest wall tumors</li> <li>Chest intubation, thoracotomy &amp;</li> </ol>
	Acute Empyema Thoracic  V-		VATS
	Breast (4)		
Malignant Diseases of Breast	Anatomy Paget 's disease of Nipple Mastectomy Breast Reconstruction Surgery	(58) The breast	. 5. Anatomy, embryology of breast,
Benign Disease of Breast	Investigations of Breast Disease Mastalgia (Breast pain) Nipple Discharge Fibroadenoma Phyllodes Tumour Traumatic aft Necrosis Lactational Breast Abscess Gynaecomestatia		investigations for breast diseases 6. Carcinoma breast 7. Mastectomies & Reconstructive Surgery 8. Benign breast disease ANDI

	VI- Nervous		
	System (4)		
Head, Spine and Nerve Injuries	Basal Skull Fracture Brain Injuries Extradural (Epidural) Hematoma Subdural Hematoma Types of Nerve Injuries Median Nerve Injuries Redial Nerve Injuries Carpal Tunnel Syndrome	(28) Traumatic Brain Injury (48) Cranial neurosurgery  (30) Neck & Spine with (32) Extremity Trauma	2. Head injury (chapter 28)
Others	Brainstem Death Brain Tumours Hydrocephalus Lumber Disc Herniation (Disc Prolapse)	Orthopaedics (37) The Spine	<ol> <li>Anatomy, Physiology (ICP)</li> <li>Hydrocephalus, brain abscess</li> <li>Brain tumors &amp; brain stem death</li> </ol>
	VII- Heart & Great		
	Vessels (5)		
Heart	Coronary Artery Disease Congenital Heart Disease Valvular Heart Disease	(59) Cardiac Surgery	<ul> <li>5. Cardiopulmonary bypass, indications, methods &amp; complications</li> <li>6. Coronary artery disease</li> <li>7. Congenital heart disease</li> <li>8. Valvular heart disease</li> </ul>
Great Vessels	Acute Lower Limb Ischemia Chronic Lower Limb Ischemia Compartment Syndrome Gangrene Abdominal Aortic Aneurysm (AAA) Aortic Dissection (Dissecting Aneurysm) Thoracic Outlet Syndrome Venous Ulcers (Gravitational Ulcer) Deep Venous Thrombosis (DVT)	(24) Post Op care including perioperative optimization (with Anaesthesia)  (61) Arterial disorders (62) Venous disorders	2. Abdominal aortic aneurysm
	VIII-		
Maxillofacial Injuries	Orodental (3)  Squamous Cell Carcinoma of Oral Cavity Cleft Lip and palate Mandibular Fracture Ameloblastoma of Mandible	(31) Maxillofacial Trauma (50) Developmental abnormalities of the face, mouth and jaws; cleft lip and palate (53) Oral cavity cancer	<ul> <li>4. Maxillofacial injuries (mandibular &amp; maxillary)</li> <li>5. Oral cavity, tumours</li> <li>6. Developmental anomalies of face, mouth &amp; jaws, cleft lip and palate</li> </ul>

### **Anesthesia**

Date	Topic	Batch
10.03.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-C
24.03.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-D
07.04.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-D
21.04.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-C
05.05.2023	General Anaesthesia  Pharmacology + Clinical	Batch-C
19.05.2023	Management of Airway + Complications of Anaesthesia	Batch-C
02.06.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-F
16.06.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-F
28.07.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-E
11.08.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-E
25.08.2023	General Anaesthesia  Pharmacology + Clinical	Batch-E
08.09.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-B
22.09.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-B
06.10.2023	General Anaesthesia  Pharmacology + Clinical	Batch-B
20.10.2023	Introduction to Anaesthesia  Pre-Anaesthetic Assessment/Premedication	Batch-A
03.11.2023	Regional Anaesthesia Pharmacology + Clinical	Batch-A

## Urology

# Radiology

Day	Topic	Sub topics
LECTURE 1	Chest X-ray	To understand  Basic anatomy and interpretation, Understanding different diseases including Pneumothorax, Pneumonia, effusion, Cardiomegaly
LECTURE 2	Cholecystitis	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 3	Obstructive jaundice	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 4	Intestinal obstruction & Hernia	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 5	Appendicitis & Renal stone	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 6	Gut perforation	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 7	Pancreatitis	To understand Imaging features of acute and chronic disease process and all available modalities.
LECTURE 8	CVA Brain	To understand Imaging features of acute and chronic disease process and all available modalities.

# Orthopedics

Proposed time line	Topic	Sub- topic
Week 13	Applied basic orthopedics	Pathophysiology of trauma and shock
		Mechanical properties of bone and soft tissue
		Principles of bone and soft tissue healing
WEEK 4-5	Congenital and developmental diseases	Congenital talipes equino Varus and valgus (CTEV), FLAT FOOT, PERTHES DISEASE, SCFE
		Bone dysplasias i.e. pseudarthrosis, achondroplasia
WEEK 6-8	Bone & joint infection	Acute osteomyelitis & septic arthritis
		Chronic Osteomyelitis
		Tuberculous arthritis / caries spine
WEEK 9-10	Metabolic bone disease	Richet's osteomalacia
		Hyper parathyroidism
WEEK 11-13	Neuro muscular disorders	Muscular dystrophies i.e. duchenne Becker
		Cerebral palsy
		Post-polio paralysis PPP
WEEK 14-16	Bone Tumors	Benign: Bone Cysts, exostosis
		fibroma, lipoma, osteoma, giant cell tumor
		Malignant: Osteosarcoma, Ewing's sarcoma
WEEK 17-19	Neck pain, low back pain	Disc Disease
		Scoliosis
		Cervical spondylosis

WEEK 20-24	Arthritis	Rheumatoid Arthritis
		Osteoarthritis
		Ankylosing spondylitis
		Gout
		Frozen shoulder
		Tennis elbow, plantar fasciitis, trigger finger, de quervains disease
WEEK 25-28	Soft Tissue Injury	Common sprains of muscles, ligaments & tender
		Nerve injury
		Arterial injury
		Brachial plexuses injuries
WEEK 29	Deformity	Genu varum / genuvalgum
WEEK 30-40	Fractures	Principles of fracture classification
		Conservative management of fractures
		Principles of fracture fixation
		Fractures of upper limb
		Fracture of lower limb
		Pelvic trauma
		Spine trauma
		Management of common dislocations
		Complications i.e. mal-union, non-union, AVN,
		Compartment syndrome
		Management of Open fractures
		Management of polytrauma patient

### Counselling

### a. Career Guidance

To facilitate students in determining their career path and relevant education based on their personality, a type of counseling is undertaken by professionals to identify and explore the most suitable careers and occupations to start their career in the right direction

### b. Psychosocial Counselling

The goal is to help overcome students any kind of obstacle in life. Sessions are private and all information between students and professional stay confidential. Students can ask for help, whenever they experience emotional distress.

### NOMINATED FACULTY MEMBER

Surgical unit 1; Dr. Sidra Shoaib Qureshi Surgical unit 2; Dr. Wasif Majeed Chaudhary

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