INDUS MEDICAL COLLEGE

FINAL YEAR MBBS

STUDY GUIDE

Academic Session

2024-25

PREFACE

The MBBS program is intended to prepare medical students to take on the primary responsibility of caring for patients. The majority of education in the basic and clinical science fields is aimed at achieving this goal. The student shall acquire a significant amount of knowledge and specificity in order to complete the entire MBBS curriculum. Subject-based training allows students to build a thorough and profound understanding of each individual subject. However, this educational paradigm may lead to students failing to comprehend the interconnection of knowledge across disciplines (inter-disciplinary), their interrelation, and, most importantly, their importance in the context of patient care and safety.

Several innovative ways have been developed throughout the years to address these challenges. One such technique is to integrate training at various levels, which eliminates and minimizes vertical and horizontal borders between subjects and phases. Indus Medical College, while appreciating the virtues of these techniques, has attempted to grab the chance to understand the interdependencies and eliminate duplication in the disciplines being taught through the use of an integrated modular approach.

The cardiovascular system, musculoskeletal system, and respiratory system are only a few examples of system-based modules in an integrated modular curriculum that applies basic scientific knowledge to clinical issues. Integrated education presents subjects as a coherent whole. Students can improve their understanding of basic scientific principles by consistently and simultaneously using clinical cases in their studies. An integrated teaching method includes Case-Based Discussions (CBL), Self-Directed Learning (SDL), and a Skills Lab (SL) for early exposure to skill acquisition.

MISSION

The prime objective of Indus Medical College is to provide Quality Medical Education and care for ailing humanity through the Quality Health Delivery System. To prepare the Medical Graduates in the field of Medicine as the most competent learned doctors, able to serve the population in general, poor and downtrodden in particular. Be also compatible at national & international levels to take up the challenges of community and accept the sole responsibility with strong desire and remain focused to achieve academic excellence, strongly believe in themselves and in the very basic principle of Medicine as the "Most Noble Profession" and maintain the professional honor and dignity throughout their life and uphold the principles of medical ethics.

VISION

The pursuits of excellence and advancement in all the disciplines of Medical / Surgical Practices through Leadership, Innovation and Standard setting in Education, Training and Collaborative Research for Benefit of Community and Country.

Goals

The MBBS Program is geared to provide you with quality medical education in an environment designed to:

- Provide a thorough grounding in the fundamental theoretical ideas supporting medical practice.

- Develop and meticulously polish the skills required for providing medical services at all levels of the Health care delivery system.

- Help you attain and maintain the highest possible levels of ethical and professional conduct in your future life.

- Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professional growth & excellence.

PROGRAM LEARNING OUTCOMES

	Program Learning outcomes (PLO)	Educational Domain
	At the end of the MBBS Program the graduates shall be able to:	
1	Correctly recognize the basic scientific principles that are needed for provision of high standard health care in patients.	Cognitive (Knowledge)
2	Correctly identify rights of patients.	Cognitive (Knowledge)
3	Diagnose, discuss and treat common diseases in our community	Cognitive (Knowledge)
4	Interpret medical reports of patients efficiently and make proper referrals	Cognitive (Knowledge)
5	Demonstrate lifelong learning abilities, critical thinking, creativity and keeping informed about latest developments in Medical care	Psychomotor (Skill)
6	Demonstrate evidence based Medicine in clinics for high standard of health care in patients	Psychomotor (Skill)
7	Display interest in medical research activities	Affective (Attitude)
8	Demonstrate practice of ethical principles in medical profession	Affective (Attitude)
9	Perform basic medical/surgical procedures efficiently with appropriate professional attitude and communication skills	Affective (Attitude)

STUDY GUIDE

INDUS MEDICAL COLLEGE

ACADEMIC CALENDAR

Academic Session 2024-2025

Activity	Class Year	Dates	
Classes starts	All Batches of MBBS	January 27, 2025	
Eid-ul-Fitr		Holiday	March 31 to April 06, 2025
Classes Resumes		All Batches of MBBS	April 07, 2025
Summer Vacation/ Internship/Elective		1st to 4th Year MBBS	June 07 to July 06, 2025
Summer Vacation/ Tour		Final Year MBBS	June 07 to July 06, 2025
Classes Resumes		All Batches of MBBS	July 07, 2025
Classes Ends		1st to 4th Year MBBS	November 07, 2025
		Final Year MBBS	December 05, 2025
Exam Preparation		1st to 4th Year MBBS	November 08 to November 30, 2025
		Final Year MBBS	December 06 to January 04, 2026
Annual Examination		1st to 4th Year MBBS	December 01 to December 31, 2025
		Final Year MBBS	January 05 to January 31, 2026
Winter Vacation		1st to 4th Year MBBS	January 01, 2026 to January 04, 2026

INDUS MEDICAL COLLEGE

CLINICAL ROTATION OF FINAL YEAR MBBS BATCH: 2020-21

DATE	MEDICINE	PAEDIATRICS	SURGERY	OBS-GYN
03-Mar-2025 to 28-Mar-2025	A-1	A-2	B-1	B-2
31-Mar-2025 to 25-Apr-2025	A-2	A-1	B-2	B-1
28-Apr-2025 to 30-May-2025	B-1	B-2	A-1	A-2
01-July-2025 to 25-July-2025	B-2	B-1	A-2	A-1
28-July-2025to 22-Aug-2025	A-1	A-2	B-1	B-2
25-Aug-2025 to 19-Sep-2025	A-2	A-1	B-2	B-1
22-Sep-2025 to 17-Oct-2025	A-2	A-1	B-2	B-1
20-Oct-2025 to 07-Nov-2025	B-1	B-2	A-1	A-2
10-Nov-2025 to 05-Dec-2025	B-2	B-1	A-2	A-1
VENUE	Medicine Ward 1st Floor IMCH	Paediatrics Ward 1st Floor IMCH	Surgical Ward 2nd Floor IMCH	OBS-GYN Ward Ground Floor IMCH
ROLL NUMBER	GROUP: A-1 Roll No. (01-2k20 To 025-2k20)	GROUP: A-2 Roll No. (026-2k20 To 050-2k20)	GROUP: B-1 Roll No. (051-2k20 To 075-2k20)	GROUP: B-2 Roll No. (076-2k20 To 100-2k20)

Effective From: 01 January 2025 to 05 December 2025.

Director Academics
Indus Medical College

INDUS MEDICAL COLLEGE

DEPARTMENT OF

SURGERY

ACADEMIC SESSION 2024-2025

DEPARTMENT OF SURGERY

Teaching Faculty

S. No	Name	Designation
1	Prof. Khamiso Khan Altaf Talpur	Professor & Head of Department
2	Prof. Muhammad Hanif	Professor
3	Prof. Abdul Ghafoor Dalwani	Professor
4	Dr. Shahnawaz Abro	Professor
5	Dr. Muhammad Rafique Pathan	Associate Professor
6	Dr. Abdul Rasheed Zai	Assistant Professor
7	Dr. Shahid Nazir	Assistant Professor
8	Dr. Sara Khalid Memon	Assistant Professor
9	Dr. Iqra Khanzada	Senior Registrar
10	Dr. Gulshan Kumari	Registrar
11	Dr. Robina Qureshi	Registrar
12	Dr. Chaman Lal	Registrar

INTEGRATED MODULAR CURRICULUM

FINAL YEAR SYLLABUS FOR THE SUBJECT OF SURGERY

Introduction:

Integrated modular curriculum for the subject of General Surgery of final year MBBS is divided into 12 modules with 03 modules are distributed to each surgical Ward. Each module comprises of 03 weeks academic teaching. It includes lectures, ward teaching and skill lab teaching.

Integrated curriculum is designed to enhance learning by connecting theoretical knowledge with practical application. In contrast to traditional method, an integrated approach promotes a meaningful understanding of concepts by integrating basic

science with clinical practice. Integrated approach is consistent with global trends in medical education, with an emphasis on systems-based and competency-based learning to prepare students for real-world healthcare.

Integrated curriculum allows students to relate principles of anatomy, physiology, pathology, and pharmacology to clinical scenarios. This comprehensive framework not only enhances understanding, but also improves clinical reasoning, decision-making, and problem-solving skills. By incorporating active learning methods, such as casebased discussions, simulation exercises, and interdisciplinary teamwork, students are equipped to address comprehensive patient care.

Curriculum also emphasizes professionalism, ethical consideration, and effective communication, preparing students to provide empathetic, patient-centered care. It also promotes self-directed learning, required for thriving in a rapidly changing medical education. Thus the integrated approach ensures that future doctors are competent, confident, and prepared to meet the challenges of healthcare delivery.

Rationale:

Integrated curriculum in surgery for undergraduates (Final year MBBS) is essential as this is the critical phase in preparing students for their roles as competent medical profession. By integrating anatomy, physiology, pathology, and radiology with clinical practice, students gain ability to correlate theoretical knowledge with real-life patient management. This approach enhances their diagnostic decision-making skills while preparing them to address complex clinical scenarios in a multidisciplinary healthcare setting. Additionally, integrating procedural skills and evidence-based medicine ensures that students are equipped for the need of surgical practice, from preoperative assessment to postoperative care.

Curriculum also emphasizes professionalism, ethical decision-making, and effective communication, which are critical components of patient-centered care. Teamwork and interdisciplinary collaboration exposure prepares students for real-world challenges, promoting holistic care. Curriculum not only enhances clinical competence but also instills lifelong learning habits. Ultimately, an integrated surgical curriculum ensures that graduating students are ready to transition into their roles as capable healthcare professionals. **Learning Objectives:**

At the end of the Integrated Curriculum of Surgery, students will be able to:

1. Demonstrate in-depth knowledge of anatomy, physiology, pathology and clinical features of surgical diseases, and integrate this knowledge into patient care.
2. Conduct detailed histories and physical examinations, interpret relevant diagnostic tests, and make accurate diagnoses of common surgical conditions.

3. Demonstrate in depth understanding of the indications, contraindications of common surgical procedures.
4. Integrate basic scientific and clinical knowledge for the management of surgical patients.
5. Perform basic surgical skills under supervision, including basic procedures such as wound dressing, catheterization and passing nasogastric tubes, suturing and assisting in minor surgical procedures.
6. Identify and manage surgical emergencies, including trauma, shock, and acute abdominal conditions, with an emphasis on timely interventions and stabilization.
7. Anticipate, recognize, and manage postoperative complications, including infections, bleeding, and thromboembolic events.
8. Apply principles of patient safety, sterility, infection control, and surgical ethics to clinical practice.
9. Provide compassionate, respectful and culturally appropriate care, and communicate effectively with patients and their families.
10. Work effectively within multidisciplinary teams, coordinating with anesthesiologists, radiologists, and other healthcare professionals to improve patient outcomes.
11. Recognize the role of surgery in public health, and low-resource settings, emphasizing on preventive and cost-effective care.
12. Engage in self-directed learning, and participate in clinical research to stay abreast of surgical advances.
13. Advocate professional values, ethical principles and commitment to continuous improvement in surgical care.
14. Learn to engage in modern diagnostic tools, minimally invasive surgical techniques and surgical innovations to improve patient care.

    Distribution of topics to each surgical Ward with schedule of teaching per Module is distributed as under;

Surgical Ward

Module 1: Perioperative care: Pre-operative care, postoperative care, Anesthesia and pain relief, fluid and Nutrition

Module 2: Upper GI Esophagus, stomach, duodenum, Bariatric, GI endoscopy **Module 3: Vascular disorders** Arterial disorders, venous disorders, lymphatic disorders

Surgical Ward

Module 4: Trauma Trauma, Shock, Hemorrhage, blood transfusion, metabolic response to jury, Patients care and safety

Module 5: Hepato Biliary system and pancreatic system: Biliary system, Liver, pancreas, Spleen, Minimal access surgery

Module 6: Abdominal wall Hernia and Inguino scrotal swelling Abdominal Wall Hernias, Testis and scrotum, Day care surgery

Surgical Ward

Module 7: Wound and its management Wound, Tissue engineering and regeneration, Surgical infections, Tropical infestations

Module 8: small bowel and its related disorders Small intestine, Intestinal Obstruction, peritoneum and mesentery, inflammatory bowel disease

Module 9: Large bowel and Anal Canal Appendix, Large Gut, Rectum and anal canal

Surgical Ward

Module 10: Basic principles of Surgery:

Basic surgical skills, Diagnostic imaging, Tissue and molecular diagnosis, Global Health and Surgery, Transplantation

Module 11: Neck swelling and adrenal Thyroid, parathyroid, extra thyroidal neck swellings, adrenals

Module 12: **Breast and its related disorders** Breast and its related disorders, surgical oncology, Audit, Ethics

Surgical Ward

Lectures of Surgical Ward are as under;

No. of lectures	Topic covered
	Module 1: Peri operative care
1	Preoperative care, postoperative care
2	Anesthesia and pain relief
3	Fluid and Electrolyte imbalance
4	Nutrition disorders
	Module 2: Upper GI Pathology
4	Esophagus
5	Stomach and duodenum
6	Bariatric Surgery and GI endoscopy
	Module 3: Vascular Disorders
7	Arterial disorders
8	Venous disorders
9	lymphatic disorders

Tutorials of Surgical Ward are as under;

No. of Tutorials	Topic covered
	Module 1: Peri operative care
1	Preoperative care, postoperative care
2	Anesthesia and pain relief
3	Fluid and Electrolyte imbalance
4	Nutrition disorders, **on Friday**
	Module 2: Upper GI pathology
5	Esophagus
6	Stomach and duodenum
7	Bariatric Surgery
8	GI endoscopy, **On Friday**
	Module 3: Vascular Disorders
9	Arterial disorders
10	Venous disorders, Varicose veins
11	Venous disorders, DVT
12	lymphatic disorders, **On Friday**

Learning Objectives of each Module with specific topics are as under;

Topic	Learning Objectives	Importance	Teaching Method	Assessment
MODULE 01				
Preoperative care and postoperative care	**Cognitive** • How to optimize patients and identification of highrisk patients? • Surgical, medical and anaesthetic aspects of assessment • How to predict and recognize most common post-operative complications **Psychomotor:** • How to prevent and treat common postoperative complications. **Affective:** • Counselling for critically ill patients and high-risk patients	Good to know Must Know	Lecture / Demonstration , SGD, Practical, CBL/ PBL	SBQs & OSVE, OSCE, Clinical Exam
Anesthesia and pain relief	**Cognitive:** • Different types of anesthesia and techniques • Methods of providing pain relief **Psychomotor:** • Airway management • management of chronic and acute pain by injectables **Affective:** • follow the recommended guidelines for anesthesia and pain relief	Good to Know		
Nutrition and fluid Balance	**Cognitive:** • Assess and calculate nutritional requirement in surgical patient • Different types and routes for nutrition • Types of fluids in surgical patients • Monitor fluid challenges	Good to Know		
	Psychomotor: • Instill IV fluids and nutrition **Affective:** • Understand the choice of fluids in surgical patients	Must Know		

Topic	Learning Objectives	Importance	Teaching Method	Assessment
MODULE 02				
Esophagus	**Cognitive:** • The anatomy, physiology and pathology of esophagus • Clinical features, investigations and treatment of common benign and malignant conditions of esophagus • Corrosive injury and esophageal perforations **Psychomotor:** • Physical examination of Ca esophagus **Affective:** • Consent and counselling for surgery • Sympathy for advance malignancy	Good to know Most Know	Lecture / Demonstration, SGD, Practical, CBL/ PBL	SBQs & OSVE, OSCE, Clinical Exam
Stomach and duodenum	**Cognitive:** • Gross/microscopic anatomy, physiology and pathology. • Peptic ulcer disease • Benign and malignant conditions • Gastric and duodenal perforation • How to investigate in stomach and duodenal pathology • Treatment of peptic ulcer and its complications • Presentation and treatment of gastric cancer **Psychomotor:**	Good to Know Must to Know		
	• Detail general and abdominal examination **Affective:** • Discuss the surgical options with the patient, counselling about the surgical outcome and taking consent			
Bariatic surgery	**Cognitive:** • How to treat obesity as a disease? • Patient selection and NICE guidelines • Surgical options to treat obesity • Follow-up, nutritional supplements and biochemical monitoring **Psychomotor:** • How to assess perioperative and treat perioperative complications **Affective:** • Rationale for surgery and the concept of metabolic surgery • Counselling about the surgery for obesity and future consequences	Good to Know Must Know		

Topic	Learning Objectives	Importance	Teaching Method	Assessment
	MODULE 03			
Arterial Disorders	**Cognitive:** • The nature and associated features of occlusive peripheral arterial disease • The investigation and treatment options for occlusive peripheral arterial disease • How to diagnose and treatment options for acute and chronic limb ischemia • The arteritides and vasospastic disorders	Good to know	Lecture / Demonstration, SGD, Practical, CBL/ PBL	SBQs & OSVE, OSCE, Clinical Exam
	Psychomotor: • Conservative management of acute limb ischemia (heparin) • How to examine the case of limb ischemia **Affective:** • Counselling and consent in case of limb amputation • Counselling to prevent vasospastic disorders	Must Know		
Venous Disorders	**Cognitive:** • Venous anatomy and physiology • The pathophysiology of venous hypertension • The clinical significance and management of superficial venous reflux **Psychomotor:** • The management of venous ulceration (dressings) • Venous thromboembolism • Lower limb examination for venous insufficiency **Affective:** Counselling about the life style or occupational modification to prevent venous disease	Good to Know Must to Know		
Lymphatic Disorders	**Cognitive:** • The anatomy and physiology of the lymphatic system • The etiology and classification of lymphoedema • The clinical features and management of lymphoedema **Psychomotor:** • Examination of lymphedema • Management of lymphedema • Manual lymph drainage exercises **Affective:** • Counselling about the limb care and guide about manual drainage	Good to Know Must Know		

Surgical Ward

Lectures of Surgical Ward are as under;

No. of lectures	Topic covered
	Module 4: Trauma
1.	Shock, Haemorrhage, Metabolic injury
2.	Blood transfusion
3.	Patient care and safety
	Module 5 : Hepato biliary
4.	Biliary system, Minimal invasive surgery
5.	Liver spleen
6.	Pancreas
	Module 6: Abdominal hernia and inguino scrotal swelling
7.	Abdominal wall hernias
8.	Testis and scrotum
9.	Day care surgery

Tutorials of Surgical Wardare as under;

No. of Tutorials	Topic covered
	Module 4: Trauma
1.	Shock
2.	Haemorrhage, Metabolic injury
3.	Blood Transfusion
4.	Patient care
	Module 5 : Hepato biliary
5.	Biliary system
6.	Continue Biliary system ,Minimal invasive surgery
7.	Liver, Spleen
8.	Pancreas
	Module 6: Abdominal hernia and inguino scrotal swelling
9.	Abdominal wall hernias
10.	Inguinal hernias, Femoral hernia
11.	Testis and scrotum (Hydrocele, testicular torsion, undescended testis, varicocele,)
12.	Testicular tumor, Day care surgery

Learning Objectives of each Module with specific topics are as under;

Topic	Learning objectives	Importance	Teaching method	Assessment
MODULE 04				
Trauma	**Cognitive** • Describe the principles of trauma care. • Discuss Advanced Trauma Life Support (ATLS) guidelines. • Identify indications for diagnostic imaging in trauma (e.g., X-ray, CT, FAST). • Discuss the management of specific traumatic injuries (e.g., head injury, chest trauma, abdominal trauma). **Psychomotor** • Perform rapid trauma assessments using primary and secondary survey frameworks. • Demonstrate airway protection techniques including chin lift, jaw thrust. • Apply a pelvic binder for stabilization of pelvic fractures. • Perform needle thoracotomy for tension pneumothorax. **Affective** • Demonstrate empathy and professionalism when dealing with trauma victims and their families.	**Must know**	Lecture, Tutorial, CBL Clinical rotation, Skill lab Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OCSE
Shock, Hemorrhage, Metabolic response to injury	**Cognitive** • Explain classification and mechanisms of shock. • Explain pathophysiology of distributive shock (hypo volumic shock) and its management • Classify the types of bleeding and describe the stages of hemorrhagic shock. • Describe metabolic response to injury. **Psychomotor** • Establish intravenous access and initiate fluid resuscitation for patients in shock. Demonstrate methods of controlling bleeding, including direct pressure, tourniquets, and packing of wound and suturing.	**Must know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation	MCQs, SEQs OSCE, Direct observation
	Affective Demonstrate professionalism , empathy and effective communication when interacting with patients in critical condition and their families		Role play, group discussion	Feedback, OSCE

Transfusion, patient safety	**Cognitive** • Describe indications, contraindications, and complications of blood transfusion. • Discuss the preparation, storage, and matching of blood and blood products. • Explain the management of transfusion reactions. • Explain infection prevention principles, including aseptic and sterile techniques. • Discuss patient safety protocols such as the surgical safety checklist and timeout procedures. **Psychomotor** • Demonstrate appropriate techniques for blood sample collection, crossmatching, and safe administration of blood transfusions. • Apply infection control measures, including hand hygiene and correct use of personal protective equipment. • Use WHO Surgical Safety Checklist effectively in simulated or real scenarios **Affective** • Promotes patient safety and adherence to principles effective transfusion practice.	**Must Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
MODULE 05				
Biliary system and minimal invasive surgery	**Cognitive** • Describe anatomy and pathophysiology of biliary system. • Identify common biliary tract diseases. • Correlate clinical findings, biochemical tests and diagnostic imaging (e.g., ultrasound, CT) to plan the management of biliary tract disease • Outline the principles and advantages of minimally invasive surgery (MIS),	**Must Know**	Lecture Tutorial Group discussion	MCQs, SAQs, Presentation OSCE, Direct observation
	including its application in gallbladder surgery. • Explain indications, contraindications, and complications of laparoscopic cholecystectomy. • Describe preparation, patient positioning, and equipment used in laparoscopic cholecystectomy. • Describe the steps of laparoscopic cholecystectomy and common troubleshooting techniques during the procedure. **Psychomotor** • Perform relevant history. • Perform abdominal examination focusing on signs of biliary disease, such as Murphy's sign or jaundice. • Identify laparoscopic instruments. **Affective** • Display professional behavior, team work skills and communication skills		Skill lab, Clinical rotation Role play, group discussion	Feedback, OSCE

Liver, Spleen	**Cognitive** • Explain anatomy and functions of liver and spleen. • Identify common liver diseases, including abscess, cysts, tumor. • Discuss indications, techniques, and complications of surgical procedures like liver resection and drainage of abscesses • List common splenic diseases requiring surgery (e.g., , trauma, hypersplenism, splenic abscess). • Discuss indications, contraindications, and complications of splenectomy. • Correlate clinical findings, biochemical and diagnostic imaging (e.g., ultrasound, CT) to plan the management of liver and splenic conditions. • Understand the prophylactic measures following splenectomy, including vaccination and infection prevention. **Psychomotor** • Take relevant history. Palpate and percuss the liver to identify hepatomegaly or other abnormalities. **Affective** • Display professional behavior, team work skills and communication skills.	**Must Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
Pancreas	**Cognitive** • Explain anatomy and functions of the pancreas. • Describe etiology, clinical features, and management of common pancreatic disorders, such as acute and chronic pancreatitis, pancreatic pseudo-cysts, and pancreatic tumors. • Understand indications, techniques, and complications of surgical interventions • Discuss the principles of post-operative care, including enzyme supplementation and glucose management. **Psychomotor** • Take relevant history of pancreatic disorders • Perform clinical examination and identify key signs of pancreatic pathology, such as Cullen's and Grey Turner's signs. **Affective** • Display professionalism while evaluating patient with pancreatic diseases	**Must know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
MODULE 06				
Abdominal wall hernia	**Cognitive** • Describe anatomy of abdominal wall, and potential hernia sites (inguinal, femoral, umbilical, incisional, etc.). • Explain pathophysiology and classifications of hernias. • Identify clinical features of hernias, including pain, swelling, and complications. • Describe diagnostic modalities. • Outline the principles of hernia management.	**Must know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
	• Explain surgical techniques for hernia repair, including open and laparoscopic approaches • Explain the complications of hernia repair. **Psychomotor** • Perform history and clinical examination to diagnose and classify abdominal wall hernias. **Affective** • Demonstrate professionalism when counseling patients regarding treatment options and potential complications		Role play, group discussion	

Testis , **Scrotum**	**Cognitive** • Describe the anatomy of scrotum and its contents, including the testis, epididymis, and spermatic cord. • Understand the physiological functions of the testis.. • Describe etiology, clinical features, and complications of common scrotal and testicular disorders, including: o Hydrocele o Varicocele o Epididymitis and orchitis o Testicular torsion o Testicular tumors o Scrotal trauma o Inguinoscrotal hernias. • Differentiate between acute and chronic scrotal swellings based on clinical evaluation. • Explain the use of diagnostic tools such as: • Outline the surgical and non-surgical management of testicular and scrotal disorders. • Describe complications of different surgical procedures of scrotal and testicular disorder. • Discuss postoperative care. **Psychomotor** • Perform history and clinical examination of the scrotum and testis to identify condition.	**Must Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
	• Demonstrate proper technique for bedside diagnostic maneuvers. **Affective** • Counsel patients and families effectively on treatment options, potential complications, and prognosis. • Maintain patient dignity and privacy during examination and management.			
Day care surgery	**Cognitive** • Define day care surgery and its significance in modern healthcare systems. • Explain the criteria of patient selection for day care surgery. • Identify surgical procedures commonly performed in day care settings. • Describe discharge criteria and instructions for home care and followup. • Discuss the benefits of day care surgery. **Psychomotor** • Conduct preoperative assessment for patients undergoing day care surgery **Affective** • Demonstrate empathy and professionalism when explaining the day care surgical process to patients and families.	**Nice to know**	Lecture Tutorial Group discussion Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE

Surgical Ward

Lectures of Surgical Ward are as under;

No. of lectures	Topic covered
	Module 7: Wound and its management
1	Wound and its management, Tissue engineering and regeneration
2	Surgical infections
3	Tropical infestations
	Module 8: small bowel and its related disorders
4	Small intestine and inflammatory bowel disease
5	Intestinal Obstruction
6	Peritoneum and Mesentery
	Module 9: Large bowel and Anal canal
7	Appendix
8	Large Bowel
19	Rectum
10	Anal Canal

Schedule of tutorials of Surgical WardII are as under;

No. of Tutorials	Topic covered
	Module 7: Wound and its management
1	Wound and its management
2	Surgical infections
3	Tropical infestations
4	, Tissue engineering and regeneration **on Friday**
	Module 8: small bowel and its related disorders
5	Small intestine
6	Intestinal Obstruction
7	Peritoneum and Mesentery
8	Inflammatory bowel disease **On Friday**
	Module 9: Large bowel and Anal canal
9	Appendix
10	Large Bowel
11	Rectum
12	Anal Canal

Learning Objectives of each Module with specific topics are as under;

Topic	Learning Objectives	Importance	Teaching Method	Assessment
MODULE 07				
Wound and its management	**Cognitive** • Normal wound healing and identify factors that adversely affects wound healing • Classification of wounds and types of healing • Principles of wound and scar management **Psychomotor:** • Identification and management of infected wound. • Application of different types of dressing **Affective:** • Patient's care with chronic wounds specially in geriatric and critically ill patients.	Good to know Must Know	Lecture / Demonstrati on, SGD, Practical, CBL/ PBL	SBQs & OSVE, OSCE, Clinical Exam
Surgical infections	**Cognitive:**	Good to Know		
	• Common surgical pathogens and their sensitivities. • Clinical presentation of surgical infections. • Principles of antibiotic therapy, their misuse and development of resistance. • Koch's postulates • Surviving sepsis campaign, sepsis bundles and sepsis six • Concept of primary and secondary closure of wounds. • Host response in surgical infections • Definitions of infection, particularly at surgical sites **Psychomotor:** • Practice different aseptic techniques • Management of abscesses **Affective:**			

Tropical infestations	**Cognitive:** • common surgical infections and infestations that occur in the tropics. • Emergency presentations of patient. • Diagnosis, investigations and treatment of emergency conditions. • The multidisciplinary approach between surgeon, physician, radiologist, pathologist and microbiologist. **Psychomotor:** • General and local (lump, ulcers, abdomen, chest) examination of the patient **Affective:** • Effectively communicate and explain the causes	Good to Know Must Know		
	tropical infestations and guide the patients who are travelling to or coming from the areas, where tropical infestations are common			
Tissue engineering and regeneration	**Cognitive:** • Value and limitations of tissue diagnosis. • Approach of tissue processing and principles of microscopic diagnosis. • Features of neoplasia and its clinic-pathological correlation. • Role of immunohistochemistry and molecular pathology. **Psychomotor:** • General physical examination of cancer patients • Examination of malignant lumps or ulcers **Affective:** • Show sympathy towards cancer patients, especially in terminal illness. • Explain the course of disease to the patients. • Counselling/consent taking for tissue diagnosis and its importance.	**Tissue engineering and regeneration**	**Cognitive:** • Value and limitations of tissue diagnosis. • Approach of tissue processing and principles of microscopic diagnosis. • Features of neoplasia and its clinic-pathological correlation. • Role of immunohistochemistry and molecular pathology. **Psychomotor:** • General physical examination of cancer patients • Examination of malignant lumps or ulcers **Affective:** • Show sympathy towards cancer patients, especially in terminal illness. • Explain the course of disease to the patients. • Counselling/consent taking for tissue diagnosis and its importance.	**Tissue engineering and regeneration**

Topic	Learning Objectives	Importance	Teaching Method	Assessment
	MODULE 08			
Small intestine	**Cognitive:** • Basic anatomy and physiology of small intestine • Aetiology and pathology of common intestinal conditions The sign/symptoms, investigations and management of intestinal problems • Principles of small intestinal surgery • Non- surgical management of intestinal problems **Psychomotor:** • Abdominal examination • ileostomy care **Affective:** • Counselling/consent in complex intestinal surgery (stoma formation, reexploration)	Good to know	Lecture / Demonstration, SGD, Practical, CBL/ PBL Most Know	SBQs & OSVE, OSCE, Clinical Exam
Intestinal Obstruction	**Cognitive:** • Common causes of intestinal obstruction • History, diagnosis and principles of management • Interpretations of radiological findings • Surgical options and complications in gut resections **Psychomotor:** • Abdominal examination • Clinical signs **Affective:** • Able to explain to the patients about risk VS benefit of surgery • Counsel about stoma care and diet modification	Good to Know Must to Know		
Peritoneum and Mesentery	**Cognitive:** • The development and anatomy of the mesentery and peritoneum • Surgical conditions of the peritoneum, mesentery, greater omentum and retroperitoneal space **Psychomotor:** • Abdominal examination &GPE **Affective:**	Good to Know Must Know		

Inflammatory bowel disease	**Cognitive:** • Etiology and pathology of inflammatory bowel disease • Distinguishing features of ulcerative colitis and Crohn's disease • Extra-intestinal manifestations in inflammatory bowel disease • Principles of medical management • Emergency and elective surgeries in inflammatory bowel disease • Postoperative complications and outcomes in long term **Psychomotor:** • GPE and abdominal examination • Examination of extra intestinal manifestations **Affective:** • Counselling about the longterm complications • Counselling about the diet and lifestyle modifications • Counsel the patients to accept the condition and to live with it			

Topic	Learning Objectives	Importance	Teaching Method	Assessment
	MODULE 08			
Appendix	**Cognitive:** • Surgical anatomy, clinical signs and differential diagnosis of appendicitis • The basic investigations in appendicitis • Open and laparoscopic appendicitis • Tumor of appendix and pseudomyxoma peritonei **Psychomotor:** • History to exclude differentials • Elicit clinical signs in appendicitis **Affective**	Good to know Must Know	Lecture / Demonstration, SGD, Practical, CBL/ PBL	SBQs & OSVE, OSCE, Clinical Exam
Large Bowel	**Cognitive:** • Anatomy and physiology of large bowel • Etiology and pathology of large bowel conditions • Principles of investigations of large bowel symptoms • Principles of colonic surgery • Management of emergency and elective surgical problem of large intestine • Different type of stoma in large bowel **Psychomotor:** • History of bleeding PR • Digital rectal examination and proctoscopy • Abdominal examination • Demonstrate stoma care **Affective:** • Counselling in the denial phase when disclosing malignant conditions • Consent taking for stoma	Good to Know Must to Know		
Rectum	**Cognitive:** • Anatomy and pathology of the rectum • Clinical presentation, investigations and treatment of the bening disease affecting the rectum • Carcinoma of the rectum, its presentation, surgery and postoperative care **Psychomotor:** • History of bleeding PR • DRE • Proctoscopy • Abdominal examination **Affective:** • Stoma consent/counselling	Good to Know Must Know		
Anal Canal	**Cognitive:** • The anatomy and physiology of the anal canal • Clinical presentation, investigations and differential diagnosis in anal canal pathology • Management of benign and malignant anal canal conditions **Psychomotor:** • DRE and proctoscopy **Affective:**			

Surgical Ward

Schedule Lectures of Surgical Ward are as under;

No. of lectures	Topic covered
	Module 10: Basic principles of Surgery
1	Basic surgical skills
2	Tissue diagnosis and molecular diagnosis
3	Transplant Global health and surgery
	Module 11: Neck swelling and adrenal
4	Thyroid
5	Extra thyroidal neck swelling
6	Parathyroid, Adrenals
	Module 12: Breast and its related disorders
7	Benign breast disease
8	Ca breast
19	Surgical oncology
10	Audit and ethics

Schedule of tutorials of Surgical Ward are as under;

No: of tutorials	Topic covered
	Module 10: Basic principles of Surgery
1.	Basic Surgical skills
2.	Diagnostic imaging, Tissue and molecular diagnosis
3.	Global Health and Surgery
4.	Transplantation
	Module 11 : Neck swelling and adrenal
5.	Thyroid
6.	Extra thyroidal neck swelling
7.	Parathyroid
8.	Adrenals
	Module 12: Breast and its related disorders
9.	Benign Breast diseases
10.	Ca Breast
11.	Surgical oncology
12.	Audit and ethics

Learning Objectives of each Module with specific topics are as under;

Topic	Learning objectives	Importance	Teaching method	Assessment
MODULE 10				
Basic surgical skills	**Cognitive** • Describe principles of asepsis, antisepsis, and sterilization. • Explain steps of basic surgical techniques (incision, suturing, and knot-tying). • Explain the uses of surgical instruments. **Psychomotor** • Demonstrate proper hand hygiene and sterile gowning/gloving techniques. • Perform basic suturing, wound closure, and knot-tying under supervision. • Identify instruments and handle instruments with safety. **Affective** • Demonstrate adherence with protocols in maintaining sterile fields. • Display commitment to practicing surgical skills with care.	**Must know**	Lecture, Videos Tutorial, CBL Clinical rotation, Skill lab Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OCSE
Diagnostic imaging, Tissue and molecular diagnosis	**Cognitive** • Describe indications, advantages, and limitations of imaging modalities like X-ray, CT, MRI, and ultrasound in surgical practice. • Describe the principles of histopathological and cytological diagnosis. • Explain the role of molecular techniques in identifying malignancies and genetic disorders. **Psychomotor** • Interpret basic diagnostic images for common surgical conditions	**Good to know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation	MCQs, SEQs OSCE, Direct observation

	• Use imaging findings to correlate with clinical features. • Assist in obtaining tissue samples for biopsy. • Handle tissue specimens properly for pathological evaluation. **Affective** • Appreciate the role of diagnostic imaging. • Demonstrate sensitivity when discussing biopsy results with patients. • Appreciate the t importance of timely and accurate diagnosis.		Role play, group discussion	Feedback, OSCE
Global Health and Surgery, Transplanta tion	**Cognitive** • Categorize global disparities in surgical care. • Explain the impact of resource limitations on surgical outcomes in lowincome countries. • Describe the principles of organ allocation and recipient selection. • Explain the immunological basis of transplantation and rejection. • Knows ethical principles of organ transplantation. **Psychomotor** • Participate in case discussions on global surgical challenges. • Develop strategies for optimizing surgical care in resource-limited settings. **Affective** • Show empathy towards underserved populations. • Advocate for equitable surgical care globally. • Respect ethical principles of organ transplantation.	**Nice to Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE

MODULE 11				
Thyroid	**Cognitive** • Describe the anatomy, physiology, and pathology of the thyroid gland. • Identify clinical features and diagnostic approaches for goiter, hyperthyroidism, and thyroid malignancies. **Psychomotor** • Take relevant history. • Perform thyroid examination. • Interpretate laboratory investigation and correlate with clinical features. **Affective** • Show empathy towards patients with thyroid disorders, particularly those with malignancy. • Acknowledge the importance of lifelong follow-up in thyroid patients.	**Must Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
Extra thyroidal neck swellings	**Cognitive** • Classify neck swellings based on anatomical location and etiology. • Describe clinical features of different neck swelling • Describe the diagnostic approach for cystic, inflammatory, and neoplastic swellings. **Psychomotor** • Take relevant history. • Perform examination of cervical lymph nodes. • Assist in biopsy procedures for lymphadenopathy. **Affective** • Display professional behavior and show respect for patient concerns and fears about malignancy. • Advocate for timely intervention and care.	**Must Know**	Lecture Tutorial Group discussion Skill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE

Parathyroid and adrenals	**Cognitive** • Explain the physiology of calcium metabolism and parathyroid function. • Identify clinical features of hyperparathyroidism and hypoparathyroidism. • Explain the anatomy, physiology, and pathology of the adrenal glands. • Recognize clinical presentations of adrenal hyper-function and hypofunction. • Identify of surgical intervention for parathyroid and adrenal disorders. **Psychomotor** • Take relevant history • Perform clinical examination and identify key signs. • Advise relevant investigations • Interpret laboratory investigation and correlate with clinical presentation **Affective** • Display professionalism while evaluating patient. • Demonstrate sensitivity when counseling patients with hormonal imbalances. • Acknowledge the importance of lifelong monitoring in adrenal disorders.	**Good to know**	Lecture Tutorial Group discussion **S**kill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
MODULE 12				
Breast	**Cognitive** • Describe the anatomy and physiology of breast. • Describe the clinical features, diagnosis, and management of benign and malignant breast conditions.	**Must know**	Lecture Tutorial Group discussion	MCQs, SAQs, Presentation

	• Explain screening methods for breast cancer **Psychomotor** • Perform history and clinical examination to diagnose breast • Assist in procedures such as FNAC, core biopsy, excision biopsy **Affective** • Respect patient privacy during breast examinations • Demonstrate empathy when addressing patient concerns for breast cancer. • Demonstrate professionalism when counseling patients regarding treatment options and potential complications.		Skill lab, Clinical rotation Role play, group discussion	OSCE, Direct observation Feedback, OSCE
Surgical oncology	**Cognitive** • Explain the principles of staging, diagnosis, and treatment of common cancers. • Describe the role of surgery in multimodal cancer treatment **Psychomotor** • Assist in biopsy and surgical procedures for tumor excision. • Participate in MDT discussions for cancer cases. **Affective** • Demonstrate compassion towards cancer patients and their families. • Advocate for early detection and prevention strategies.	**Nice to Know**	Lecture Tutorial Group discussion **S**kill lab, Clinical rotation Role play, group discussion	MCQs, SAQs, Presentation OSCE, Direct observation Feedback, OSCE
Audit and ethics	**Cognitive** • Explain the principles of clinical audit in improving surgical outcomes.	**Nice to know**	Lecture Tutorial Group discussion	MCQs, SAQs, Presentation

	• Discuss ethical issues related to informed consent, end-of-life care, and resource allocation. **Psychomotor** • Participate in data collection for audits. • Present audit findings in group discussions. **Affective** • Uphold ethical principles in all surgical practices. • Advocate for patientcentered care and shared decision-making		Clinical rotation Role play, group discussion	OSCE, Direct observation Feedback, OSCE

Updated Time Table for Final year MBBS (Academic Year 2024-2025)

Curriculum: Integrated Modular Curriculum for Liaquat University Medical & Health Sciences and its constituent and affiliated colleges

Time	Mon	Tues	Wed	Thurs	Fri
8.15 to 9.00	**Lecture SW**	**Lecture SW**	**Lecture SW**	**Lecture SW**	**CPC after every module**
9.00 AM to 10.00 AM	Tutorials on Same topic of lecture in all Wards via Case based discussion, Skill lab or via simulated patient	Tutorials on Same topic of lecture in all Wards via Case based discussion, Skill lab or via simulated patient	Tutorials on Same topic of lecture in all Wards via Case based discussion, Skill lab or via simulated patient	Tutorials on Same topic of lecture in all Wards via Case based discussion, Skill lab or via simulated patient	Skill lab learning
10.00 to 12.00	Attending ward rounds or OT	Attending ward rounds or OT	Attending ward rounds or OT	Attending ward rounds or OT	Attending ward rounds, OT
12.00 to 2.00 pm	Discussion on specific topic of clinical interest as per allotment to individual Wards	Discussion on specific topic of clinical interest as per allotment to individual Wards	Discussion on specific topic of clinical interest as per allotment to individual Wards, long case or short case discussion	Discussion on specific topic of clinical interest as per allotment to individual Wards	Discussion on specific topic of clinical interest as per allotment to individual Wards
2.00 to 4,00 pm	Individual History and exam by subgroups as per allotted beds	Individual History and exam by subgroups as per allotted beds	Individual History and exam by subgroups as per allotted beds	Individual History and exam by subgroups as per allotted beds	Individual History and exam by subgroups as per allotted beds

INDUS MEDICAL COLLEGE
FINAL PROFESSIONAL MBBS 2020-21
DEPARTMENT OF
OBSTETRICS AND GYNECOLOGY

DEPARTMENT OF OBSTERTICS GYNECOLOGY

Teaching Faculty

S. No	Name	Designation
1	Prof. Dr. Firdous Kazi	Professor & Head of Department
2	Prof. Roshan Ara Qazi	Professor
3	Prof. Dr. Khairunnisa	Professor
4	Prof. Dr. Shahla Baloch	Professor
5	Prof. Naushaba Rizwan	Professor
6	Dr. Sanobar Baloch	Associate Professor
7	Dr. Fareen	Assistant Professor
8	Dr. Sajida Munir Qazi	Assistant Professor
9	Dr. Nahil Shams	Assistant Professor
10	Dr. Neelam Fatima	Senior Registrar
11	Dr. Maria Akbar	Registrar
12	Dr. Fatima Memon	Registrar
13	Dr. Raheela Bhatti	Registrar
14	Dr. Sadaf	Registrar
15	Dr. Seema Zaidi	Registrar

ACKNOWLEDGEMENT

This Curriculum/Study Guide has been designed according to the needs of the Final Professional MBBS Students (5th Year) in the Department of Obstetrics & Gynaecology, **Indus Medical College, Tando Muhammad Khan – Pakistan**.

I would like to acknowledge the valuable contribution of my team in the Department of Obstetrics & Gynaecology, as this work would not have been possible without the combined efforts of everyone, including the dedicated non-academic staff.

It is my hope that our young students and future doctors will find this Curriculum/Study Guide helpful in acquiring essential knowledge, obstetrical and gynecological management skills, and the professional competence required in their medical career.

PROF. DR. FIRDOUS MUMTAZ
Chairperson
Department of Obstetrics & Gynaecology
Indus Medical College
Tando Muhammad Khan

INDUS MEDICAL COLLEGE

MISSION

The prime objective of Indus Medical College is to provide Quality Medical Education and care for ailing humanity through the Quality Health Delivery System. To prepare the Medical Graduates in the field of Medicine as the most competent learned doctors, able to serve the population in general, poor and downtrodden in particular. Be also compatible at national & international levels to take up the challenges of commWardy and accept the sole responsibility with strong desire and remain focused to achieve academic excellence, strongly believe in themselves and in the very basic principle of Medicine as the "Most Noble Profession" and maintain the professional honor and dignity throughout their life and uphold the principles of medical ethics.

RATIONALE

The purpose of study guide is to facilitate students learning by providing an outline of modules, teaching methods, assessment process and evaluation strategies in context to their themes required to achieve the exit competencies in the field of Obstetrics & Gynaecology. This module will enable students to appropriately evaluate, diagnose, treat and manage a broad spectrum of common problems related with Obstetrics & Gynaecology.

In this guide the details of teaching schedule and assigned faculty members for each module whom the students can contact any time for guidance or queries are also mentioned.

RULES AND REGULATIONS

1) Daily timings & posting of Obstetrics & Gynaecology is 11:00AM – 3:00PM, biometric (digital) and manual attendance both will be taken into account for this purpose.
2) All students are advised to wear white apron during ward posting (Mandatory).
3) 80% attendance is mandatory during ward posting become eligible for ward test.
4) After 11:00AM Students are considered to be late and three (03) late coming will be count as one (01) absent.
5) Bed allotment of students will be done and all students are supposed to follow their patients accordingly.
6) Formative assessment in form of end modular test will be taken multiple times throughout the rotation while summative assessment will be arrange for last 2-3 days of rotation (clinical examination & OSCE).
7) OPD timing will be strictly followed from 11:00AM – 3:00PM on respected days Except Friday timings of 11.00 to 1.00pm as per the task of the day whether outdoor or indoor.
8) Students skipping ward test unnecessary will not be allowed for ward test with any other group.

PROGRAM

The Final Professional MBBS (Obstetrics & Gynecology) Clinical Posting comprises of Eight (08) Weeks (02 Weeks per Ward)

1. Eight weeks (08) total 300 hours
    - **a.** 5 days per week (Monday - Friday)
    - **b.** 4 hours per day (08:00am – 03:00pm)

LEARNING OBJECTIVE & OUTCOMES

1) **Learning Objective**

To equip the students with essential knowledge, skills and attitude in order to enable them with following:

- **a.** Take appropriate history of Obstetrical & Gynaecological diseases; communicate effectively with the patient, family and the commWardy.
- **b.** Demonstrate the skill of General physical, systemic and abdominal examination can auscultate the fetal heart sounds, that reflects their clinical presentation.
- **c.** Formulate the problem list, a differential diagnosis. A safe and patient centered approach should be used for the diagnosis of major problems encountered in Obstetrics & Gynaecology.
- **d.** Select the most appropriate investigations relevant to each of the presenting clinical scenarios with justification.
- **e.** Develop a management plan for each problem on the problems list and learn to identify, manage critical and acute clinical cases in Obstetrics & Gynaecology.
- **f.** Demonstrate proficiency in specific procedural skills in Obstetrics & Gynaecology.

g. Demonstrate collaboration with other team members, as a part of multidisciplinary approach in carrying for patients and work as team in solving clinical problems as Case Based Learning (CBLs) during their rotation.

h. Able to demonstrate Professionalism. Professional behavior like punctuality, regularity, respectable and professional dressing, wearing a white coat and demonstration of respect and courtesy towards patients and classmates.

i. Ensure patient safety: The student should be aware and practice the principles of patient's safety, as understanding and learning from errors, engaging with patient and caregivers, practicing infection control and improving medication safety.

j. Understand the prevalence and prevention of the common public health problems related to O&G in the commWardy.

k. Understand the principles of medical research and fundamentals of information Technology.

l. Identify and access information / resources on evidence-based Obstetrics &Gynecology practice.

2) Learning Outcomes

By the end of this module, MBBS students will be able to perform

a. Cognitive Domain (Knowledge):

b. Skill Domain (Application):

c. Affective Domain (Attitudes and Professionalism):

THEMES

a) Obstetrics

1) Basic Clinical Skills

2) Physiology of Pregnancy

3) Anatomy of Fetal Skull and Maternal Bony Pelvis

4) Normal Pregnancy

5) High Risk Pregnancy

6) Miscellaneous Medical Disorders in Pregnancy

7) Perinatal Infections

8) Abnormal Pregnancy

9) Normal Labor

10) Abnormal Labor

11) Puerperium

12) New Born Care

13) Ethics in Obstetrics Practice

b) Gynaecology

14) Basic Clinical Skills

15) Sub Fertility and Early Pregnancy Loss

16) Sexual and Reproductive Health

17) Urogynaecology and Pelvic Floor Problems

18) Gynecological Oncology

19) Common Gynecological Operations

TEACHING STRATEGIES

1) Morning Tutorials
2) interactive lectures
3) Bedside clinical teaching
4) Flipped classrooms
5) Problems based learning
6) Tutorial / Practical sessions / essential skills in lab practice
7) Labor room and operation theater rotation
8) ward rounds, bed presentations
9) outpatient-based teaching
10) Assignments/ self studies
11) CPC organized by OBGYN department
12) Seminars, Clinical Pathological Conference, using modern audio visual technique, distant learning using electronic devices and current Information Technology facilities,
13) Journal club
14) Research projects
15) The subject is distributed in 20 modules (13 for Obstetrics and 07 for Gynaecology)

it is mandatory for the institute to provide necessary teaching aids and training facilities to implement the methodology.

5th YEAR CLINICAL TEACHING SCHEDULE (11:00AM -3:00PM)

Morning Orientation of topic and discussion with whole groups

Time	Activity
11:00 – 11:30 AM	Introduction of the task by lead facilitator, brief description/demonstration, interactive discussion
11:30 AM – 1:00 PM	Bedside teaching ward round: bed allocation, presentation along with postgraduates
1:00 – 1:30 PM	Pray & Lunch Break
1:30 – 2:15 PM	Students divided into 3 sub-groups in OPD, L-Room & O.T.
2:15 – 2:45 PM	Clinic Work and Log Book Assessment
2:45 – 3:00 PM	Reflection on the day's activities, feedback, self-directed learning plan

THE LOG BOOK

The log book is a collection of evidence that learning has taken place. The students are expected to make a reflective record of his/her achievement by writing the histories, examinations of patients and the skills which they have performed during their rotation.

EVALUATION / ASSESSMENT The internal assessment will contribute 20% of marks in the examination. It is intended to provide feedback to student and tutors

TOOL

a) MCQ's
b) OSPE

SUMMATIVE EVALUATION

Student evaluation will be done through theoretical evaluation

MCQ's (two papers) 200 Marks

Practical (OSPE) 160 Marks (10static Station of 8 marks each and 5 interactive stations of 16 marks each)

Internal assessment (20%) 40 Marks

Total 400 Marks

TEXT-BOOKS AND REFERENCES

1. Gynaecology by Ten Teacher 20th Edition
2. Obstetrics by Ten Teacher 20th Edition
3. Lifesaving skills manual, essential Obstetrics and New Born Care RCOG

4. Pregnancy, childbirth, postpartum and newborn care (PCPNC) A Guide for Essential Practice, Integrated Management of Pregnancy and Child Birth. Geneva: WHO 2003
5. Guideline for the management of reproductive tract infections: AAHUNG **OBSTETRICS**

MODULE – 01

BASIC CLINICAL SKILLS Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to history taking, general physical and systemic examination, suggesting relevant investigations, appropriate procedural and communication skill in Obstetrics.

- Logical sequence of eliciting history from an obstetric patient
- Clinical examination
- Interpretation of investigations
- Effective verbal and non-verbal communication \

MODULE – 02

PHYSIOLOGY OF PREGNANCY Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills (Application) and attitudes in relation to physiology of pregnancy **Re-Call:**

- Diagnosis of pregnancy
- Re-call: Conception, implantation, development of placenta, fetal circulation and abnormalities of placenta
- Physiological changes associated with pregnancy

MODULE – 03

ANATOMY OF FETAL SKULL AND MATERNAL BONY PELVIS Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation:

Re-Call:

- Anatomy of fetal skull and maternal bony pelvis
- Abnormalities of bony pelvis

MODULE – 04

NORMAL PREGNANCY

Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to antenatal care in low risk pregnancy and the appropriate modification to antenatal care:

- Pre-pregnancy care and antenatal care / Antenatal screening for diabetes
- Imaging in obstetrics
- Pre-natal diagnosis
- Essential drugs and immunization with dosage and estimated need for pregnancy, child birth and newborn

MODULE – 05

HIGH RISK PREGNANCY Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to recognition of the high risk pregnancy and the appropriate modification to antenatal care:

- Identify a high risk pregnancy
- IUGR and fetal monitoring
- Prolonged pregnancy
- Multiple pregnancy
- Hyperemesis gravidarum
- Diabetes in pregnancy
- Hypertensive disorders of pregnancy o PIH o Pre-eclampsia o Eclampsia o Essential HTN
- Chronic renal diseases
- Cardiac diseases in pregnancy

- Liver diseases in pregnancy
- Hematological disorders of pregnancy o Anemia in pregnancy o ISO immunization Thrombocytopenia and thrombophillias
- Coagulation and fibrinolytic disorders

MODULE – 06

MISCELLANEOUS MEDICAL DISORDERS IN PREGNANCY Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to the effect of pre-existing medical conditions on pregnancy and the effect of pregnancy on these conditions Epilepsy

- Migraine
- Thyroid diseases
- Respiratory disorders
- Auto immune disease

MODULE – 07

PERINATAL INFECTIONS Learning Outcome:

By the end of this module students will be able to demonstrate an understanding of the etiology, risk factors for, risks and management of the perinatal infections: Syphilis

- Toxoplasmosis
- Cytomegalovirus

Rubella

Varicella zoster

- Malaria
- Urinary tract infection
- Bacterial infections
- Herpes simplex viral infections
- Chlamydia, Gonorrhea
- Trichomoniasis
- Genital warts
- HIV, Aids
- Hepatitis

MODULE – 08

ABNORMAL PREGNANCY

Learning Outcome:

By the end of this module students will be able to demonstrate an understanding of the etiology, risk factors for, risks and management of the major antenatal complications of pregnancy:

- Bleeding in early pregnancy (brief account of) o Abortion o Ectopic pregnancy
  - Gestational trophoblastic disease
- Bleeding in 2nd half of pregnancy o Ante partum hemorrhage
    - Placenta previa
    - Abruptio placentae
    - Vasa previa
- Intra uterine fetal death
- Polyhydroamnios / oligohydroamnios
- Mal-presentation and position o Breech presentation
  - Transverse lie and shoulder presentation o Face presentation o Brow presentation
  - Cord prolapse

MODULE – 09

NORMAL LABOR

Learning Outcome:

By the end of this module students will be able to understand and demonstrate appropriate knowledge, skills and attitudes in relation to labour

- Normal Labor o Physiology o Mechanism o Diagnosis o Management of labor
  Structure and use of partograph
  Intra partum fetal monitoring o Fetal heart
  rate monitoring o Fetal scalp sampling
- Methods of induction and augmentation of labor o Indications o Contraindications o Complications
- Analgesia and anesthesia
- Management of 3rd stage of labor

MODULE – 10

ABNORMAL LABOR Learning Outcome:

By the end of this module students will be able to understand and demonstrate appropriate knowledge, skills and attitudes in relation to abnormal labor:

- Awareness of complications and management
- Instrumental vaginal delivery o Forceps delivery o Ventouse delivery
- Episiotomy
- Perineal trauma
- Cesarean section
- Prolonged labour o Causes o Management
- Obstructed labour / ruptured uterus o Causes o Management
- Complications of 3rd stage of labour
- PPH (Primary & Secondary) o Causes
  o Management
- Uterine inversion
- Obstetrics shock and unconscious patient

MODULE – 11

PUERPERIUM Learning Outcome:

By the end of this module students will be able to demonstrate an understanding of a normal and abnormal postpartum period

- Normal Puerperium o Physiological changes
- Abnormal Puerperium o Puerperal disorders o Puerperal pyrexia
  The breasts and breast disorders
  Contraception
- Maternal and Perinatal mortality

MODULE – 12

NEW BORN CARE

Learning Outcome:

By the end of this module students will be able to demonstrate an understanding of essential newborn care and common neonatal problems and their management:

- Essential newborn care
- Observe the immediate assessment, apgar score and resuscitation of newborn care
- Breast feeding and its importance
- Neonatal problems

MODULE – 13

ETHICS IN OBSTETRICS PRACTICE Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to ethics and legal issues in Obstetrics:

Ethics and Legal issues in obstetrics

GYNAECOLOGY

MODULE – 14

BASIC CLINICAL SKILLS Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to history taking, examination, investigation and common gynecological problems in the commWardy:

- Introduction, gynecological history taking
- Clinical examination by video
- Anatomy of female genital tract
- Development of female genital tract
- Puberty and adolescence
- Ovulation and its legal importance
- Physiology of menstrual cycle
- Menstrual disorders
- Abnormal menstruation
- Amenorrhea o Primary amenorrhea o Secondary amenorrhea
- Polycystic ovarian disease
- Hirsutism / virilism

MODULE – 15

SUB FERTILITY AND EARLY PREGNANCY LOSS Learning Outcome:

By the end of this module students will be able to demonstrates a basic understanding of the common causes, investigations and management of subfertility and early pregnancy loss:

- Sub-fertility
- Early pregnancy loss
- Abortion
- Ectopic pregnancy
- Gestational trophoblastic disease
- Endometriosis and Adenomyosis

MODULE – 16

SEXUAL AND REPRODUCTIVE HEALTH Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to fertility control (Contraception and termination of pregnancy), the diagnosis and management of sexually transmitted infections (including HIV), Sexual dysfunction, menopause and HRT.

- Introducing the sexual history taking
- Contraception and sterilization
- Infections of female genital tract
- Management of lower abdominal pain
- Acute pelvic inflammatory disease (PID)
- Chronic PID
- Sexually transmitted infections (STIs) including HIV/AIDS o Screening o Management Prevention of STIs
- Iatrogenic infections of female reproductive tract
- Reproductive tract infection in male
- Awareness of psycho sexual problems
- Vaginal discharge
- Menopause

MODULE – 17

UROGYNAECOLOGY AND PELVIC FLOOR PROBLEMS Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to incontinence and prolapse:

- Utero vaginal prolapse
- Urinary incontinence o Stress incontinence o Urge incontinence
- Urinary frequency
- Urinary tract infections
- Urinary fistulae

MODULE – 18

GYNECOLOGICAL ONCOLOGY Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to Gynaecology Oncology:

- Conditions affecting vulva and vagina o Benign conditions of vulva o VIN and invasive vulval carcinoma o Benign conditions of vagina o VIAN and vaginal carcinoma
- Condition affecting cervix, uterus, ovarian and fallopian tubes o Benign conditions of cervix o CIN and invasive carcinoma of cervix o Benign conditions of uterus o Malignant disease of uterus o Benign tumor of ovaries o Cancer of ovaries o Cancer of fallopian tubes
- Chemotherapy for gynecological cancers and GTDs and radiotherapy

MODULE – 19

COMMON GYNECOLOGICAL OPERATIONS Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to common gynecological procedures, pre operative and post operative management:

- Common gynecological procedures o Hysteroscopy o Laparoscopy o Cystoscopy o Dilatation and curettage o Abdominal and vaginal hysterectomy
  o Myomectomy
- Pre operative preparations
- Post operative complications and its management

MODULE – 20

ETHICS AND MEDICO LEGAL ASPECTS OF GYNECOLOGY Learning Outcome:

By the end of this module students will be able to understand and demonstrate adequate knowledge, skills and attitudes in relation to ethics and legal issues in Gynaecology:

- Litigation and consents
- Ethics and reproductive health

TOPIC DISTRIBUTION OF SYLLABUS (OBGYN)

GYNAE WARD	GYNAE WARD
Obstetrics: Module – 1 (Complete Topics) Module – 2 (Complete Topics) Module – 4 (Complete Topics) Module – 7 • Syphilis • Toxoplasmosis • Cytomegalovirus • Rubella **Gynaecology:** Module – 15 (Complete Topics) Module – 18 • Benign and Malignant Condition of Ovaries & Fallopian Tubes Module – 19 • Hysteroscopy • Laparoscopy • Staging Laparotomy	**Obstetrics:** Module – 3 (Complete Topics) Module – 5 (Complete Topics) Module – 6 (Complete Topics) Module – 7 • Varicella zoster • Malaria • Urinary tract infection • Bacterial infections **Gynaecology:** Module – 14 (Complete Topics) Module – 17 (Complete Topics) Module – 18 • Benign and Malignant condition of Uterus Module – 19 • Dilatation & Curettage • ERPC Diagnostic • Cystoscopy • Vaginal Hysterectomy
GYNAE WARD	**GYNAE WARD**
Obstetrics: Module – 7 • Herpes simplex viral infections • Chlamydia • Gonorrhea • Trichomoniasis Module – 8 (Complete Topics) Module – 9 (Complete Topics) Module – 10 (Complete Topics) **Gynaecology:** Module – 18 • Benign & Malignant Condition of Cervix Module – 19 • Abdominal Hystrectomy • Myomectomy Module – 20 (Complete Topics)	**Obstetrics:** Module –7 • Genital warts • HIV, Aids • Hepatitis Module – 11 (Complete Topics) Module – 12 (Complete Topics) Module – 13 (Complete Topics) **Gynaecology:** Module – 16 (Complete Topics) Module – 18 • Benign & Malignant Condition of Vulva and Vagina Module – 19 • Pre-operative preparation • Post-operative complications and its management

INDUS MEDICAL COLLEGE
FINAL PROFESSIONAL MBBS 2020-21
DEPARTMENT OF
MEDICINE

DEPARTMENT OF MEDICINE

Teaching Faculty

S. No	Name	Designation
1	Prof. Rafi Ahmed Ghori	Professor & Head of Department
2	Prof. Ghulam Hussain Baloch	Professor
3	Prof. Bikha Ram Devrajani	Professor
4	Prof. Naila Masood	Professor
5	Prof. Mukhtiar Hussian Jaffery	Professor
6	Dr. Muhammad Nouman Shaikh	Associate Professor
7	Dr. Dolat Singh	Assistant Professor
8	Dr. Sadia Nizamani	Assistant Professor
9	Dr. Rabeel Nawaz laghari	Assistant Professor
10	Dr. Muhammad Khalid	Sr. Registrar
11	Dr. Muhammad Awais memon	Sr. Registrar
12	Dr. Abdul Rauf	Registrar
13	Dr. Muhammad Arshad	Registrar
14	Dr. Jawed Aslam kakepoto	Registrar
15	Dr. Iraj	Registrar
16	Dr. Akber Ali	Registrar

Final year Syllabus for the Subject of Internal Medicine & Two Allied Subjects

Integrated modular curriculum

Integrated modular curriculum for the subject of Internal Medicine and two Allied Subjects to be covered in final year MBBS in Internal Medicine and allied i-e Pulmonology and Gastroenterology.

The syllabus of Internal Medicine Module in IMC will be taught in four Wards of department in a structured manner. Implementation of Allied I.e. Pulmonology and Gastroenterology will be executed by respective subspecialty departments in consultation with chairman of Internal Medicine department. Integrated curriculum allows students to relate principles of anatomy, physiology, pathology, and pharmacology to clinical scenarios. This comprehensive framework not only enhances understanding, but also improves clinical reasoning, decision-making, and problemsolving skills. By incorporating active learning methods, such as case- based discussions, simulation exercises, and interdisciplinary teamwork, students are equipped to address comprehensive patient care.

Curriculum also emphasizes professionalism, ethical consideration, and effective communication, preparing students to provide empathetic, patient-centered care. It also promotes self-directed learning, required for thriving in a rapidly changing medical education. Thus, the integrated approach ensures that future doctors are competent, confident, and prepared to meet the challenges of healthcare delivery.

RULES AND REGULATIONS

1. Daily timings for medicine posting 11:00AM – 3:00PM
2. 75% of class attendance is mandatory to appear in end of rotation test.
3. After 11:00 a.m. Students are considered to be late and three late coming will be count as one absent.
4. Attendance of all the sessions will be mandatory for attendance of the day.
5. Bed allotment of students will be done and all students are supposed to follow their patients accordingly.
6. Formative assessment in form of end modular test will be taken multiple times throughout the rotation while summative assessment will be arranged for last 2-3 days of rotation (clinical examination & SBQs).
7. OPD timing will be strictly followed

PROGRAM

5th-year medicine posting comprises 12-weeks (2.5-weeks/ Ward and one week in allied) of clinical rotation in department of medicine. Students go through the rotations in Gastroenterology and Pulmonology wards

TEACHING/LEARNING STRATEGY: During rotation, students will learn through

- Case-based learning
- Bedside clinical teaching sessions
- Flipped classrooms
- Seminars
- Role play/role modeling
- Outpatient-based teaching
- Interactive lectures

- working as a team with postgraduates and senior colleagues (house officers)

During their evening postings, students also visit Emergency patients under the supervision of medicine residents and then follow the patients from admission till discharge.

Case base learning:

Students present the history and examination of a patient the then differential diagnosis, investigations and management is discussed in detail **Bedside teaching:**

History taking, clinical examination, and counseling skills are taught and practiced at the bedside or at OPD as task of the day **Flipped Classroom:**

Students prepare for the class by going through provided study material in the form of power point presentations, articles, videos, case history or topic then they come to the classroom for to solve cases, quizzes, practice problems and engage in team work.

Seminar: Students present PowerPoint presentations in small groups of 3-4 students on assigned topics.

OPD: Students go to OPD a in small groups

Clinical skills: Students master their examination, procedural, and counselling skills.

Interactive lectures: Small group discussions on specific topics, scenarios, or clinical cases to enhance the active participation of students.

Assignments / Self Studies: Students participate in unsupervised group discussions where they discuss and research their assigned topics and also take follow-up notes of pediatric ward patients.

Objectives (Intended outcome) of the Internal Medicine & Four Allied modules: By the end of the course of Internal Medicine (and Allied Disciplines) and for each of the conditions listed in these modules, final year MBBS students will be able to:

- discuss the etiology, risk factors, clinical presentations and relevant investigations for each of conditions/disease
- correlate the conditions' pathophysiology with signs and symptoms
- justify differential diagnoses and diagnoses on the basis of history, examination findings and investigation reports
- discuss outlines of treatment plans for each
- explain plans for prevention of conditions where appropriate
- deliberate on complications and their principles of management

Course Content : We have divide the course contents into 9 modules

Module I Blood (Medical Ward)

- Iron Deficiency Anemia
- Hemolytic Anemia and Related Disorders.
- Aplastic Anemia
- Haemoglobinopathies
- Megaloblastic Anemia
- Blood Transfusion And Complications

Module I Oncology (Hematological Malignancy) (Medical Ward)

- Acute Myeloid Leukemia
- Acute Lymphoblastic Leukemia
- CLL
- CML
- Myeloproliferative Disorders
- Lympho Proliferative Disorders
- Multiple Myeloma
- Myelodysplastic Syndrome

Module III Bleeding Disorders (Medical Ward)

- ITP
- Hemophilia
- DIC
- Coagulation Disorders
- Thrombolytic therapy
- Anti-coagulants

Module IV INFECTIOUS DISEASES (Medical Ward)

- Malaria
- Rabies
- Corona virus infection and related disorders
- Sexually transmitted infections and related condition
- Pyrexia of unknown origin/Sepsis/septic Shock
- Amebic liver Abscess
- Hydatid Cyst

Module V Musculoskeletal system (Medical Ward)

- Approach to joint disorders
- SLE
- MCTD and overlap syndrome
- Rheumatoid arthritis
- Osteoarthritis
- Osteoporosis and osteomalacia
- Sjorgen's Syndrome
- Systemic sclerosis
- Poly arthritis nodosa
- Gout
- Wegner's granulomatosis
- Ankylosing Spondylitis
- Psoriatic Arthritis
- Paget's Disease
- Reactive arthritis
- Pott's Disease

Module VI Poisoning (Medical Ward)

- Paracetamol Poisoning
- Organophosphorus Poisoning
- Snake Bite
- Black stone Poisoning
- Salicylates Poisoning
- Opioid Poisoning
- Benzodiazepine Poisoning

Module VII ENDOCRINE AND METABOLIC DISEASES (Medical Ward)

- Diabetes and its complications
- Polyglandular failure
- Approach to hypogonadism
- Approach to hypoglycemia
- Dyslipidemias and treatment

Module VIII Genetic & Geriatric (Medical Ward)

- Down's syndrome
- Kline felter's syndrome
- Marfan's syndrome
- Turner's syndrome
- Health problems of the elderly
- General Principles of treating the elderly
- Patient Safety : How to Ensure

Module IX Multisystem (Medical Ward)

- Acute Pulmonary Edema
- ARDS
- Shock
- Hemochromatosis
- Wilson's Disease
- primary biliary cirrhosis
- Autoimmune Hepatitis
- Alcoholic Liver Disease
- MASH & MAFLD
- Hepatocellular Carcinoma

PROCEDURES

By the end of the course student should acquire skills in common pediatric procedures according to the following level of competency **LIST OF PROCEDURES:**

LEVEL: 1 Able to perform under the direct supervision:

1a; on a mannequin 1b; on simulator

LEVEL: 2 Able to perform under indirect supervision

PROCEDURE	LEVEL
Instruct patients in the use of devices for inhaled medication, Nebulization	2
Prepare and administer injectable (intramuscular, subcutaneous, intravenous) drugs	1
Prescribe and administer oxygen	2
Carry out intravenous cannulation	2
Carry out safe and appropriate blood transfusion	2
Carry out male and female urinary catheterization	2
Carry out nasogastric tube placement	2
Lumber puncture	1
Measure capillary blood glucose	2
Blood sampling Carry out arterial blood gas and acid base sampling from the radial artery in adults	2
Set up an infusion	2

INDUS MEDICAL COLLEGE
FINAL PROFESSIONAL MBBS 2020-21

DEPARTMENT OF
Pulmonology

DEPARTMENT OF
Gastroenterology

ALLIED MODULES

DEPARTMENT OF PULMONOLOGY (CHEST MEDICNE)

S. No	Name	Designation
1	Prof. Dr. Naveed Inayat	Professor & Head of Department
2	Dr. Gulzar Qureshi	Senior Registrar
3	Dr Kashif Ali	Senior Registrar

Day	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Topic for Tutorial-Approach to patient	Approach patient with Acute Dyspnea (Bronchial Asthma, Pulmonary Edema and Pulmonary embolism)	Approach to patient with chronic dyspnea and chronic chough (Chronic Obstructive Pulmonary Disease-COPD with complications, Interstitial Lung Disease-ILD)	Approach to patient with pneumonia & Lung Abscess	Approach to patient with Pleural effusion & Pneumothorax	Approach to patient with Pulmonary Tuberculosis
Small Group Discussion	Chest-X-ray Interpretation of normal/ Ab normal Chest-X-ray	Approach to patient with Bronchiectasis & Cystic fibrosis/ Spirometry	Approach to patient with lung tumor	Pulmonary Hypertension/ Respiratory Failure/ARDS	Ward- Leaving Test

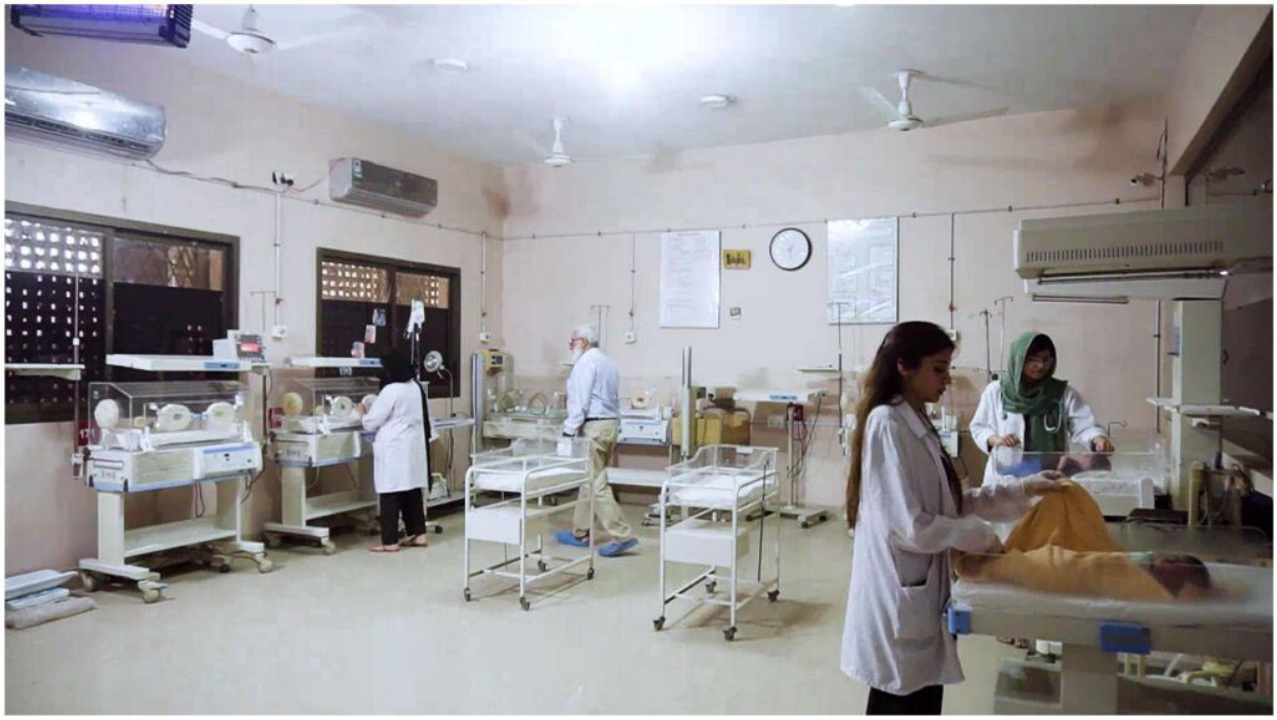
DEPARTMENT OF GASTROENTEROLOGY

S. No	Name	Designation
1	Dr Faizan Ali Memon	Senior Registrar
2	Dr Madiha Zaki	Registrar

Day	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Topic for Tutorial-Approach to patient	Approach to patient with Dysphagia and Dyspepsia- GERD APD (including H. pylori)	Approach to patient with Upper GI Bleed Hematemesis	Approach to patient with Lower GI Bleed Malena	Approach to patient with Jaundice Including Viral Hepatitis	Approach to patient with Acute and Chronic Liver Disease
Small Group Discussion	Common Lab tests to diagnose GIT & Hepatobiliary Diseases/ Interpretation of Liver Function Tests	Malabsorption syndromes; Celiac diseases, Abdominal TB, Intestinal Lymphoma	Acute & Chronic pancreatitis	Approach to patient with Acute & Chronic Diarrhea	Ward- Leaving Test

INDUS MEDICAL COLLEGE
FINAL PROFESSIONAL MBBS 2020-21
DEPARTMENT OF
PAEDIATRICS

\



DEPARTMENT OF PAEDIATRICS

Teaching Faculty

S. No	Name	Designation
1	Prof. Akbar Nizamani	Professor & Head of Department
2	Dr. Sher Muhammad	Assistant Professor
3	Dr. Naila Bai	Assistant Professor
4	Dr. Ifra	Senior Registrar
5	Dr. Sapna Sindhu	Senior Registrar
6	Dr. Bhawna	Senior Registrar
7	Dr. Sadiq Ali	Registrar
8	Dr. Mushtaq Ahmed Nizamani	Registrar
9	Dr. Ahmed Mujtaba	Registrar
10	Dr. Fayaz Ali	Registrar
11	Dr. Anum Khan	Registrar
12	Dr. Abdul Karim	Registrar
13	Dr. Nimra Shaikh	Registrar
14	Dr. Mukesh Kumar	Registrar
15	Dr. S. Zulfiqar Ali	Registrar

MISSION OF UNDERGRADUATE PEDIATRIC TRAINING:

To deliver excellence in teaching and learning and actively engage students to develop the minimum essential clinical knowledge, psychomotor skills, critical thinking decision making, and counseling and communication skills regarding the management of pediatric illnesses to ensure the delivery of safe patient care keeping in mind the contextual needs of the community and to effectively deal with global healthcare challenges.

PURPOSE OF STUDY GUIDE

To facilitate the student's learning by providing an outline of the modules, teaching methods, assessment process, and evaluation strategies in context to their themes and sub themes required to achieve the exit competencies in the field of Paediatrics. This study guide also contains details of the teaching schedule and assigned faculty members for each module whom they can contact anytime for guidance or queries.

RULES AND REGULATIONS:

1. Daily timings for pediatric posting is 11:00AM to 3.00pm, biometric (digital) and manual attendance both will be taken into account for this purpose. **2.** 75% of class attendance is mandatory to appear in end of rotation test.
2. After 11:00AM Students are considered to be late and three late coming will be count as one absent.
3. Attendance of all three sessions will be mandatory for attendance of the day
4. Bed allotment of students will be done and all students are supposed to follow their patients accordingly.
5. Formative assessment in form of end modular test will be taken multiple times throughout the rotation while summative assessment will be arranged for last 2-3 days of rotation (clinical examination & OSCE).
6. OPD timing will be strictly followed from 11.30 to 3:00 pm on respected days Except Friday timings of 11.00 to 12.00pm as per the task of the day whether outdoor or indoor.

Discipline-Specific Outcomes of Pediatric teaching (undergraduate).
At the end of the Pediatric clerk ship, the students should be able to:

1. **Take the appropriate history**, of patients taking in to consideration the age, birth history development, socioeconomic status, family, nutritional, and immunization aspects.

2. **Demonstrate Physical examination skill** that reflects consideration of clinical presentation and comfort according to age and development of child.

3. **Formulate problem list of active and chronic issues**, including a differential diagnosis of their pediatric presentations. A safe and patient-centered approach should be used for the diagnosis of major presenting problems encountered in pediatrics by using clinical reasoning skills based on the following:
   - o Relevant basic and clinical science knowledge and Evidence-based medicine.

4. **Select the most appropriate investigation** relevant to each of the presenting clinical scenarios with justification for its selection o Septic screening
   - Metabolic workup o
   - Screening test o
   - Radiological
   - investigation

5. **Develop a management plan** for each problem on the problem list, justify it, interpret data, and learn to identify and manage critical and acute pediatric illnesses.

While presenting a management plan o Evidence-based recommendations should be considered. o Basic and clinical science concepts should be applied.

6. **Demonstrate proficiency in specific procedural skills.**
7. **Demonstrate practical communication skills with the patient's family.**
   - Establish rapport with children
   - Counseling of patients regarding common pediatric presentation
   - Communicate the result of pediatric history and physical examination in a well-organized written and oral report.
8. **Demonstrate collaboration with other team members** as a part of a multidisciplinary team in caring for children. Work as a team in solving clinical problems as in Case Based Learning (CBLs) during the pediatric rotation.
9. **Able to demonstrate professionalism.** Professional behavior in the form of:
   - Punctuality
   - Expresses awareness of emotional, personal, family, and cultural influences on patient well being
   - Respectable and professional dressing, including wearing a white coat.
   - Demonstration of respect and courtesy towards patients and classmates.
10. **Ensure patient safety**: The student should be aware of and practice the principles of patient safety, which include.
    - Understanding and learning from errors
    - Engaging with patients and caregivers
    - Being an effective team player
    - Practicing infection control
    - Improving medication safety
11. **Identify and access information/resources on evidence-based pediatric practice.**
    - Demonstrate continuous learning
    - Participate in departmental Continuing Medical Education activities to update their knowledge.

PROGRAM

5^{th}-year MBBS Pediatric clinical posting comprises 8-weeks (4-weeks/ unit) of clinical rotation in pediatric department. Students go through the pediatric outpatient clinic, the EPI clinics, pediatric ward, pediatric ICU, and Neonatal ICU.

TEACHING/LEARNING STRATEGY: During rotation, students will learn through

- Case-based learning
- Bedside clinical teaching sessions
- Flipped class rooms

- Seminars
- Role-play/role modeling
- Outpatient-based teaching
- Interactive lectures
- Working as a team with postgraduates and senior colleagues (house officers) during their evening postings, students also visit Emergency pediatric patients under the supervision of pediatric residents and then follow the patients from admission till discharge.

PAEDIATRICS 5th YEAR CLINICAL TEACHING SCHEDULE

TIME	ACTIVITY
08:30 to 09:30 am	Introduction of the task by lead facilitator And brief description / demonstration on the topic
09:30 to 10:30 am	History Taking/bed side teaching
11:00 to 12.00 pm	Case based learning/Interactive lecture
12:00 to 01:30 pm	Practical task and clinical examination demonstration by lead facilitators /OPD/clinical skills
1:45 to 3.00 pm	Summarization of the task, feedback and assignment for next day

Case base learning: Students present the history and examination of a patient the then differential diagnosis, investigations and management is discussed in detail

Bedside teaching: History taking, clinical examination, and counseling skills are taught and practiced at the bedside or at OPD as task of the day

Flipped Classroom: Students prepare for the class by going through provided study material in the form of power point presentations, articles, videos, case history or topic then they come to the classroom for to solve cases, quizzes, practice problems and engage in team work.

Seminar: Students present PowerPoint presentations in small groups of 3-4 students on assigned topics.

EPI/OPD: Students go to OPD and EPI Center in small groups to learn Vaccination and practice clinical skills, mainly focusing on IMNCI.

Clinical skills: Students master their examination, procedural, and counseling skills.

Interactive lectures: Small group discussions on specific topics, scenarios, or clinical cases to enhance the active participation of students.

Assignments / Self Studies: Students participate in unsupervised group discussions where they discuss and research their assigned topics and also take follow-up notes of pediatric ward patients.

CPC organized by Paediatrics Department:

1. Components of EPI program its success and failure.
2. EENC and KMC when and where.
3. CMAMprogramitsroleinpreventionofmalnutritioninchildrenunder5.
4. Updates in asthma management in children. **Research projects:**

1. Toidentifytheriskfactorsforfailureofimmunizationinchildrenunderone year.
2. To evaluate the risk factor formal nutrition in children.
3. Reasonsforlackofexclusivebreastfeedingininfantsunder6months.
4. Association of pneumonia with malnutrition.

ASSESSMENT: Students go through formative and summative assessments in their 8 (4) weeks of clinical rotation.

Formative assessment:

Formative assessment focuses on learning and improvement of students by giving them specific tasks and providing them constructive feedback.

1. End Modular test: That will be taken after end of each module. Though that will be formative but we will assign 5% weightage.
2. Structured Bedside Assessment: is a method of formative assessment in which groups of 4-5 students are observed while they perform clinical skills, followed by structured feedback. by facilitator and co facilitators.
3. TBL Team based learning: taken after some modules which are cognitively rich. Though that will be formative because feedback will be given but we will assign 5% weightage as well.

Summative Assessment: Summative assessment focuses on cumulative evaluation of the student learning. Its further divided into Continuous assessment and End of rotation test. 20% of the total marks are carried to the final year university-based assessment at the end of the course.

Marks assigned on Assessment:

Continuous assessment has 40% weightage, and it has following components

- End module assessment 5X8=40
- TBL 5x2=10

Mandatory requirement to appear in final end rotation assessment:

- Attendance/punctualityduringclinicalpostingincludingEveningposting
- Logbook (history and daily work record)
- Submission of the assignment.

End of rotation test: 50%

- Students should submit a clinical Log book at the end of their rotation in Pediatrics.
- 75%attendanceisrequiredtobeeligiblefortheend-of-rotationtest.
- In summative assessment, students will be examined for
- Short case and long case 20marks
- Ten stations of OSCE (static and interactive)10x3=30

APPENDICES

APPENDIX(A)

Content: We have divide the course contents into 9 modules

<table>
<tr>
<td><u>Module I Introduction module</u>
• Overview of Pediatric Medicine
• Overview of growth and development
• Pediatric history taking (inpatient)
• Pediatric history taking and examination (outpatient)
• Physical examination</td>
<td><u>Module I Neonatology</u>
ENCC, HBB
• Sick young infant (neonatal Sepsis)
• Neonatal Jaundice
• Prematurity with complications
• Birth Asphyxia with complications
• Breast feeding counseling.</td>
</tr>
<tr>
<td><u>Module II Pediatric Infections</u>
• EPI Program
• EPI Disease
• Non-EPI Diseases</td>
<td><u>Module III Nutrition</u>
• Normal Nutrition/IYCF
• CMAM/SAM
• Micronutrient deficiency
• Wasting/Obesity</td>
</tr>
<tr>
<td><u>Module IV Blood</u>
• Anemia: Nutritional & Hemoglobinopathies, Bone marrow aplasia
• Bleeding: Hemophilia, ITP, Won Willebrand,
• Leukemia, Lymphoma
• Blood transfusion Protocols and reactions</td>
<td><u>Module V Neuropsychiatry</u>
• Brief introduction on development
• CNS infections with complications
• Epilepsy/Cerebral Palsy
• Small/ large Head
• ADHD/Autism</td>
</tr>
<tr>
<td colspan="2"><u>Module VI Cardio/Respiratory Diseases (Unit-II)</u>
• Upper Airway disease: Croup, Epiglottitis, Foreign Body inhalation
• Lower Airway: Asthma, Pneumonia & TB cover in infections module
• X-ray Interpretation
• Poison and Shock will be covered in this session.
• Congenital Heart Disease: Cyanotic and Acyanotic CHD with complications.
• Rheumatic Heart Disease / Congestive cardiac Failure / Myocarditis
• Essential Hypertension</td>
</tr>
<tr>
<td><u>Module VII GIT & Hepatology</u>
• Acute diarrhea cover in infections
• Chronic Diarrhea, Celiac and cystic fibrosis
• Viral Hepatitis/ CLD and portal hypertension</td>
<td><u>Module VIII Renal & Endo</u>
• Nephrotic syndrome
• AGN &Renal failure
• UTI
• CKD/Short stature
• Thyroid Problem Diabetes Mellitus</td>
</tr>
</table>

APPENDIX (B) List of mandatory Examination Skills

- Measure and interpret height, weight, and head circumference, calculate BMI and plot these readings on a growth chart.
- Measure and interpret vital signs
- Palpate for fontanels and suture lines
- Elicit primitive reflexes
- Palpate all pulses including femoral
- Assess the lumbosacral spine
- Perform Developmental examination
- Performa thorough general physical examination
- Perform a thorough Systemic examination including Abdominal, respiratory, central nervous system and cardiovascular system examination.

APPENDIX(C)

PROCEDURES: By the end of the course student should acquire skills in common pediatric procedures according to the following level of competency

LIST OF PROCEDURES:

LEVEL:1 Able to perform under the direct supervision:

1a; on a mannequin 1b; on simulator

LEVEL:2 Able to perform under indirect supervision

PROCEDURE	LEVEL
Instruct patients in the use of devices for in haled medication	2
Prepareandadministerinjectable(intramuscular,subcutaneous,intravenous) drugs	1
Prescribe and administer oxygen	2
Carry out intravenous cannulation	1
Carry out safe and appropriate blood transfusion	1
Carry out male and female urinary catheterization	1
Carry out nasogastric tube placement	1

Resource Material for Final Year Teaching – Department of Paediatrics, IMC

- **Nelson Textbook of Pediatrics**, 21st Edition
- **Nelson Essentials of Pediatrics**
- **Current Diagnosis & Treatment Pediatrics**, 23rd Edition
- **Pakistan Pediatric Association Textbook**
- **Illustrated Pediatrics** by Tom Lissauer

WHO Publications & Guidelines

- WHO publications on IMNCI
- GINA Guidelines: Global Strategy for Asthma Management and Prevention
- Global Database on Child Growth and Malnutrition
- WHO publication on Tuberculosis
- Expanded Program on Immunization (Pakistan)

Clinical Methods

- Macleod's Clinical Examination
- Hutchison's Clinical Methods

Department of Paediatrics, IMC

Teaching Schedule – Final Year MBBS

Assessment

Indus Medical College Tando Muhammad Khan is affiliated with Liaquat University of Medical and Health Sciences Jamshoro for assessment. College ensures facilitating students to appear in the examination at University and holding of the components of examination at its campus. Transparency, decorum and fairness is ensured at each aspect of assessment. Periodical review is done of the results of each session to find out the strength and weaknesses of learning, teaching and curricular issues to be addressed.

Assessment Areas

A separate examination department in liason with concerned officials of the University Controller of Examination has been established. A policy defining clear process of transparent assessment has been devised in liason with University. Policy ensures that assessment method are compatible with instruction methods and helpful in achieving the outcomes as outlined earlier. It ensures that all domains of competencies in the area of Knowledge, Skills, Attitude , Professionalism and Communication are part of the assessment.

Assessment Review

All evidence based assessment methods like SBQs, SEQs, OSPE and OSCE are applied in the assessment process. A Quality Assurance Cell in collaboration with university ensures transparent and evidence based procedures before, during and after the assessment. External examiners are part of paper setting and practical examinations. Appeal system for students is as per university rules. Assessment standards are reviewed and set for items used in examinations.

1. Final Year MBBS Examination:

To be held at the end of the 5th year in the following subjects:

(a) Medicine including Psychiatry & Dermatology Theory	
Paper-I	135 Marks
Internal Evaluation	15 Marks
Paper II	135Marks
Internal Evaluation	15 Marks
Total	300 Marks
Clinical/Practical Exam	
Clinical	240 Marks
OSCE	30 Marks
Internal Evaluation	30 Marks
Total	300 Marks

(b) Surgery including Orthopaedic & Anaesthesia Theory	
Paper-I	135 Marks
Internal Evaluation	15 Marks
Paper II	135 Marks
Internal Evaluation	15 Marks
Total	300 Marks
Clinical/Practical exam	
Clinical	240 Marks
OSCE	30 Marks
Internal Evaluation	30 Marks
Total:	300 Marks

(c) Obstetrics and Gynaecology	
Paper I	90 Marks
Internal Evaluation	10 Marks
Paper II	90 Marks
Internal Evaluation	10 Marks
Oral& Practical	180 Marks
Internal Evaluation	20 Marks
Total	400 Marks

(d) Paediatrics	
Theory	90 Marks
Internal Evaluation	10 Marks
Oral& Practical	90 Marks
Internal Evaluation	10 Marks
Total	200 Marks

Standard 13: Students

Indus Medical College Tando Muhammad Khan is engaging their students in management, delivery as well as evaluation of their services by involving them as member in different academic committees of the Institute. Their suggestions and ideas are always respected and welcomed by the institutional management and leadership. They are always involved in curricular as well as extra -curricular activities. They are always being motivated by arranging different seminars and workshops from national facilitators.

Admission Policy

The Medical College offers a five-year Bachelor of Medicine, Bachelor of Surgery (MBBS) programme. The programme is open to all academically qualified candidates without consideration to gender, religion, race, creed, colour or domicile. Students from anywhere in Pakistan and overseas may apply as per National and Provincial government policies approved by PM&DC. Indus Medical College believes in fair and merit-based admissions for the candidates from around the world. There are no quotas, reserved seats or admissions against donations. Admission policy strictly follows the guidelines of PM&DC. Merit list as issued by official national admission test conducting body/ university and endorsed by PM&DC is implemented.

Student Support Program

Student Support Program has been devised to help students in loan schemes, debt schemes and financial needs of students.

There is student counseling office to deal and fulfill students' psychological, academic and career requirements. For career counseling time to time certain seminars are arranged at institutional level. The teachers are available always in their corresponding departments to deal with their daily academic requirements even after the lectures to discuss and sit with them

Students' academic records are always kept confidential in their corresponding departments, the examination branch and student record office of the Institute

Students' medical records are also confidentially kept in the student record office. A dedicated person has been appointed for record keeping in student record office**.** Only authorized persons have access to the records if genuinely required and allowed by the registrar office in the benefit of student.

Students are invited to attend curricular committee meetings from time to time and their suggestions given due weightage. Their perceptions, suggestions and problems regarding curriculum are being notified and discussed with the senior members of the curricular committee and medical education department in different meetings. Students from each batch are voluntarily invited to be the part of sports committee and other extra-curricular activities. They also play role as volunteer in different seminars, lectures, academic programs, Pakistan day, culture day and top ten ceremonies to guide the participants and to help the management.

They actively participate in trilingual declamation contest at different universities.
On many occasions, they have presented research papers in different symposia.
Students can contact "student affairs" office at in case of any discrepancies.
Funds and finances are allocated for students support as per PM&DC policy.

This Institute has clear policy to systemically seek, analyze and respond to student feedback about the processes and products of educational programmes through students presentation in different committees i.e., curricular committee, sports committee, extracurricular committee. They have been provided free access to preventive and therapeutic health services available at Indus Medical College Hospital. Institutional policy for health care policy for students and faculty have been approved.

Students Code of Conduct:

Policy Name: Student Code of Conduct and Disciplinary Procedures Devised

By: Department of Medical Education

Approved by: Academic Council
Date of Approval: January 5, 2014
Date of Revision: March 11, 2019
Contact Office: Office of the Registrar / Administrative Officer

- As a part of your learning, you will have privileged access to people, and to their health information.
- The Student Code of Conduct and Disciplinary Procedures has been planned with the primary objective of safeguarding exemplary behavior and conduct of students which they can achieve by exhibiting the highest degree of moral and ethical values.
- The trust that people place in doctors carries considerable responsibility, hopes and expectations regarding your behavior.
- It is imperative that you are aware of these responsibilities and expectations from the beginning of your medical training.
- Any breach of these expectations could result in serious repercussions for you, your continuing medical education and your later career.
- Indus medical college is committed to support you to uphold this Code and to assist you throughout your studies, and encourages you to know where and how to access available support services. You should think of yourself as a doctor-in-training, rather than as a student in theoretical studies.
- Though the degree of your involvement with patients, families and the wider community may initially be small, from now on you will be meeting people as part of your education as a doctor.
- As you progress through your training you will be increasingly part of the health care team.
- You represent the Medical Institute, and the medical profession, whenever you meet people in this way.
- Your behavior as part of health care system, should rationalize the trust the public places in the medical profession.
- All students will diligently apply themselves to their studies.
- Students shall attend lectures, tutorials, seminars, practical sessions, clinics and ward assignments, examinations and other scheduled courses and activities, in accordance with the 85 % attendance requirements of the affiliated University PMDC
- Each student shall be solely responsible for completing his / her scheduled examinations and attending other academic activities, as per his / her programme requirements.
- Students will respect the confidentiality of information pertaining to all clients of the IMC and IMCH including patients and their records, and will use it in no other circumstances than for authorized academic and professional purposes.
- The above mentioned principles therefore apply right from the start. We ask

that you read through these principles and sign this document acknowledging your agreement to obey with them.

Disciplinary Committee

- A disciplinary committee and students grievances committee ensures disciplinary action or provides remedies in case of student's status being affected due to any reason.
- The disciplinary committee will be formed and empowered by the head of the institute / Indus Medical College
- They have been informed about code of conduct at Indus Medical College as medical professional student on very first day on orientation day. Code of conduct is available for dissemination for students to be informed beforehand.
- Transfer policy is as per PM&DC guidelines.
- Student's disciplinary committee ensures that students are not participating in any political activity.
- Ramps and lifts on hospital gate way are available for handicapped students. Scholarship program and support program is available for meritorious and deserving students. Student's exchange, national and international rotation, electives & internship program have been devised.

Disciplinary Offences:

Any form of intimidation, insult, abusive language, assault, molestation or harassment of students, staff, faculty, patients or other clients, within or outside the University.

Any form of unauthorized picketing, rallies, demonstrations or organized obstructions of any student / University / University Hospital function in any manner whatsoever.

Any attempt to conceive, design or affect any plan of whatever nature whose object or consequence is to disrupt academic programmes of the University or its operations.

Malicious acts, theft, willful damage or misuse of University's or any third party's property.

Students residing or availing the hostel and its facilities shall comply with all the hostel rules and will conduct themselves in a manner that respects the rights of other resident students, faculty and staff of the University.

Unauthorized housing of persons in the hostel or other buildings at the college.

Raising funds, accepting donations or engaging in similar activities for and on behalf of the college without a prior written approval of the Institute

Smoking in prohibited in settings of the college.

Procurement, possession, use, sale or display of any weapon, including firearms or any other contraband item on campus or at any University-related event.

Procurement, possession, use, sale and consumption of banned drugs, alcohol or other contraband items on campus or at University related events.

Attendance on campus or at University-related events in an intoxicated state or under the influence of banned substances.

Any act of violence causing injury or damage to any person or property at the University.

Providing wrong information, giving false and / or fabricated evidence, deliberately concealing material facts or information to the University in any proceedings and inquiries carried out at any forum by the University.

Committing or involvement in any act of deceit, fraud, forgery with the University, students, staff or faculty.

Abuse, unauthorized or fraudulent use of University computers, network systems or computer files.

Failure to comply with or any act in violation of, contravention of or disregard for published University policies, regulations or failure to comply with the direction of University officials acting in performance of their duties.

Any form of intimidation, insult, abusive language, assault, molestation or harassment of students, staff, faculty, patients or other clients, within or outside the University.

Anti-Harassment Policy:

Government of Pakistan anti-harassment policy document has been adapted by the academic council of IMC. It encompasses all provision for protection of women at workplace.

Medical Student Dress Code

All students should adhere to dress standards which satisfy the requirements of:

- Workplace Health and Safety
- Patient Safety
- Infection Control
- Creating a professional and positive public image
- Identification of students to patients / staff
- Comfort and security

The dress standard must be adhered to whenever a student is working in a

Professional capacity.

Standards

- Dress standards should be appropriate to the work being performed.
- Hair must be neat at all times. Long hair should be tied back when working in clinical areas.
- Jewelry and body piercing should be discreet and appropriate to patient care.
  It should not create an occupational hazard.
- Nails should be short, clean and neatly trimmed, particularly for patient safety and comfort.
- In areas where there is an infection control risk students should not wear nail polish or acrylic nails.
- Tattoos must be covered.

Footwear

- Footwear should be professional and fully enclosed.
- In Operating Room Suite students must wear footwear that is easily cleaned and non-slip.

Professionalism is one of the core values of Indus Medical College, Tando Muhammad Khan
The dress of medical students should reflect this, while in the premises of the college and hospital.