



GENERAL SURGERY
STUDY GUIDE
MBBS
2024



BAQAI MEDICAL COLLEGE
BAQAI MEDICAL UNIVERSITY

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VISION & MISSION

Baqai Medical University Vision Statement:

Baqai Medical University is a community based and community oriented, center of excellence striving to mold students to become competent and caring health professionals, groomed to be social leaders capable of improving health, education and socioeconomic well-being locally, nationally and globally.

Baqai Medical University Mission Statement:

The mission of Baqai Medical University is to be recognized as a center of excellence in education, research, patient care and community services by producing highly capable and knowledgeable professionals.

Baqai Medical College Vision Statement:

Our vision is to enhance the access and excellence in medical education and research, with the aim of capacity building of students and faculty through innovations, and science and technology competencies, to achieve rapid and sustainable health. The medical graduate thus produced will be informed and trained enough to serve the community better, and to be advisor to the national and international health organizations.

Baqai Medical College Mission Statement:

The mission of the Baqai medical college is to produce medical graduates, who are accomplished individuals and have skills for problem solving, clinical judgment, research & leadership for medical practice at the international level and are also aware of the health problems of the less privileged rural and urban population of Pakistan.

Outcomes of the MBBS Program

By the end of five years MBBS program, The Baqai Medical College graduate will be able to:

- Write and report focused history, perform physical examination, formulate a diagnosis and management plan for common health problems.
- Utilize knowledge of basic and clinical sciences for patient care.
- Apply evidence-based practices for protecting, maintaining and promoting the health of individuals, families and community.
- Identify problems, critically review literature, conduct research and disseminate knowledge
- Lead other team members as per situational needs for quality health service.
- Acquire a professional behavior that embodies lifelong learning, altruism, empathy and cultural sensitivity in provision of health care service.

POLICIES AND PROCEDURES

Code of Conduct and Maintenance of Discipline of Students Regulations

Under section 25(e) BMU Act.1996

All University students shall be under the full disciplinary control of the University. No students shall be allowed to participate in politics. The action against the act of indiscipline shall include fines, debarring from attending class and cancellation of admission, depending on the gravity of indiscipline.

The following shall constitute acts of indiscipline for which action may be taken against the student or students:

- (a) Breach of any rule of public morals, such as:
 - Use of indecent or filthy language;
 - Use of immodest dress:
 - Use of undesirable remarks or gestures; and
 - Disorderly behavior, such as shouting, abusing, quarrelling, fighting and insolence.
- (b) Defiance of authority
- (c) Action, defamatory of and derogatory to Islam
- (d) Immorality
- (e) Being found under the effect of an intoxicant or misuse of drugs including marijuana, LSD dope and other opioids.
- (f) False personation or giving false information or willful suppression of information, cheating or deceiving.
- (g) Inciting or staging a walk-out, a strike or an unauthorized procession.
- (h) Shouting of slogans derogatory to the prestige of the University or the reputation of its officers or teachers.
- (i) Visiting without a pass, places which are not to be visited without a pass.
- (j) Visiting places declared out of bounds for students
- (k) Every student must carry his / her Identity Card which will be open to examination and will be demanded at the time of entrance to the various University Faculties and functions.
- (l) No student will be admitted to the facilities of the library, transport or the canteen unless he /she are in possession of the Identity Card.

SURGERY DEPARTMENT MISSION

The mission of department of surgery is to provide the highest possible quality care for the patient through innovative clinical services and advanced surgery, state of the art educational programs and quality research, and training the health care professionals to be skilled surgical scientists.

1. Introduction: -

We welcome you to the first surgery clerkship and hope that your time here will be enjoyable and productive. Over the next eight weeks you will be exposed to a variety of patients with conditions that are commonly considered amenable to a surgical therapeutic approach. As expected by the curriculum committee, our approach to this course has been to provide the student with an exposure to surgical diseases that has been faced by our community.

The purpose of this manual is to provide you with the expectations of the clerkship/s and to offer you references that will assist you to succeed and to avoid confusion. Please read the information carefully so that you completely understand the learning objectives, the service structure, your responsibilities and priorities, and the policies for student evaluation.

Student will acquire the attitudes, skills, and knowledge of surgery necessary to function effectively as a physician upon graduation from the Baqai medical university. The appropriate resources and interactions with faculty and house staff will be provided but it is ultimately the students that are responsible for their own learning. The clerkships are structured for students who are self-initiating and highly motivated to seek out opportunities for learning.

A major element of the surgery clerkships is an emphasis on the development of clinical problem-solving skills. Our faculty believes that developing a sound approach to clinical decision-making is the most important skill to develop.

The student on the surgical clerkship is encouraged to develop not just as a technician, but more importantly to build a solid cognitive knowledge base, and critical thinking skills. This goal will require the student to participate in an appropriate blend of clinical and self-educational activities throughout the clerkship.

We believe that the interaction between student and faculty is a critical component of the clerkship experience.

Although interaction with surgical house staff is important, this interaction can never replace the active exchange between students and faculty. Faculty provides ongoing feedback to students, and they are role models exemplifying how surgeons approach problems and interact with patients, families and other professionals. The clerkship encourages all students to actively seek feedback from the physicians

with whom they work. This should be done on an ongoing, daily basis. A formal session with supporting documentation is required at the end of the course.

Finally, student should be aware about his activities, role, requirements and achievements throughout this course. The log book is designed to ensure a minimum level of standardized training and continuous informative evaluation.

This manual includes the following:

- 1- The main and specific objectives of the course.
- 2- Learning outcomes in domains of learning.
- 3- Description of cognitive skills to be developed.
- 4- Description of the interpersonal skills and capacity to carry responsibility to be developed.
- 5- Logbook, which includes:
 - a) A list of the clinical competencies and practical skills.
 - b) A list of general manual skills, and the communication skills which are commonly practiced in the course.
 - c) Standard forms for documenting the performance of required training activities, as well as the evaluation of the teachers.
- 6- Time table of lectures, seminars, tutorials, BST, ER, clinical SL and or activities.

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CURRICULUM OUTCOMES OF THE COURSE:

Outcomes of Surgery Course:

- 1) Acquisition of sound knowledge of general principles in surgery.
- 2) Description of the symptoms and signs of surgical cases & their radiological & laboratory investigations & general plan of treatment.
- 3) Development of problem-solving approach to common surgical problems and disorders.
- 4) Explanation of the pathogenesis of various surgical problems, diseases and their presentations.

Competency:

By the end of surgery course, the student should:

- 1) Show responsible and compassionate behavior with the patient and family, considering the cultural, social and economic background, and in dealing with all levels of education and abilities.
- 2) Use the required communication skills for taking appropriate clinical history and conducting clinical examination.
- 3) Appreciate the role of perfect understanding of basic science (anatomy, physiology, pathology, etc.) And the pathophysiological process relevant to surgical practice, in diagnosis and management of common illness in patient and community.
- 4) Be acquainted with the epidemiological profile of the population and society, their heritage, cultural, social, geographic and economic characteristics, and relationship of all these to surgical disease etiology and management.
- 5) Have the knowledge and skills necessary to identify the health problems of a patient in emergency situations, common endemic or epidemic diseases and disabilities, including health promotion, disease prevention, treatment, rehabilitation and follow up.
- 6) Opt for the wise selection of the most appropriate and cost-effective investigations to reach the proper diagnosis, considering the patient rights and abilities, and the available health system resources, weighing the pros and cons of surgical intervention.
- 7) Interact effectively with the surgical and other health teams, and appreciate the role of others.
- 8) Be able to work within and leading a team, in clinical practice and continuous learning in a problem-based style.

Cognitive:

Knowledge and skills to be acquired:

By the end of this course the students should be able to:

- 1) Reflect, through good attitudes, responsible and serious concern to the patient's problems and his family taking into consideration the moral and cultural characteristics of the society.
- 2) Explain to the patient, honestly and in simple terms, the surgical concepts of disease and surgical interventions, and show concern for their economic and social abilities in management choice.
- 3) Comply with the hospital system regarding uniform attendance, team work and ethical responsible behaviour.
- 4) Describe pattern of surgical disease, in various age groups, and recognise urgent/emergency surgical problems and critical conditions presented to him.
- 5) Take full medical history, with appropriate sequence and comprehensiveness in surgical ward, write it in a clear presentable way for others to read and understand.
- 6) Asked to examine a patient; prepare the appropriate setup for physical examination, carry out the examination in appropriate manner, sequence and comprehensiveness of all systems, relevant to surgical problems, write his notes in a clear way for others.
- 7) Select the relevant investigations regarding the available resources and cost effectiveness.
- 8) Integrate and interpret the results obtained from skills 5, 6 & 7 to reach probable diagnosis or suggest differential diagnoses of the problem presented.
- 9) Write an informative referral letter asking help on particular patient's problem.
- 10) Show ability and enthusiasm to promote health through health education and provision of primary health programs.
- 11) Deal effectively and efficiently with patients at various age groups who are presenting with chronic, malignant or emergency surgical problems.
- 12) Draw detailed plan of onsite management, transfer, resuscitation and list criteria of observing and monitoring a critically ill patient.
- 13) Describe causes, types and management protocols of burns, including fluid therapy, pain relief, short and late consequences and their management.
- 14) Prescribe fluid and electrolyte therapy, considering the acid-base balance of the body.
- 15) Describe the components of blood, origin, count and functions of blood cells, techniques and complications of blood transfusion.
- 16) Presented with any of the following real, verbal or written emergency problems; perform or suggest urgent lifesaving procedures, diagnose, manage or suggest steps of effective management of these conditions: multiply injured patients, shock, bleeding patient, coma, chest pain, cardiac arrest, convulsions, respiratory distress, acute abdominal pain, septicemia, intestinal obstruction, and diabetic ketoacidosis.

Psychomotor:

By the end of this course the student should be able to:

1. Take a detailed history from a surgical patient, relatives and others.
2. Perform a complete physical examination of a surgical patient.
3. Present a summary of the assigned case to a faculty member during a ward round.

Exposure to surgery is essential for all medical students for several reasons:

1. Surgical conditions are responsible for a significant proportion of elective and emergency referrals. All graduating doctors require knowledge of surgical principles and an understanding of the management of common surgical conditions for the rest of their career. A minimum level of competency is required to ensure good care for future patients seen within any branch of medicine.
2. Surgical wards and clinics provide an excellent environment to develop those clinical skills that are required of all medical students. They provide training in general medical skills such as history taking, physical examination, diagnostic formulation and management. They also provide an environment that allows development of non-clinical skills such as communication and team-working. There are often very rapid changes in a patient's condition, allowing for immediate reinforcement of learning and reflection on interventions.

It is more important that undergraduates have an adequate exposure to surgery during their training. The skills and knowledge gained are transferable to other interventional specialties and also are crucial to the care of patients provided by general practitioners and those in other specialties.

The final outcomes in surgical rotations include the following:

- To recognize and understand common surgical conditions.
- To recognize and understand emergency surgical presentations.
- To be aware of what treatment possibilities are available, including non-operative.
- To understand the principles of preoperative optimization.
- To understand postoperative complications.
- To understand the types and risks of anesthetic procedures.
- To be able to explain in general terms to a patient the implications of common surgical diseases.
- To have sufficient basic understanding of surgery to help with future career choice.

TEACHING METHODOLOGIES

Course Design: -

The training requirements are divided into 2 main categories which differ as regards methods of training and evaluation:

1. Theoretical part: which include:

Lectures: The formal lecture schedule is delivered by faculty within their own discipline and takes the form of didactic lectures. The subject matter of the lecture is circulated in advance so the students can prepare it.

Tutorials & Seminars: Students are assigned to a 'rotating tutorial' group and receive tutorials by different tutors within the area of surgery. A fixed topic is usually discussed by the tutors and as such they function as an adjunct to the formal lecture schedule delivered. Students are attached to surgical groups throughout the course and receive regular tutorials from the members of these groups in addition to the above-mentioned tutorials, as detailed in the individual team timetables.

The Following Common / Major Presenting Problems:

- Hernias including Abdominal Wall Hernias
- Pancreatic Diseases
- Biliary Tract Diseases
- Breast And Adrenal Diseases
- Colorectal And Anal Conditions
- Common Ambulatory Skin and Soft Tissue Problems
- Diseases Of the Esophagus
- Fluids And Electrolytes Imbalance
- Intestinal Obstruction
- Liver Diseases
- Malignant Diseases of the Skin
- Shock
- Spleen Diseases
- Small Intestinal and Appendicular Conditions
- Stomach And Duodenal Conditions
- Surgical Bleeding and Blood Replacement
- Surgical Infections
- Thyroid And Parathyroid Diseases
- Trauma
- Wounds And Wound Healing

2. Clinical Rotations:

This is where art of medicine is learned.

Students are assigned to all surgical teams for a period of 8 weeks whereby they attend outpatient's clinics, theatre, surgical day ward, ward rounds, case conferences and interdisciplinary meetings.

In these attachments, students are exposed to a wide spectrum of surgical diseases. By following patients through their initial presentation to the operating room and post-operative care, they observe the evolution and resolution of surgical disease processes. Teaching in the operating room and at the bedside in particular, the attachments provide the students the opportunity to actively expand their knowledge, develop technical and clinical skills and initiate relationships with patients, residents, faculty and staff. In these eight weeks, students are exposed to surgery and shown what it means to be a surgeon at all levels and see why surgery is such an exciting career.

You will be divided into small groups for this purpose to optimize your opportunities of learning, it is expected that every student should participate in these sessions and your teacher will facilitate that.

Clinical attachment: Refer to the sequential tasks of the clinical encounter; namely: history taking, clinical examination, discussing the diagnosis, formulating the plan of management, and follow-up.

Bedside teaching: Bedside sessions are designed to promote teaching and interaction with faculty members. A variety of methods for presentation are utilized by varying faculty members. Students will meet a faculty member on a designated ward and/or conference room and will have the opportunity to interact in a small group setting with fellow students and a faculty member.

Outpatient clinic: The student will be attending one clinic, taking history of pre & post-operative patient, observing how patient is being prepared. Each attending/service will be having clinics at least one day each week. If you are assigned to a particular faculty member, you should plan to be in clinic with that attending faculty member. If you are not assigned to a particular faculty member, then the chief of the service will direct you as to which clinic you should attend. Clinic is a great opportunity to meet patients preoperatively. It also provides a chance to follow patients through the entire process from preoperative evaluation through to the post-operative visit.

General Tips:

- Professional dress is required for all clinics. Sometimes you will be unexpectedly needed in clinic, so it is important to bring appropriate attire for clinic to work every day.
- Each attending has preferences. Ask the attending if they prefer you to see patients on your own or with a consultant.
- When seeing new patient, perform a complete history and physical examination. You will present to the attending.
- When seeing return patients perform a directed history and physical examination. Limit your interview and exam to the relevant information.
- If you don't know whether or not you should do something (i.e., take down a dressing), ask someone. Don't just assume you should skip it or assume you should do it.
- If the patient you see is going to be scheduled for the operating room, ask a consultant how you can help with the preoperative paperwork.
- Try to be efficient. The clinics are often overbooked and you need to be fast, but thorough.

Operating Theater: It is the stage in which practice integrated knowledge with skills, is being observed. Be on time for each case. You should arrive with the patient or even before. Cases typically start at 9:30 AM, but you are expected to show up after you finish up your morning lectures. Try to meet the patient preoperatively in the pre-care; you need to be diligent about checking on the room and the patient in the holding area.

General Tips:

- Introduce yourself to the operating room staff.
- Help to position the patient.
- Remove your mobile before scrubbing.
- You are a part of the team. Ask questions and be ready to participate. The team is counting on you and will get you actively involved.
- Understand that there is a time for questions and a time to be silent. If the situation seems tense or the team brushes you off, this may mean it is the wrong time for questions. Hold onto your questions, though, and ask them later.
- Wear appropriate attire – scrubs, scrub hat, mask, eye protection, and shoe cover.
- Always get your gloves out for the scrub nurse/tech. Ask if they need an extra gown for you.
- This is a great time for procedures – learn to place a Foley, start an IV, prep the patient, etc. Again, simply being present may not be enough. If there is something you would like to learn / how to do, ask.

- Be attentive during the case – how much you can help is directly related to your being aware of what is going on.
- At the end of the case, you can help to get the patient transferred to the recovery area– this includes getting the stretcher, helping move the patient, and learning to write post-op orders and prescriptions.

Emergency department (ED): ED Learning objectives are practical procedure-based scenarios, all of which can easily be accomplished in rotation. You will attend them for one day per week. A greater diversity of problems will be seen outside usual business hours. This can be quite hectic and appear disorganized. You must be motivated to participate and not wait for someone to suggest a task. The more involved you are, the easier it will be to complete the learning objectives. You should ask the nurse in charge or a doctor about the patient’s suitability for a procedure or a history / examination.

General helpful hints

- The more you show yourself to be interested; the more people will involve you. By asking questions and asking for opportunities to participate, you show that you are interested in learning. People respond positively to this and whether intentionally or not, they will end up involving you more. If you don’t know where you are supposed to be, ask someone. Your consultant is always around and can help give instructions or suggestions about where you might learn the most.
- Ultimately, you are responsible for your learning. You are not given a detailed syllabus for task like you were for lectures. This does not mean you don’t need to read and study. It simply means you will need to do self-directed reading. Think about what you do and don’t know well and read to fill in the gaps.
- Figure out what you need to know about surgery, ask yourself what you need to know about pre-operative clearance of patients for surgery or management of post-operative surgical complications.
- Ask for feedback on your performance at least once during your rotation. This is another great way to show you are interested in learning. Don’t accept “don’t worry about it, you’re doing fine” as an answer. There are things that even the best clinicians can do to take their learning to the next level. Be prepared, though, when you ask for feedback, you may get some negative feedback. This is not intended to hurt you or put you down. This is intended to be constructive and to help you find ways to improve as a clinician and as a team member.
- Respect the non-physician staff. The truly successful medical student will quickly learn that everyone involved in patient care can be a valuable resource for learning. Often other staff will have more time for teaching than the physicians. In general, you will find that if you ask, almost anyone will be happy to teach you.
- Lastly, and most importantly, have fun.

LECTURE SCHEDULE OF FINAL YEAR MBBS

NO	L.OBJ. REF.*	TOPIC
1	SURG-LEC-1	INTRODUCTION OF SURGERY
2	PLASTIC-LEC-1A	BURNS MANAGEMENT
3	SURG-LEC-2	SHOCK & HAEMORRHAGE
4	SURG-LEC-3	PRE & POST OPERATIVE PREPARATION
5	SURG-LEC-4	BLOOD TRANSFUSION
6	SURG-LEC-5	WOUND MANAGEMENT
7	PLASTIC-LEC-1B	BURNS MANAGEMENT
8	PLASTIC-LEC-2	SKIN GRAFTING AND SKIN FLAPS
9	ANES-LEC-1	SPINAL & LOCAL ANAESTHESIA, PAIN MANAGEMENT
10	SURG-LEC-6	TRAUMA MANAGEMENT
11	SURG-LEC-7	HEAD INJURY
12	ORTHO-LEC-1	PRINCIPLES OF FRACTURES
13	SURG-LEC-8	OBSTRUCTIVE JAUNDICE
14	SURG-LEC-9	SPLENOMEGALY
15	SURG-LEC-10	INTESTINAL FISTULAE & STOMAS
16	SURG-LEC-11	ACID - PEPTIC DISEASE
17	SURG-LEC-12	ACUTE ABDOMEN
18	SURG-LEC-13	PARATHYROID DISORDERS
19	SURG-LEC-14	SALIVARY GLAND DISORDERS
20	SURG-LEC-15	CHOLELITHIASIS & MINIMAL INVASIVE SURGERY
21	SURG-LEC-16	ACUTE PANCREATITIS
22	SURG-LEC-17	BENIGN BREAST DISEASES
23	SURG-LEC-18	CARCINOMA OF BREAST
24	SURG-LEC-19	GASTRIC CANCER/GASTRIC OUTLET OBSTRUCTION
25	SURG-LEC-20	DYSPHAGIA
26	SURG-LEC-21	BENIGN THYROID DISEASE
27	SURG-LEC-22	THYROID NEOPLASM
28	SURG-LEC-23	ACUTE APPENDICITIS
29	SURG-LEC-24	INTESTINAL OBSTRUCTION
30	SURG-LEC-25	COLORECTAL TUMORS
31	SURG-LEC-26	DIFFERENTIAL DIAGNOSIS OF NECK SWELLING
32	SURG-LEC-27	ANORECTAL DISEASE
33	SURG-LEC-28	ABDOMINAL WALL HERNIAS
34	URO-LEC-1	URINARY TRACT INFECTION & RENAL CALCULI
35	URO-LEC-2	BENIGN PROSTATIC HYPERPLASIA
36	SURG-LEC-29	VARICOSE VEINS
37	URO-LEC-3	SCROTAL SWELLINGS

***Learning Objectives Reference**

TOPICS FOR TUTORIAL

Week	Monday Dr. S.M Abdullah	Tuesday Dr. M. Danish	Wednesday Dr. Sidra / Dr. M. Abid	Thursday Dr. Abdul Ghaffar	Friday Dr. Shafatullah
1 st week	Gall bladder disease (biliary colic, cholecystitis) CBD - 2	Anterior Abdominal wall / Ventral wall hernia CBD - 1	Management of trauma (ATLS protocol) Tutorial - 1	Acute appendicitis CBD - 3	Introduction to plastic surgery & its implication Tutorial - 9
2 nd week	Gall bladder disease CBD - 2	Inguinal hernia CBD - 1	Acute Pancreatitis CBD - 4	Intestinal obstruction CBD - 9	Burns & its management Tutorial - 10
3 rd week	Acute Abdomen CBD - 14	Femoral hernia CBD - 1	Obstructive Jaundice CBD - 5	Varicose vein CBD - 7	Benign & malignant skin lesion Tutorial - 11
4 th week	Drains & tubes Tutorial - 2	Hyper / Hypothyroidism CBD - 11	Ca. Breast CBD - 6	Neck Swelling CBD - 11	Cleft lip & palate Tutorial - 12
5 th week	Sutures & dressings Tutorial - 3	Ca. Stomach CBD - 12	Achalasia CBD - 8	Preoperative care Tutorial - 6	Skin grafts and Flaps Tutorial - 13
6 th week	Counseling Tutorial - 4	Painful anal conditions (anal Fissure/Fistula/perianal abscess) CBD - 13	Ca. Esophagus CBD - 8	Postoperative care & complications Tutorial - 7	Diabetic foot Tutorial - 14
7 th week	X-Rays Tutorial - 5	Hemorrhoids CBD - 13	Colorectal Carcinoma CBD - 10	Instruments Tutorial - 8	Degloving injuries Tutorial - 15
8 th week	Revision	Revision	Revision	Revision	Revision

LEARNING OBJECTIVES:

Final Year:

BEDSIDE TEACHING:

At the end of the bedside session, the student will be able to:

- Record a pertinent history from the given patient so as to be able to reach a working diagnosis
- Perform a thorough clinical examination of a surgical patient.
- Present a summary of the assigned case to a faculty member during a ward round.
- Justify the correct steps of recording a history from a patient.
- Demonstrate the logical steps of examining a given patient
- Defend differential diagnosis of the given case.
- Prioritize the problem specific investigations needed for pre-operative workup for the given patient.
- Formulate a management plan for the given patient.

OUT PATIENT DEPARTMENT:

During OPD posting, student should be able to:

- Take a brief history from the given patient
- Carry out the relevant examination of the given patient.
- Defend the working diagnosis after history and physical Examination of a given patient.
- List the baseline investigations needed for pre-operative workup of the patient.
- Recommend a comprehensive management plan for the given patient including surgical procedures.

OPERATION THEATRE:

In operation theatre, the final year student should be able to

- Enlist the complete protocols for maintaining asepsis in theatre.
- Demonstrate basic principles of gloving and gowning.
- Describe the types of sterilization techniques and disinfection.
- Enlist the preoperative preparation and intraoperative care of the surgical patient.
- Classify the types of anaesthesia used in different surgeries.
- Explain various intraoperative complications encountered during surgery.

FOURTH YEAR MBBS

WARD:

At the end of the bedside session, the student will be able to:

- Record a pertinent history from the given patient so as to be able to reach a working diagnosis
- Perform a complete clinical examination of a surgical patient.
- Justify the correct steps of recording a history from a given patient.
- Demonstrate the logical steps of examining a given patient
- Defend differential diagnosis of the given case.
- Enlist the investigations needed for pre-operative workup of the given patient.

OUT PATIENT DEPARTMENT:

During OPD posting, student should be able to:

- Take a detailed history from the given patient
- Carry out the relevant examination of the given patient.
- Defend the working diagnosis after taking a history and physical Examination of a given patient
- List the baseline investigations needed for pre-operative workup of the given patient.

OPERATION THEATRE:

In operation theatre, student should be able to:

- Enlist the complete protocols for maintaining asepsis in theatre.
- Explain basic principles of gloving and gowning.
- Enlist the preoperative preparation and intraoperative care of the surgical patient.
- Classify the types of anaesthesia used in different surgeries.

THIRD YEAR MBBS

WARD:

At the end of the bedside session, the student will be able to:

- Record a pertinent history from the given patient so as to be able to reach a working diagnosis
- Justify the correct steps of recording a history from a given patient.
- Perform a complete clinical examination of a surgical patient.
- Demonstrate the logical steps of examining a given patient

OUT PATIENT DEPARTMENT:

During OPD posting, student should be able to:

- Take a brief history from the given patient
- Carry out the relevant examination of the given patient.

OPERATION THEATRE:

In operation theatre, student should be able to

- Enlist the complete protocols for maintaining asepsis in theatre.
- Explain basic principles of gloving and gowning.
- Enlist the types of anaesthesia used in different surgeries.

LEARNING OBJECTIVES OF LECTURES

At the end of this 1-hour lecture, the final year MBBS student will be able to:

INTRODUCTION OF SURGERY: (SURG-LEC-1)

- Define the principles of skin incisions.
- Discuss the concept of skin tension or Langer's lines and their practical application.
- Describe different types of abdominal incisions and the types of surgeries where these are considered.
- Classify the characteristics and types of drains, their mode of action, and classification as active and passive.
- Explain the use of diathermy, ligature and harmonic scalpel.

SHOCK AND HEMORRHAGE: (SURG-LEC-2)

- Define the pathophysiology of shock.
- Label the cardiovascular and metabolic characteristics of shock.
- Classify the clinical features of shock.
- Define types of hemorrhage.
- Define the terms like damage control surgery and damage control resuscitation

PRE AND POST OPERATIVE PREPARATIONS: (SURG-LEC-3)

- Describe the importance of WHO checklist and its components.
- Explain how to reduce intraoperative risks of positioning, venous thromboembolism, infection, and hypothermia, by using appropriate monitoring and equipment.
- Determine fluid and electrolyte managements in the pre and postoperative patient
- Describe the nutritional requirements of surgical patients and explain different method of providing nutritional support and its complications
- Determine and treat postoperative complications
- Describe the concept of day surgery pathway and explain the spectrum of surgical procedures suitable for day surgery.

BLOOD TRANSFUSION: (SURG-LEC-4)

- Classify blood products and define their characteristics.
- Define practical application of ABO and Rhesus blood system
- Describe the indications of blood transfusion.
- Explain different blood group system.
- Enlist complications of blood transfusion.

WOUND MANAGEMENT: (SURG-LEC-5)

- Define the phases of wound healing and the factors influencing the healing of a wound.
- Define the management of compartment syndrome.

<ul style="list-style-type: none"> • Describe the etiology and leg ulcers, and different aspects of their management.
<ul style="list-style-type: none"> • Describe staging and characteristics of pressure sores.
<ul style="list-style-type: none"> • Define necrotizing skin infections, their etiology and management.
<ul style="list-style-type: none"> • Enumerate differences in hypertrophic and keloid scars.
BURNS MANAGEMENT: (PLASTIC-LEC-A & B)
<ul style="list-style-type: none"> • Define different types of burns and establish prevention and immediate care of burn patient.
<ul style="list-style-type: none"> • Define the criteria for acute admission in burns unit.
<ul style="list-style-type: none"> • Describe the major determinants affecting the outcome in burns patient.
<ul style="list-style-type: none"> • Explain the causes of burn and how to assess the area burnt.
<ul style="list-style-type: none"> • Predict the plan of fluid resuscitation thorough different formulae.
<ul style="list-style-type: none"> • Describe the nutritional management in burn patient.
<ul style="list-style-type: none"> • SKIN GRAFTING AND SKIN FLAPS: (PLASTIC-LEC-2)
<ul style="list-style-type: none"> • Define the anatomy of skin and the spectrum of plastic surgical techniques used to restore bodily form and function.
<ul style="list-style-type: none"> • Define the relevant anatomy and physiology of tissues used in reconstruction.
<ul style="list-style-type: none"> • Describe the concepts of various skin grafts and how to use them appropriately.
<ul style="list-style-type: none"> • Explain principles and use of flaps.
<ul style="list-style-type: none"> • Discuss how to use plastic surgery to manage difficult and complex tissue loss.
<ul style="list-style-type: none"> • TRAUMA MANAGEMENT (SURG-LEC-6)
<ul style="list-style-type: none"> • Discuss how to assess and respond to a trauma problem.
<ul style="list-style-type: none"> • Develop the value of planning and describe the priorities in the early assessment of the injured patient.
<ul style="list-style-type: none"> • Define the principles of triage in the immediate management of injured patient
<ul style="list-style-type: none"> • Discuss the concepts of injury recognition and prediction based on the mechanism and energy of injury.
<ul style="list-style-type: none"> • Describe the principles of primary and secondary surveys in the assessment and management of trauma.
<ul style="list-style-type: none"> • Explain the techniques for the initial resuscitative and definitive care aspects of trauma.
<ul style="list-style-type: none"> • HEAD INJURY: (SURG-LEC-7)
<ul style="list-style-type: none"> • Define the physiology of cerebral blood flow and the pathophysiology of raised intracranial pressure.
<ul style="list-style-type: none"> • Describe how to take history in head injury patient and its management.
<ul style="list-style-type: none"> • Establish the diagnosis and management of spontaneous intracranial bleeding including sub arachnoid hemorrhage.
<ul style="list-style-type: none"> • Describe Glasgow Coma Scale and classify traumatic head injury.
<ul style="list-style-type: none"> • Discuss the ATLS protocols and its application in primary and secondary survey.
<ul style="list-style-type: none"> • Interpret the discharge criteria in minor and mild head injury and explain the NICE guidelines for CT scan in head injury.
<ul style="list-style-type: none"> • OBSTRUCTIVE JUANDICE (SURG-LEC-8)

<ul style="list-style-type: none"> • To summarize the basic anatomy and physiology of the biliary system.
<ul style="list-style-type: none"> • Classify the various types of jaundice and their causes.
<ul style="list-style-type: none"> • To demonstrate the pathophysiology and complications of obstructive jaundice
<ul style="list-style-type: none"> • Enlist the common causes of obstructive jaundice in a sequential manner.
<ul style="list-style-type: none"> • Plan and justify required non-invasive & invasive investigations in obstructive jaundice
<ul style="list-style-type: none"> • Outline a management plan for a patient suffering from obstructive jaundice presenting to the emergency / OPD.
<ul style="list-style-type: none"> • Describe a management plan including surgical options for a patient suffering from obstructive jaundice and its complications.
<ul style="list-style-type: none"> • SPLENOMEGALY: (SURG-LEC-9)
<ul style="list-style-type: none"> • Define the functions of spleen
<ul style="list-style-type: none"> • Describe the common pathologies involving the spleen
<ul style="list-style-type: none"> • Discuss the principles and potential complications of splenectomy
<ul style="list-style-type: none"> • Explain the potential advantages of laparoscopic splenectomy
<ul style="list-style-type: none"> • Interpret the benefits of splenic conservation
<ul style="list-style-type: none"> • Define the importance of prophylaxis against infection following splenectomy
<ul style="list-style-type: none"> • INTESTINAL FISTULA AND STOMA: (SURG-LEC-10)
<ul style="list-style-type: none"> • Describe the anatomy and physiology of gastrointestinal tract
<ol style="list-style-type: none"> a) Define the pathologies and surgeries of intestinal tract which may lead to stoma formation.
<ol style="list-style-type: none"> b) Discuss difference in anatomy and physiology of ileostomy and colostomy
<ol style="list-style-type: none"> c) Discuss the definitions and pathophysiological basis of temporary and permanent stomas
<ol style="list-style-type: none"> d) Define the concept of stoma bags
<ol style="list-style-type: none"> e) Discuss the counseling and required pre and post stoma care
<ul style="list-style-type: none"> • ACID-PEPTIC DISEASE: (SURG-LEC-11)
<ol style="list-style-type: none"> a) Define the gross and microscopic anatomy and pathophysiology of stomach along with the structures and organs related to upper gastrointestinal tract like gallbladder and pancreas
<ol style="list-style-type: none"> b) Explain the differential diagnosis and interpret the investigations related to the pathology of stomach and duodenum
<ol style="list-style-type: none"> c) Interpret the critical importance of gastritis and Helicobacter pylori in the upper gastrointestinal disease
<ol style="list-style-type: none"> d) Identify and treat peptic ulcer disease and its complications
<ol style="list-style-type: none"> e) Describe the operations for duodenal ulcer and their indications
<ul style="list-style-type: none"> • ACUTE ABDOMEN: (SURG-LEC-12)
<ol style="list-style-type: none"> a) Define the etiology and pathophysiology of common intestinal conditions
<ol style="list-style-type: none"> b) Identify the importance of non-surgical management of intestinal conditions
<ol style="list-style-type: none"> c) Describe the management of acute surgical problems of intestines

d) Explain the pathophysiology of dynamic and adynamic intestinal obstruction
e) Define the cardinal features on history and examination
f) Identify the causes of small and large bowel obstruction
g) Describe the indications for surgery and other treatment options in bowel obstruction.
PARATHYROID DISORDERS: (SURG-LEC-13)
a) Describe the development and anatomy of the parathyroid glands
b) Discuss the physiology and investigations of parathyroid function
c) Order appropriate investigations for parathyroid swellings
d) Enumerate the indications of surgery in parathyroid swelling
e) Describe the investigation and management of various types of hyperparathyroidism.
f) Enlist the risks and complications of parathyroid surgery.
SALIVARY GLAND DISORDERS: (SURG-LEC-14)
a) Define the surgical anatomy of the salivary glands
b) Describe the presentation, pathology and investigation of salivary glands
c) Explain the medical and surgical treatment of stones, infection, and tumors that affect salivary glands
d) Classify salivary gland tumors
CHOLELITHIASIS AND MINIMAL INVASIVE SURGERY (SURG-LEC-15)
a) To summarize the basic anatomy and physiology of the gall bladder and bile ducts.
b) To demonstrate the pathophysiology, management and complications of gallstones
c) Enlist the disorders of the biliary tree
d) Classify the various types of gall stones and their causes.
e) Classify malignant disease of the gall bladder and bile ducts
f) Plan and justify required investigations including invasive investigations in gall bladder diseases.
g) Describe a management plan including surgical options for a patient with cholelithiasis and/or its complications.
h) To understand the basic concept of minimal invasive surgery including laparoscopic cholecystectomy.
i) Enlist the advantages, limitations and possible complications of laparoscopic surgery.
ACUTE PANCREATITIS (SURG-LEC-16)
a) Summarize the surgical anatomy and physiology of pancreas.
b) Enlist Congenital abnormalities of the pancreas

c) Enumerate the causes of acute pancreatitis.
d) Enlist the differential diagnosis of acute pancreatitis
e) Demonstrate various scoring systems of assessment of pancreatitis
f) Enlist the investigation needed for suspected pancreatitis
g) Develop a management plan for a patient suffering from acute pancreatitis.
BENIGN AND MALIGNANT BREAST DISEASES (SURG-LEC-17, 18)
a) To summarize the basic anatomy and physiology of the breast.
b) To demonstrate congenital anomalies of breast
c) Enlist the causes of breast lump
d) Classify breast lump and association with hormonal changes
e) Demonstrate triple assessment
f) Plan and justify required investigations for breast lump.
g) Enlist investigations needed for staging malignant breast lump
h) Propose a management plan for a patient who has been diagnosed as a benign breast disease.
i) Devise a management strategy on the basis of current scientific evidence for a patient diagnosed as having a malignant breast disease.
GASTRIC CANCER & GASTRIC OUTLET OBSTRUCTION (SURG-LEC-19)
a) Summarize the gross and microscopic anatomy and pathophysiology of the stomach in relation to disease
b) Enlist the causes of gastric outlet obstruction.
c) Decide on the most appropriate techniques to use in the investigation of patients with gastric outlet obstruction
d) Describe the critical importance of gastritis and helicobacter pylori in upper gastrointestinal disease
e) To be able to investigate and treat peptic ulcer disease and its complications
f) To be able to recognize the presentation of gastric cancer and understand the principals involved in its treatment
g) Summarize a management approach for a patient diagnosed as gastric carcinoma.

DYSPHAGIA (SURG-LEC-20)
a) Summarize the basic anatomy and physiology of the esophagus and their relationship to the disease
b) Enumerate congenital anomalies of esophagus
c) Enlist the causes of dysphagia
d) Classify dysphagia
e) Enlist the clinical features, investigations and treatment of benign and malignant diseases of esophagus
f) Plan and justify required investigations for dysphagia
g) Devise a plan to manage a patient with carcinoma esophagus.
h) Formulate a management strategy, based on surgical principles, for the management of a patient presenting with dysphagia.
i) Enumerate various types of esophagectomy according to the site of malignant lesion.
j) Formulate a nutrition support plan for a patient undergoing an esophagectomy with emphasis on both pre and post-operative stages.
NECK SWELLINGS AND THYROID DISORDERS (SURG-LEC-21,22,26)
a) Describe the development and anatomy of the thyroid glands
b) Summarize the physiology and investigation of thyroid disorders
c) Explain the lymphatic drainage of neck
d) Enlist the causes of neck swelling from the commonest to rarest
e) Classify various types of neck swelling
f) Select appropriate investigations for neck swellings
g) Devise a management plan including medical, surgical and nuclear medicine options for a patient with goitre.
h) Describe how to treat thyrotoxicosis and thyroid failure
i) Justify when to operate on a thyroid swelling
j) Describe different types of thyroid surgeries
k) Enlist the risks and complications of thyroid surgery

ACUTE APPENDICITIS (SURG-LEC-23)
a) To summarize the aetiology and surgical anatomy of acute appendicitis
b) Explain the basic concept of migratory right iliac fossa pain.
c) Enumerate the causes of right iliac fossa pain from the commonest to rarest
d) Enlist the investigation needed for suspected appendicitis
e) Outline a management plan for a patient suffering from acute appendicitis
<ul style="list-style-type: none"> • Explain various types of incisions for appendicectomy • Enumerate Common conditions encountered preoperatively • Describe the management of postoperative problems
INTESTINAL OBSTRUCTION (SURG-LEC-24)
<ul style="list-style-type: none"> • To summarize the basic anatomy and physiology of small and large intestines • To describe the pathophysiology of intestinal obstruction • To differentiate between dynamic and adynamic intestinal obstruction • Enlist the causes of intestinal obstruction from the commonest to rarest • Classify various types of intestinal obstruction. • Explain the possible complications of intestinal obstruction. • Outline a strategy to manage a patient with intestinal obstruction. • indications for surgery and other treatment options in bowel obstruction • Propose a nutrition plan which includes both enteral and parental components for a patient who has undergone small bowel resection.
COLORECTAL DISEASES (SURG-LEC-25)
<ul style="list-style-type: none"> • Summarize the anatomy of the colon and rectum and its relationship to surgical diseases and its treatment • Describe the pathology, clinical presentation, investigations, differential diagnosis and treatment of diseases that affect the colon and rectum • Enlist the common causes of lower gastro-intestinal bleeding in a logical manner. • Describe a management strategy for a patient suffering from lower gastrointestinal bleeding. • Design a management plan for a patient with inflammatory bowel disease. • Enumerate the types and classification of intestinal fistulas and transcribe management options for intestinal fistulas on a given patient. • To be able to differentiate benign from malignant causes of lower gastrointestinal bleeding • Describe the management plan of patient with colorectal tumour. • Select the appropriate site and type of stoma formation in a given patient on the basis of surgical principles.

ANORECTAL DISEASES (SURG-LEC-27)
<ul style="list-style-type: none"> Describe the anatomy of the anus and anal canal and their relationship to surgical disease and its treatment
<ul style="list-style-type: none"> Explain the pathology, clinical presentation, investigation, differential diagnosis and treatment of diseases that affect the anus and anal canal
<ul style="list-style-type: none"> Enlist the common perianal diseases
<ul style="list-style-type: none"> Design a management plan for a patient suffering from perianal diseases.
<ul style="list-style-type: none"> Classify fistula-in-ano and devise a management plan of low and high anal fistula
<ul style="list-style-type: none"> Describe the conservative management and enumerate surgical options for Anal Fissure
<ul style="list-style-type: none"> Classify Perianal Abscess and devise management plan for such patients
<ul style="list-style-type: none"> Recommend a comprehensive management plan for the patient of Haemorrhoids including surgical procedures.
<ul style="list-style-type: none"> Enlist complications following perianal surgery
ABDOMINAL WALL HERNIAS (SURG-LEC-28):
<ul style="list-style-type: none"> Summarize the basic anatomy of abdominal wall and its natural or acquired weaknesses.
<ul style="list-style-type: none"> Enlist the causes of abdominal hernia from the commonest to rarest
<ul style="list-style-type: none"> Classify the various types of abdominal wall hernia as per accepted guidelines.
<ul style="list-style-type: none"> Explain the complications of abdominal hernias as per natural progression of the disease.
<ul style="list-style-type: none"> Tabulate the difference between obstructed and strangulated hernia.
<ul style="list-style-type: none"> List the baseline investigations needed for pre-operative workup of a hernia patient.
<ul style="list-style-type: none"> Prioritize the problem specific investigations needed for pre-operative workup for hernia patient.
<ul style="list-style-type: none"> Recommend a comprehensive management plan for the given patient of inguinal hernia including surgical procedures.
<ul style="list-style-type: none"> Correlate the reasons for complications following hernia surgery.
GENITOURINARY DISEASES (URO-LEC-1,2)
<ul style="list-style-type: none"> Recognise the important congenital abnormalities of the genitourinary tract
<ul style="list-style-type: none"> Describe the aetiology, presentation and management of common genitourinary diseases
<ul style="list-style-type: none"> Summarize the pathophysiology of renal stone formation
<ul style="list-style-type: none"> Classify renal stones
<ul style="list-style-type: none"> Recommend the management plan of sepsis in the upper urinary tract
<ul style="list-style-type: none"> Propose a management plan based on surgical principles for management of a patient with renal calculi.
<ul style="list-style-type: none"> Enumerate the causes of haematuria.
<ul style="list-style-type: none"> Formulate a working plan for management of a patient with renal tumour.
<ul style="list-style-type: none"> Outline a management plan for a patient suffering from urinary bladder outlet obstruction.
VASCULAR DISEASES AND VARICOSE VEINS (SURG-LEC-29)

<ul style="list-style-type: none"> • To summarize venous anatomy and the physiology of venous return
<ul style="list-style-type: none"> • Explain the pathophysiology of vascular diseases
<ul style="list-style-type: none"> • Enlist the causes of varicose vein, deep venous thrombosis, vascular insufficiency and their management.
<ul style="list-style-type: none"> • Interpret the clinical findings to achieve a working diagnosis in a patient presenting with a lower leg ulcer and manage such a patient.
<ul style="list-style-type: none"> • Summarize a management approach for a patient diagnosed as having peripheral vascular disease.
<ul style="list-style-type: none"> • Construct a plan for management of a patient diagnosed as having diabetic foot
SCROTAL SWELLINGS (URO-LEC-3)
<ul style="list-style-type: none"> • Summarize the basic anatomy of testis and testicular descent.
<ul style="list-style-type: none"> • Enlist the causes of scrotal swellings from the commonest to rarest
<ul style="list-style-type: none"> • Classify the various types of scrotal swellings.
<ul style="list-style-type: none"> • Tabulate the difference between varicocele, hydrocele and epididymal cyst
<ul style="list-style-type: none"> • Differentiate between testicular torsion and epididymo-orchitis
<ul style="list-style-type: none"> • Explain Testicular torsion as a urological emergency
<ul style="list-style-type: none"> • List the baseline investigations needed for pre-operative workup of a patient with scrotal swelling
<ul style="list-style-type: none"> • Recommend a comprehensive management plan for the given patient with scrotal swelling including the management of the common scrotal swellings (varicocele, hydrocele and epididymal cysts)
<ul style="list-style-type: none"> • Order and interpret appropriate investigations including tumour markers in a patient with testicular tumour.
<ul style="list-style-type: none"> • Enlist investigations needed to stage accurately a patient with testicular tumour.
<ul style="list-style-type: none"> • Outline a management plan for a testicular tumour.
<ul style="list-style-type: none"> • Formulate a plan for managing a case of undescended testis.

LEARNING OBJECTIVES: CASE BASED DISCUSSION

ABDOMINAL WALL HERNIAS (CBD-1)
<ul style="list-style-type: none"> • Justify the correct steps of recording a history from a given patient.
<ul style="list-style-type: none"> • Demonstrate the logical steps of examining a patient with hernia
<ul style="list-style-type: none"> • Record a pertinent history from the given patient so as to be able to reach a working diagnosis
<ul style="list-style-type: none"> • Summarize the basic anatomy of abdominal wall and its natural or acquired weaknesses.
<ul style="list-style-type: none"> • Enlist the causes of abdominal hernia from the commonest to rarest
<ul style="list-style-type: none"> • Classify the various types of abdominal wall hernia as per accepted guidelines
<ul style="list-style-type: none"> • Explain the complications of abdominal hernias as per natural progression of the disease.
<ul style="list-style-type: none"> • Demonstrate with complete accuracy the difference between an inguino-scrotal and scrotal swelling.
<ul style="list-style-type: none"> • Demonstrate the difference between a femoral, indirect and direct inguinal hernia during physical examination.
<ul style="list-style-type: none"> • Show with complete precision the differences between a reducible and irreducible inguinal hernia during physical examination
<ul style="list-style-type: none"> • Tabulate the difference between obstructed and strangulated hernia.
<ul style="list-style-type: none"> • Defend the working diagnosis of an abdominal wall hernia after taking a history and physical examination of a given patient.
<ul style="list-style-type: none"> • List the baseline investigations needed for pre-operative workup of a hernia patient.
<ul style="list-style-type: none"> • Recommend a comprehensive management plan for the given patient of inguinal hernia including surgical procedures.
<ul style="list-style-type: none"> • Correlate the reasons for complications following hernia surgery
<ul style="list-style-type: none"> • Informed Consent for hernioplasty (Faculty with PGT or house officers as simulated patient) Practice session as well <p>At the end of the 40 minutes encounter the final year student will be able to:</p> <ul style="list-style-type: none"> • Enlist the complete protocols for obtaining an informed consent from a patient of hernia. • Enumerate the possible complications associated with hernioplasty. • Discuss the anaesthetic options that may be employed during the surgical procedure. • Employ accepted guidelines for attaining an informed consent from a simulated patient of hernia who is to undergo elective surgery.
Gall bladder diseases (CBD-2)
<ul style="list-style-type: none"> • Elicit a focused history from a patient suffering from acute /chronic cholecystitis
<ul style="list-style-type: none"> • To differentiate accurately between biliary colic and acute cholecystitis
<ul style="list-style-type: none"> • Record a pertinent history from the given patient to reach a working diagnosis.
<ul style="list-style-type: none"> • Justify the correct steps of recording a history from a given patient.
CASE BASED
<ul style="list-style-type: none"> • To summarize the basic anatomy and physiology of the gall bladder and bile ducts.

• To demonstrate the pathophysiology, management and complications of gallstones
• Enlist the disorders of the biliary tree
• Classify malignant disease of the gall bladder and bile ducts
• Enlist the causes of right hypochondrial pain from the commonest to rarest
• Classify the various types of gall stones and their causes.
• Explain the possible complications of gall stones.
• Demonstrate murphy's sign on clinical examination.
• Demonstrate the difference between biliary colic, acute and chronic cholecystitis during physical examination.
• Perform a focused examination in a patient with right hypochondrial pain
• Enumerate differential diagnosis of right hypochondriac pain
• Diagnose a patient suffering from gall bladder diseases on the basis of a focused history and examination.
• Plan and justify required investigations including invasive investigations in gall bladder diseases.
• Outline a management plan for a patient most likely suffering from gall bladder diseases presenting to the emergency ward / OPD.
• Describe a management plan including surgical options for a patient suffering from cholelithiasis and its complications.
• To understand the basic concept of minimal invasive surgery including laparoscopic cholecystectomy.
• Enlist the advantages, limitations and possible complications of laparoscopic surgery.
Informed Consent for cholecystectomy (Faculty with PGT or house officers as simulated patient) Practice session as well
At the end of the 40 minutes encounter the final year student will be able to:
• Enlist the complete protocols for obtaining an informed consent from a patient of cholelithiasis.
• Counsel A Patient with Acute cholecystitis and its complication for any required intervention.
• Obtain an informed consent from a patient or his/her family member for laparoscopic cholecystectomy and possible conversion to an open procedure with reasoning.
• Enumerate the advantages, limitations and possible complications of laparoscopic surgery.
• Discuss the anaesthetic options that may be employed during the surgical procedure.
• Employ accepted guidelines for attaining an informed consent from a simulated patient of cholelithiasis who is to undergo elective surgery.
ACUTE APPENDICITIS (CBD-3)
• Elicit a focused history from a patient suffering from acute appendicitis so as to reach a working diagnosis.
• Perform a focused examination in a patient with right lower quadrant pain.
• To exclude other differential diagnosis of acute appendicitis
• Record a pertinent history from the given patient to reach a working diagnosis.
• Justify the correct steps of recording a history from a given patient.

CASE BASED
<ul style="list-style-type: none"> To summarize the aetiology and surgical anatomy of acute appendicitis
<ul style="list-style-type: none"> Explain the basic concept of migratory right iliac fossa pain.
<ul style="list-style-type: none"> Enlist the causes of right iliac fossa pain from the commonest to rarest
<ul style="list-style-type: none"> To demonstrate the clinical signs of acute appendicitis
<ul style="list-style-type: none"> Enlist the investigation needed for suspected appendicitis
<ul style="list-style-type: none"> Outline a management plan for a patient suffering from acute appendicitis.
<ul style="list-style-type: none"> Explain basic surgical techniques of appendectomy
<ul style="list-style-type: none"> Enumerate common conditions encountered preoperatively
<ul style="list-style-type: none"> Describe the management of postoperative problems
ACUTE PANCREATITIS (CBD-4)
<ul style="list-style-type: none"> Record a pertinent history from a patient most likely suffering from acute pancreatitis
<ul style="list-style-type: none"> Perform a focused examination in a patient with upper abdominal pain.
<ul style="list-style-type: none"> To exclude other differential diagnosis of acute pancreatitis
<ul style="list-style-type: none"> Record a pertinent history from the given patient to reach a working diagnosis.
<p>Informed Consent for appendicectomy (Faculty with PGT or house officers as simulated patient) Practice session as well</p> <p>At the end of the 40 minutes encounter the final year student will be able to:</p> <ul style="list-style-type: none"> Enlist the complete protocols for obtaining an informed consent from a patient of appendicitis Counsel a patient with acute appendicitis and its complication for any required intervention. Obtain an informed consent from a patient or his/her family member for appendicectomy Discuss the anaesthetic options that may be employed during the surgical procedure. Employ accepted guidelines for attaining an informed consent from a simulated patient of appendicitis who is to undergo surgery.
CASE BASED
<ul style="list-style-type: none"> Summarize the surgical anatomy and physiology of pancreas.
<ul style="list-style-type: none"> Enlist congenital abnormalities of the pancreas
<ul style="list-style-type: none"> Enumerate the causes of acute pancreatitis.
<ul style="list-style-type: none"> Enlist the differential diagnosis of acute pancreatitis
<ul style="list-style-type: none"> Demonstrate various scoring systems of assessment of pancreatitis
<ul style="list-style-type: none"> Enlist the investigation needed for suspected pancreatitis
<ul style="list-style-type: none"> Develop a management plan for a patient suffering from acute pancreatitis.
<ul style="list-style-type: none"> Counsel a patient suffering from acute pancreatitis about the management plan and justify the utilization of surgical options if needed to be proceeded on.
OBSTRUCTIVE JAUNDICE (CBD-5)
<ul style="list-style-type: none"> Take a focused history from a patient suffering from obstructive jaundice to reach a rational cause for the same.
<ul style="list-style-type: none"> To differentiate accurately between benign and malignant causes of obstructive jaundice
<ul style="list-style-type: none"> To demonstrate Courvoisier's law.

- Justify the correct steps of recording a history from a given patient.

CASE BASED

- To summarize the basic anatomy and physiology of the biliary system.
- To demonstrate the pathophysiology and complications of obstructive jaundice
- Enlist the common causes of obstructive jaundice in a sequential manner.
- Classify the various types of jaundice and their causes.
- Perform a focused examination in a patient with obstructive jaundice
- Diagnose a patient suffering from obstructive jaundice on the basis of a focused history and examination.
- Plan and justify required investigations including invasive investigations in obstructive jaundice
- Outline a management plan for a patient suffering from obstructive jaundice presenting to the emergency ward / OPD.
- Describe a management plan including surgical options for a patient suffering from obstructive jaundice and its complications.

SCROTAL SWELLINGS (CBD-6)

- Justify the correct steps of recording a history from a given patient.
- Demonstrate the logical steps of examining a patient with a scrotal swelling
- To differentiate accurately between scrotal and inguino-scrotal swellings
- Record a pertinent history from the given patient so as to be able to reach a working diagnosis.

CASE BASED

- Summarize the basic anatomy of testis and testicular descent.
- Enlist the causes of scrotal swellings from the commonest to rarest
- Classify the various types of scrotal swellings
- Demonstrate with complete accuracy the difference between an inguino-scrotal and scrotal swelling.
- Tabulate the difference between varicocele, hydrocele and epididymal cyst
- To differentiate between testicular torsion and epididymo-orchitis
- Demonstrate testicular maldescent and to appreciate the reasons for intervention
- Explain testicular torsion as a urological emergency
- Differentiate testicular tumours from other scrotal swelling on the basis of clinical history and examination
- List the baseline investigations needed for pre-operative workup of a patient with scrotal swelling
- Recommend a comprehensive management plan for the given patient with scrotal swelling including the management of the common scrotal swellings (varicocele, hydrocele and epididymal cysts)
- Order and interpret appropriate investigations including tumour markers in a patient with testicular tumour.
- Enlist investigations needed to stage accurately a patient with testicular tumour.

<ul style="list-style-type: none"> • Outline a management plan for a testicular tumour.
<ul style="list-style-type: none"> • Formulate a plan for managing a case of undescended testis.
<ul style="list-style-type: none"> • Informed consent for testicular surgery (Faculty with PGT or house officers as simulated patient) Practice session as well • At the end of the 40 minutes encounter the final year student will be able to: • Enlist the complete protocol for obtaining an informed consent from a patient of scrotal swelling • Counsel an adult patient who is to undergo surgery for an undescended testis including orchidectomy • Enumerate the possible complications associated with surgery • Discuss the anaesthetic options that may be employed during the surgical procedure. • Counsel a patient of testicular tumour regarding orchidectomy and possible adjuvant treatment
<p>BREAST LUMP & ASSOCIATED DISEASES (CBD-6)</p>
<ul style="list-style-type: none"> • Elicit a focused history from a patient having breast lump
<ul style="list-style-type: none"> • To differentiate accurately between benign and malignant breast lump
<ul style="list-style-type: none"> • Evaluate risk factors for malignant breast diseases.
<ul style="list-style-type: none"> • Record a pertinent history from the given patient to reach a working diagnosis.
<p>CASE BASED</p>
<ul style="list-style-type: none"> • To summarize the basic anatomy and physiology of the breast.
<ul style="list-style-type: none"> • To demonstrate congenital anomalies of breast
<ul style="list-style-type: none"> • Enlist the causes of breast lump
<ul style="list-style-type: none"> • Classify breast lump and association with hormonal changes
<ul style="list-style-type: none"> • Demonstrate the difference between benign and malignant breast lump on physical examination.
<ul style="list-style-type: none"> • Justify the diagnosis on the basis of history and physical examination of a patient presenting with a breast lump.
<ul style="list-style-type: none"> • Demonstrate triple assessment
<ul style="list-style-type: none"> • Plan and justify required investigations for breast lump.
<ul style="list-style-type: none"> • Enlist investigations needed for staging breast carcinoma
<ul style="list-style-type: none"> • Propose a management plan for a patient who has been diagnosed as a benign breast disease.
<ul style="list-style-type: none"> • Devise a management strategy on the basis of current scientific evidence for a patient diagnosed as having a malignant breast disease.
<ul style="list-style-type: none"> • Informed consent for modified radical mastectomy (Faculty with PGT or house officers as simulated patient) Practice session as well • At the end of the 40 minutes encounter the final year student will be able to: • Enlist the complete protocols for obtaining an informed consent from a patient of breast lump • Obtain an informed consent from a patient who is to undergo a modified radical mastectomy explaining all common possible outcomes.

- Counsel a patient diagnosed as having malignant breast disease about the future management with the possible options of chemotherapy, hormone therapy and radiotherapy.
- Counsel the patient regarding neoadjuvant chemoradiotherapy
- Explain possible post-operative complications after mastectomy.
- Explain various breast reconstructive procedures available after mastectomy.

VASCULAR DISEASES AND VARICOSE VEINS (CBD-7)

- Elicit a focused history from a patient having vascular disorder
- Evaluate risk factors for vascular diseases.
- Record a pertinent history from the given patient to reach a working diagnosis.
- Justify the correct steps of recording a history from a given patient.

CASE BASED

- To summarize venous anatomy and the physiology of venous return
- Explain the pathophysiology of vascular diseases
- Enlist the causes of varicose vein, deep venous thrombosis, vascular insufficiency and venous ulceration.
- Justify the diagnosis on the basis of history and physical examination of a patient presenting with a vascular disorder.
- Able to examine and perform various specified test for the clinical diagnosis of varicose veins
- Interpret the clinical findings to achieve a working diagnosis in a patient presenting with a lower leg ulcer and manage such a patient.
- Summarize a management approach for a patient diagnosed as having peripheral vascular disease.
- Construct a plan for management of a patient diagnosed as having diabetic foot

Informed consent for varicose vein surgery (Faculty with PGT or house officers as simulated patient) Practice session as well

- At the end of the 40 minutes encounter the final year student will be able to:
- Enlist the complete protocols for obtaining an informed consent from a patient of varicose veins
- Obtain an informed consent from a patient who is to undergo surgery for varicose veins.
- Explain possible post-operative complications after vascular surgery
- Explain various radiological procedures available for treatment of varicose veins

DYSPHAGIA (CBD-8)

- Elicit a focused history from a patient having dysphagia
- Evaluate risk factors for carcinoma oesophagus
- Record a pertinent history from the given patient to reach a working diagnosis.

CASE BASED

- To summarize the basic anatomy and physiology of the oesophagus and their relationship to disease
- To enumerate congenital anomalies of oesophagus

<ul style="list-style-type: none"> • Enlist the causes of dysphagia
<ul style="list-style-type: none"> • Classify dysphagia
<ul style="list-style-type: none"> • To enlist the clinical features, investigations and treatment of benign and malignant diseases of oesophagus
<ul style="list-style-type: none"> • Plan and justify required investigations for dysphagia
<ul style="list-style-type: none"> • Interpret the findings on the taken history to diagnose the patient presenting with dysphagia.
<ul style="list-style-type: none"> • Plan and justify required investigations for dysphagia
<ul style="list-style-type: none"> • Devise a plan to manage a patient with carcinoma oesophagus.
<ul style="list-style-type: none"> • Enumerate various types of esophagectomy according to the site of malignant lesion.
<ul style="list-style-type: none"> • Formulate a nutrition support plan for a patient undergoing an esophagectomy with emphasis on both pre and post-operative stages.
<ul style="list-style-type: none"> • Counsel a patient of carcinoma oesophagus about the future management and possible outcome of the disease
INTESTINAL OBSTRUCTION (CBD-9)
<ul style="list-style-type: none"> • Elicit a focused history from a patient suffering from intestinal obstruction
<ul style="list-style-type: none"> • To differentiate accurately between acute and chronic intestinal obstruction
<ul style="list-style-type: none"> • Demonstrate the cardinal features of intestinal obstruction
<ul style="list-style-type: none"> • Record a pertinent history from the given patient to reach a working diagnosis.
CASE BASED
<ul style="list-style-type: none"> • To summarize the basic anatomy and physiology of small and large intestines
<ul style="list-style-type: none"> • To describe the pathophysiology of intestinal obstruction
<ul style="list-style-type: none"> • To differentiate between dynamic and adynamic intestinal obstruction
<ul style="list-style-type: none"> • Enlist the causes of intestinal obstruction from the commonest to rarest
<ul style="list-style-type: none"> • Classify various types of intestinal obstruction
<ul style="list-style-type: none"> • Demonstrate the cardinal features of intestinal obstruction on history and examination
<ul style="list-style-type: none"> • Analyse the history from a patient presenting with possible intestinal obstruction and pinpoint the most likely pathology.
<ul style="list-style-type: none"> • Explain the possible complications of intestinal obstruction.
<ul style="list-style-type: none"> • Justify a fluid and electrolyte correction regimen for a patient in intestinal obstruction.
<ul style="list-style-type: none"> • Outline a strategy to manage a patient with intestinal obstruction.
<ul style="list-style-type: none"> • Conclude indications for surgery and other treatment options in bowel obstruction
<ul style="list-style-type: none"> • Propose a nutrition plan which includes both enteral and parental components for a patient who has undergone small bowel resection.
Informed consent for laparotomy (Faculty with PGT or house officers as simulated patient) Practice session as well
<p>At the end of the 40 minutes encounter the final year student will be able to:</p> <ul style="list-style-type: none"> • Enlist the complete protocols for obtaining an informed consent from a patient of intestinal obstruction • Obtain an informed consent from a patient or his/her family member for laparotomy for intestinal obstruction

- Counsel the patient regarding stoma formation and care of stoma.
- Employ accepted guidelines for attaining an informed consent from a simulated patient of intestinal obstruction who is to undergo surgery.

COLORECTAL DISEASES (CBD-10)

- Justify the correct steps of recording a history from a given patient of lower gastrointestinal bleeding.
- Demonstrate the logical steps of examining a patient with lower gastrointestinal bleeding.
- Record a pertinent history from the given patient so as to be able to reach a working diagnosis.
- Analyse a history from a patient and be able interpret the findings to identify the specific cause for the lower gastro-intestinal bleeding.

CASE BASED

- Summarize the anatomy of the colon and rectum and its relationship to surgical diseases and its treatment
- Describe pathology, clinical presentation, investigation, differential diagnosis and treatment of diseases that affect the colon and rectum
- Enlist the common causes of lower gastro-intestinal bleeding in a logical manner.
- Analyse a history from a patient and be able interpret the findings to identify the specific cause for the lower gastro-intestinal bleeding.
- Describe a management strategy for a patient suffering from lower gastrointestinal bleeding.
- Diagnose a patient with inflammatory bowel disease (ulcerative colitis and Crohn's) on the basis of history and examination.
- Order and interpret appropriate investigations in a patient with inflammatory bowel disease.
- Design a management plan for a patient with inflammatory bowel disease.
- Enumerate the types and classification of intestinal fistulas and transcribe management options for intestinal fistulas on a given patient.
- To be able to differentiate benign from malignant causes of lower gastrointestinal bleeding
- Identify patient of suspected colorectal tumour on the basis of history and clinical examination.
- List the baseline investigations needed for pre-operative workup of a patient with colorectal tumour
- Describe the management plan of patient with colorectal tumour
- Select the appropriate site and type of stoma formation in a given patient on the basis of surgical principles.
- Identify the complications of stoma.

Informed consent for colorectal Surgery (Faculty with PGT or house officers as simulated patient) Practice session as well

At the end of the 40 minutes encounter the final year student will be able to:

- Enlist the complete protocols for obtaining an informed consent from a patient of colorectal tumor.
- Enumerate the possible complications associated with surgery.
- Discuss the anaesthetic options that may be employed during the surgical procedure.
- Counsel a given patient regarding permanent stoma formation following abdominoperineal resection for carcinoma rectum.
- Employ accepted guidelines for attaining an informed consent from a simulated patient of colorectal carcinoma who is to undergo elective surgery.

NECK SWELLINGS (CBD-11)

- Justify the correct steps of recording a history from a given patient.
- Demonstrate the logical steps of examining a patient with neck swelling
- Record a pertinent history from the given patient so as to be able to reach a working diagnosis.

CASE BASED

- To describe the development and anatomy of the thyroid and parathyroid glands
- To summarize the physiology and investigation of thyroid and parathyroid disorders
- Explain the lymphatic drainage of neck
- Enlist the causes of neck swelling from the commonest to rarest
- Classify various types of neck swelling
- Justify the most likely cause of the neck swelling on the basis of history and physical examination in a given patient.
- To be able to select appropriate investigations for neck swellings
- Devise a management plan including medical, surgical and nuclear medicine options for a patient with goitre.
- To describe how to treat thyrotoxicosis and thyroid failure
- To justify when to operate on a thyroid swelling
- To describe different types of thyroid surgeries
- To describe the investigation and management of hyperparathyroidism
- To recognize the risks and complications of thyroid and parathyroid surgery

Informed consent for thyroid Surgery (Faculty with PGT or house officers as simulated patient) Practice session as well

At the end of the 40 minutes encounter the final year student will be able to:

- Enlist the complete protocols for obtaining an informed consent from a patient of thyroid swelling
- Enumerate the possible complications associated with surgery.
- Discuss the anaesthetic options that may be employed during the surgical procedure.
- Obtain an informed consent from a patient who is to undergo total thyroidectomy for a hyperthyroid goitre at present in a euthyroid state.
- Employ accepted guidelines for attaining an informed consent from a simulated patient of thyroid swelling who is to undergo elective surgery.

GASTRIC CANCER & GASTRIC OUTLET OBSTRUCTION (CBD-12)
<ul style="list-style-type: none"> • Justify the correct steps of recording a history from a given patient.
<ul style="list-style-type: none"> • Demonstrate the logical steps of examining a patient with a possible gastric outlet obstruction
<ul style="list-style-type: none"> • Record a pertinent history from the given patient so as to be able to reach a working diagnosis.
CASE BASED
<ul style="list-style-type: none"> • To summarize the gross and microscopic anatomy and pathophysiology of the stomach in relation to the disease
<ul style="list-style-type: none"> • Enlist the causes of gastric outlet obstruction.
<ul style="list-style-type: none"> • To be able to decide on the most appropriate techniques to use in the investigation of patients with gastric outlet obstruction
<ul style="list-style-type: none"> • To describe the critical importance of gastritis and helicobacter pylori in upper gastrointestinal disease
<ul style="list-style-type: none"> • To be able to investigate and treat peptic ulcer disease and its complications
<ul style="list-style-type: none"> • To be able to recognise the presentation of gastric cancer and understand the principals involved in its treatment
<ul style="list-style-type: none"> • Interpret the clinical findings to achieve a working diagnosis in a patient presenting with gastric outlet obstruction.
<ul style="list-style-type: none"> • Summarize a management approach for a patient diagnosed as gastric carcinoma.
GENITOURINARY DISEASES (CBD-13)
<ul style="list-style-type: none"> • Justify the correct steps of recording a history from a given patient.
<ul style="list-style-type: none"> • Demonstrate the logical steps of examining a patient with a possible genitourinary disease
<ul style="list-style-type: none"> • Record a pertinent history from the given patient so as to be able to reach a working diagnosis.
CASE BASED
<ul style="list-style-type: none"> • To recognise the important congenital abnormalities of the genitourinary tract
<ul style="list-style-type: none"> • The describe the aetiology, presentation and management of common genitourinary diseases
<ul style="list-style-type: none"> • Summarize the pathophysiology of renal stone formation
<ul style="list-style-type: none"> • Classify renal stones
<ul style="list-style-type: none"> • Recommend the management plan of sepsis in the upper urinary tract
<ul style="list-style-type: none"> • Diagnose a patient suffering from renal calculi on the basis of history and physical examination.
<ul style="list-style-type: none"> • Propose a management plan based on surgical principles for management of a patient with renal calculi.
<ul style="list-style-type: none"> • Enumerate the causes of haematuria.
<ul style="list-style-type: none"> • Devise a working plan to accurately identify specific cause of haematuria in given patient.
<ul style="list-style-type: none"> • Formulate a working plan for management of a patient with renal tumour.

<ul style="list-style-type: none"> • Interpret the findings on the basis of history and examination in a patient suffering from renal tumour.
<ul style="list-style-type: none"> • Elicit a pertinent history so as to be able to reach a diagnosis from a patient suffering from benign prostatic hypertrophy.
<ul style="list-style-type: none"> • Outline a management plan for a patient suffering from urinary bladder outlet obstruction.
<p>Informed consent for TURP (Faculty with PGT or house officers as simulated patient) Practice session as well At the end of the 40 minutes encounter the final year student will be able to:</p> <ul style="list-style-type: none"> • Enlist the complete protocols for obtaining an informed consent from a patient of benign prostatic hyperplasia • Enumerate the possible complications associated with TURP • Discuss the anaesthetic options that may be employed during the surgical procedure. • Employ accepted guidelines for attaining an informed consent from a simulated patient of benign prostatic hyperplasia who is to undergo TURP.
<p>PERIANAL DISEASES (CBD-13)</p>
<ul style="list-style-type: none"> • Justify the correct steps of recording a history from a given patient.
<ul style="list-style-type: none"> • Demonstrate the logical steps of examining a patient with perianal disease.
<ul style="list-style-type: none"> • Record a pertinent history from the given patient so as to be able to reach a working diagnosis.
<p>CASE BASED</p>
<ul style="list-style-type: none"> • To describe the anatomy of the anus and anal canal and their relationship to surgical disease and its treatment
<ul style="list-style-type: none"> • Explain the pathology, clinical presentation, investigation, differential diagnosis and treatment of diseases that affect the anus and anal canal
<ul style="list-style-type: none"> • Enlist the common perianal diseases
<ul style="list-style-type: none"> • Diagnose on the basis of history and examination a patient presenting with common perianal problem
<ul style="list-style-type: none"> • Design a management plan for a patient suffering from perianal diseases.
<ul style="list-style-type: none"> • Classify fistula-in-ano and devise a management plan of low and high anal fistula
<ul style="list-style-type: none"> • Describe the conservative management and enumerate surgical options for anal fissure
<ul style="list-style-type: none"> • Classify perianal abscess and device management plan for such patients
<ul style="list-style-type: none"> • Recommend a comprehensive management plan for the given patient of haemorrhoids including surgical procedures.
<ul style="list-style-type: none"> • Correlate the reasons for complications following perianal surgery.

**Informed consent for perianal surgery (faculty with PG or house officers as simulated patient)
practice session as well**

At the end of the 40 minutes encounter the final year student will be able to:

- Enlist the complete protocols for obtaining an informed consent from a patient undergoing perianal surgery.
- Enumerate the possible complications associated with surgery.
- Discuss the anaesthetic options that may be employed during the surgical procedure.
- Employ accepted guidelines for attaining an informed consent from a simulated patient of perianal disease who is to undergo perianal surgery.

LEARNING OBJECTIVES OF TUTORIALS:

MANAGEMENT OF TRAUMA (ATLS PROTOCOL): (TUTORIAL 1)

At the end of 2-hour tutorial final year students should be able to:

- Identify and assess the severely injured patients
- Define triage and classify the patients according to triage.
- Explain the role of trauma team in managing the trauma.
- Describe the basis of ATLS protocol
- Discuss primary survey and simultaneous resuscitation, secondary survey and definitive care of trauma patient.
- Describe the early treatment goals of multiply injured patients.
- Explain GCS and its implication.
- Discuss the principles of damaged control surgery versus early total care.

DRAINS AND TUBES: (TUTORIAL 2)

At the end of 2-hour tutorial final year students should be able to:

- Classify surgical drains and tubes.
- Describe the principles of working of various drains and tubes.
- Enlist the indications of insertions of various types of drains and tubes.
- Discuss the current role of drain placement in gastrointestinal and non-gastrointestinal surgery.
- Describe the indications, contraindications, method of insertion and complications of nasogastric tube.
- Explain the indications, contraindications, method of insertion and complications of T-tube.
- Discuss the principles of removal of T-tube.
- Describe the principles of removal of different types of drains.

SUTURES AND DRESSINGS: (TUTORIAL 3)

At the end of 2-hour tutorial final year students should be able to:

- Classify different types of sutures.
- Describe the physical structure, tensile and biological behavior, strength and absorbability of different types of suture material.
- Discuss the indications and contraindications of usage of different sutures.
- Classify different types of dressing used in surgical wounds.
- Describe the physical structure and mode of action of different types of wound dressings.
- Discuss the indications and contraindications of usage of different types of wound dressings.

COUNSELLING: (TUTORIAL 4)

At the end of 2-hour tutorial final year students should be able to:

- Apply the basic principles of counseling of patients for various types of diseases and surgeries.
- Show empathy towards patients.
- Discuss the indications, contraindications and complications of treatment offered.
- Explain efficiently the query of patients.
- Demonstrate the steps of counseling the patients of breast carcinoma, colorectal carcinoma, acute abdomen and esophageal carcinoma.

X-RAYS: (TUTORIAL 5)

At the end of 2-hour tutorial final year students should be able to:

- Enlist the indications of various types of radiological imaging required in surgery.
- Identify different imaging views of abdominal and chest x-rays
- Describe the basic steps of reading abdominal and chest X rays.
- Interpret various pathological findings in abdominal and chest X rays.
- Differentiate intestinal obstruction and intestinal perforation on X rays.
- Differentiate between haemothorax, pneumothorax and flail chest on Chest X rays.

PRE-OPERATIVE CARE: (TUTORIAL 6)

At the end of 2-hour tutorial final year students should be able to:

- Describe the basic principles of surgical, medical and anesthetic assessment of patient undergoing surgery.
- Identify the high-risk patients.
- Explain the basic steps of optimizing a patient undergoing surgery.
- Enlist the investigations needed for a particular procedure.
- Identify the common preoperative problem and their subsequent management.
- Discuss the steps of taking informed consent.
- Describe the importance of critical care in management of emergency cases.
- Enlist the basic steps of organizing preoperative care and operating list.

POSTOPERATIVE CARE AND COMPLICATIONS: (TUTORIAL 7)

At the end of 2-hour tutorial final year students should be able to:

- Discuss the integrated approach for the care of patient in postoperative period.
- Enlist the common postoperative problems encountered in the immediate postoperative period.
- Enumerate the postoperative complications specific to common surgical procedure.
- Discuss the investigations needed to recognize the common postoperative complications.
- Describe the management plan for treatment of common postoperative complications.

INSTRUMENTS: (TUTORIAL 8)

At the end of 2-hour tutorial final year students should be able to:

- Identify different surgical instruments.
- Describe the uses of different surgical instruments.
- Discuss different methods of sterilization.

INTRODUCTION TO PLASTIC SURGERY AND ITS IMPLICATIONS: (TUTORIAL 9)

At the end of 2-hour tutorial final year students should be able to:

- Define the scope of plastic surgery in modern surgery.
- Discuss the variety of plastic surgical technique used to restore bodily form and function.
- Describe the relevant anatomy and physiology of skin.
- Describe the concept of microsurgical reconstructive surgery

BURNS AND ITS MANAGEMENT: (TUTORIAL 10)

At the end of 2-hour tutorial final year students should be able to:

- Classify different types of burns and establish prevention and immediate care of burn patient.
- Define the criteria for acute admission in burns unit.
- Describe the major determinants affecting the outcome in burns patient.
- Explain the causes of burn and how to assess the area burnt.
- Predict the plan of fluid resuscitation thorough different formulae.
- Describe the nutritional management in burn patient.

BENIGN AND MALIGNANT SKIN LESIONS: (TUTORIAL 11)

At the end of 2-hour tutorial final year students should be able to:

- Describe the basic anatomy, structure and function of skin.
- Classify benign and malignant skin carcinomas.
- Enumerate the risk factors for skin cancers.
- Classify squamous cell carcinoma, basal cell carcinoma and melanoma.
- Enlist the investigations needed to reached the diagnosis.
- Describe the management plan of patient presenting with skin cancers.

CLEFT LIP AND PALATE: (TUTORIAL 12)

At the end of 2-hour tutorial final year students should be able to:

- Describe the developmental anatomy of lip and palate
- Discuss the causes of cleft lip and palate
- Describe the pathogenesis of cleft lip and plate
- Enlist the signs and symptoms of cleft lip and palate
- Enumerate the investigations needed to reach the diagnosis.
- Describe the management plan of cleft lip and plate including supportive therapy.

SKIN GRAFTS AND FLAP: (TUTORIAL 13)

At the end of 2-hour tutorial final year students should be able to:

- Define the anatomy of skin and the spectrum of plastic surgical techniques used to restore bodily form and function.
- Define the physiology of tissues used in reconstruction.
- Describe the concepts of various skin grafts and how to use them appropriately.
- Explain principles and use of graft and flaps.
- Discuss how to use plastic surgery to manage difficult and complex tissue loss.

DIABETIC FOOT: (TUTORIAL 14)

At the end of 2-hour tutorial final year students should be able to:

- Describe the metabolic changes in diabetes.
- Enlist the causes of diabetic foot.
- Discuss the pathogenesis of diabetic foot.
- Enlist the clinical signs and symptoms of diabetic foot.
- Enumerate the investigations needed to reach the diagnosis.
- Formulate the management plan of patient with diabetic foot including diabetic control.

DEGLOVING INJURIES: (TUTORIAL 15)

At the end of 2-hour tutorial final year students should be able to:

- Define degloving injury.
- Enlist the causes of degloving injury.
- Describe the pathophysiology of degloving injuries.
- Summarize the presentation of a patient with degloving injury.
- Outline the importance of collaboration and communication among the interprofessional team to improve outcomes for patients with degloving injuries.

Teaching Schedule for MBBS Students:

Third year MBBS:

Duration of clinical posting	8 weeks
Timing of clinical posting	3 Hours/day
Objective	Carry out a focused history & do Physical examination
Clinical postings	Outpatient's clinics, operation theatre, ward rounds.
Time table	Monday OPD Tuesday OPD Wednesday OPD Thursday OT Friday WARD/OPD/Bed side teaching
Assessment	Attendance 25% Log book 25% History and examination 25% Viva/OSCE 25%

Fourth Year MBBS:

Duration of clinical posting	8 weeks										
Timing of clinical posting	3 hours/day (Monday-Wednesday, Friday) 1.5 hours on Thursday										
Objective	Carry out a focused history, do physical examination, make differential diagnoses, justify the diagnosis										
Clinical Postings	Outpatient's clinics, operation theatre, ward rounds, and emergency room.										
Time Table	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Monday</td> <td>OT</td> </tr> <tr> <td>Tuesday</td> <td>OT</td> </tr> <tr> <td>Wednesday</td> <td>OPD</td> </tr> <tr> <td>Thursday</td> <td>WARD/OPD</td> </tr> <tr> <td>Friday</td> <td>WARD/OPD</td> </tr> </table>	Monday	OT	Tuesday	OT	Wednesday	OPD	Thursday	WARD/OPD	Friday	WARD/OPD
Monday	OT										
Tuesday	OT										
Wednesday	OPD										
Thursday	WARD/OPD										
Friday	WARD/OPD										
Assessment	<table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Attendance</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>Log book</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>History and examination</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>Viva/OSCE</td> <td style="text-align: right;">25%</td> </tr> </table>	Attendance	25%	Log book	25%	History and examination	25%	Viva/OSCE	25%		
Attendance	25%										
Log book	25%										
History and examination	25%										
Viva/OSCE	25%										

FINAL YEAR MBBS

Duration of clinical posting	8 weeks
Timing of clinical posting	3.5 hours/day
Timing of clinical tutorial	2 hours/day
Objective	Carry out a focused history, do physical examination, differential diagnoses, justify the diagnosis formulating the plan of management and follow-up.
Clinical postings	
Time Table	<p>Outpatient's clinics, operation theatre, ward rounds, case presentations.</p> <p>For Clinical Attachments</p> <p>Monday OPD</p> <p>Tuesday OT</p> <p>Wednesday OT</p> <p>Thursday OT</p> <p>Friday OPD/WARD/Bedside teaching</p>
Assessment	<p>Attendance 25%</p> <p>Log Book 25%</p> <p>OSCE 50%</p>

EXPECTATION FROM THE STUDENTS:

Expected clinical competencies

By the end of surgery course; students would be able to:

1. Carry out a focused history, do physical examination, justify the diagnosis, discuss management plans, and perform relevant follow-up of the progress of the following clinical conditions (at least one patient for each clinical condition)
 - Wounds and ulcers
 - Swellings
 - Common infections (e.g. Hand infections, face infections, erysipelas)
 - Anal disorders
 - Abdominal wall hernias
 - breast masses
 - obstructive jaundice
 - acute abdomen
 - Inguino-scrotal swellings
 - Common neck swellings (thyroid, lymph nodes)
 - Varicose veins
 - Diabetic foot
 - Dyspepsia
2. Provide 1st aid measures for acute abdomen.
3. Identify common surgical instruments and describe their use.
4. Prepare patients for different operative intervention.
5. Provide the appropriate postoperative care.
6. Identify cases that need hospital admission.
7. Write medical reports for referral and requests for investigations.

Practical or manual procedures: Refer to the manual skills which are necessary to the student; such as venipuncture, wound stitching and dressing. Skills labs will be held throughout the clerkships to assist the student in learning techniques for performing a variety of skills. After

attending the mandatory sessions, students will be expected to perform some of the skills under supervision in the clinic setting and are encouraged to actively seek out opportunities for practice. Skill lab will also be part of the OSCE exam. Procedure completion documented by supervising nurse or doctor in a specific sheet provided.

By the end of the course, the students should be able to

1. The setup and administration of oxygen therapy via a Hudson mask
2. The setup and administration of oxygen therapy via nasal prongs
3. The set up and capture of 12 lead ECG trace.
4. Attend and assist in the triage of three patients.
5. Application of a burns dressing
6. Application of a dressing to an abrasion.
7. Venous puncture, takes blood sample from vein & arteries.
8. Give intramuscular, intravenous injections and infusions.
9. Observe (or assist), operations as; hernia repair, cholecystectomy, appendectomy, laparoscopy, laparotomy, splenectomy, lymph node biopsy and resection anastomosis.

Interpersonal skills and responsibility

By the end of the course, the students should be able to:

- 1) Show responsible and compassionate behavior with the patient and his family, considering the cultural, social and economic background, and in dealing with all levels of education and abilities
- 2) Use the required communication skills for taking appropriate clinical history and conducting clinical examination.
- 3) Appreciate the role of perfect understanding of basic sciences (anatomy, physiology, pathology, etc.) and the pathophysiological process relevant to surgical practice.
- 4) Be acquainted with the epidemiological profile of the population and society, their heritage, cultural, social, geographic and economic characteristics, and relationship of all these to etiology and management of surgical diseases.
- 5) Have the knowledge and skills necessary to identify the health problems of a patient in emergency situations, common endemic or epidemic diseases and

disabilities, including health promotion, disease prevention, treatment, rehabilitation and follow up.

- 6) Wise selection of the most appropriate and cost-effective investigations to reach the proper diagnosis, considering the patient rights and abilities, and the available health system resources, weighing the pros and cons of surgical intervention.
- 7) Interact effectively with the surgical and other health teams, and appreciate the role of others
- 8) Be able to work within and leading a team, in clinical practice and continuous learning in a problem-based style.

Psychomotor skills to be developed

Perform surgical procedures that are basic to the expertise of all practicing physicians. Relate each procedure to the indications, contraindications and complications.

- Demonstrate the use of aseptic technique in patient care, for example, surgical scrub, preparation of the operative site and operating room protocol.
- Provide wound care (dressing changes)
- Perform suture techniques, including placing and removing sutures and staples
- Demonstrate knot tying
- Place an intravenous line
- Place a nasogastric tube
- Place a Foley's catheter
- Observe a central venous catheter
- Perform a digital rectal exam.
- Subcutaneous, intra-dermal, intramuscular and intravenous injection
- Intravenous medication
- Complete a laboratory / histopathology form for a relevant disease.

Communication skills: These are general skills which should be consciously and relentlessly developed in the medical graduate in order to improve their professional performance. It is clearly vital attribute for any doctor. The department of surgery encourages and teaches communication skills and supports and subscribes to

initiatives to improve communication skills in medical students and indeed as interns in their pre-registration year.

Each student is expected to use this logbook, on a daily basis, for recording his clinical experience during the course. Each activity should be evaluated and endorsed by the attending supervisor. Submitting the completed logbook will be one of the requirements for passing the course. This logbook will serve as a guide to medical schools to implement structured training programs in the surgery clinical courses, and to establish the managerial and administrative support for carrying out those programs.

Presentation skills: These are developed throughout the course, both to small and large groups. The clinical examination section of the final surgical examination requires the student to present their findings formally to their examiners, making it important for students to develop these skills.

Independent study: During the clinical years, students are strongly encouraged to pursue an independent study project, which may consist of laboratory research, clinical research or the application of computers in medicine. The project is an opportunity for students to pursue an area of interest in depth, to understand principles of scientific investigation and to work closely with a member of the department in the pursuit of knowledge. Independent study hours are protected times for students to prepare for core curriculum, patient rounds, or surgical cases. Every effort is made by the clerkship staff to save hours each week for this purpose. Students are encouraged to utilize this time for studying.

Attitude & responsibility: -

General principles

- Medicine is a profession of service. We are routinely called upon to subordinate our own priorities, needs, and desires to those of our patients. This applies to student-in-training as well.
- Attending to our own needs in a healthy way will in the long run improve our ability to be of sustained useful service to our patients.
- Patients should be protected from communicable disease.

- Required activities in all clerkships/rotations/electives in which you are enrolled must be completed satisfactorily to pass.
- Some absences are reasonably foreseeable; others are not.
- You should make yourself available, and be willing to participate.

Attendance:

As part of Baqai University regulations, student must fulfill the minimum 75% attendance in both lectures and clinical teaching. There will be a strict adherence to the rules and regulation of the college regarding that. A sign in sheet for all activities will be collected. Punctuality is expected. Absence from a lecture is not an option!

Attendance at rounds and teaching conferences is mandatory; the clerkship director has the prerogative to exact a grade penalty for excessive absences. Students will be required to see their patients before morning lectures or rounds.

Student responsibilities:

Privacy: Morally and legally it is imperative that the right of the patient is respected at all times. It is mandatory that information acquired regarding a patient not be communicated to a third party except in the course of clinical management of the patient. Particular sensitivity must be given to some medical examinations, e.g., breast, vaginal and rectal examinations. These must only be done with the express verbal consent of the patient by managing doctor.

Misrepresentation: A student should accurately represent himself to patients and others on the health care team. Students should never introduce themselves as “doctor” as this is clearly a misrepresentation of the student’s position, knowledge and authority.

Criticism of colleagues: it is unethical and harmful for a student to disparage, without good evidence, the professional competence, knowledge, qualifications or services of a colleague to staff, students, acquaintances or a patient. It is also unethical to imply by word, gesture, or deed that a patient has been poorly managed or mistreated by a colleague without tangible evidence. Professional

relations among all members of the medical community should be marked with civility. Thus, scholarly contributions should be acknowledged, slanderous comments and acts should be avoided and each person should recognize and facilitate the contributions of others to the community. The medical student will deal with professional staff and peer members of the health team in a cooperative and considerate manner.

Professionalism:

- Demonstrate a commitment to excellence in carrying out professional responsibilities.
- Act with altruism, honor and integrity in professional life.
- Respect patients' rights and wishes.
- Act in a respectful manner toward patients, faculty, colleagues and staff.
- Model good leadership in interactions with others, and foster the development of others.
- When appropriate, delineate how personal behaviors impact student colleagues, faculty, patients, and other members of the health care team.
- Demonstrate consideration for patient's comfort and concern for feelings and privacy during interviews and examinations.
- Demonstrate reliability, dependability, integrity and courtesy in all learning settings.
- Demonstrate emotional maturity and appropriately resolve tensions and conflicts.
- Recognize and describe own role and the roles of other members of the team.

Dress code: By design, the surgical clerkship requires extensive contact with patients during various phases of diagnosis and treatment of surgical disease. The students in the department of surgery represent the department as well as the attending physicians in the various institutions in which they work. Some guidelines have been established for the appropriate dress of the surgical students. Please don't substitute a T-shirt or some other informal clothing for the scrub top.

Universal precautions should always be practiced if exposure to blood or body fluids is anticipated. Remember that, all patients are assumed to have infectious blood and bodily fluids that contain transmissible disease.

Your dress should allow for diversity of self-expression whilst respecting patients' and the senior medical staff's expectation that medical students be appropriately attired and identifiable. *Patients interpret dress standards as a*

reflection of professional demeanor. Inappropriate casual dress may result in considerable anxiety amongst elderly patients as it is unprofessional. The average age of medical patients is two generations older than that of students and at times of stress and anxiety, such as during an illness, the expectations of patients become increasingly important such that they override personal need with regards to dress. So, strictly adhere to the following instruction.

- 1. Identity (ID) badges are visible at all times in the hospital.**
- 2. Gentlemen are attired in proper dress with lab coat.**
- 3. Sporting or excessively casual footwear, such as tennis shoes or casual sandals, be avoided.**
- 4. Hair cut do not result in patient discomfort during examination.**
- 5. Appropriate modesty be maintained, i.e., the avoidance of attire which results in undue display of décolletage, midriff, body piercing or body art.**
- 6. Appropriate standards of grooming are maintained, i.e., gentleman to be clean-shaven or bearded, but not unshaven or displaying “designer stubble”.**
- 7. If scrubs are worn outside the operating room, then they must always be covered with a white lab coat.**

Senior medical staff and tutors may be reluctant to conduct bedside tutorials if students are inappropriately attired. As a mark of professional courtesy and respect, students are requested to address members of the medical staff by title, e.g., professor, doctor, Mr., miss etc. Unless expressly permitted to do otherwise.

Universal Precautions & Infection Control: Students must practice "universal standard" (universal precautions) when dealing with patients. The actions described as "universal standard" (universal precautions) include, but are not limited to:

1. The use of barrier / protection methods when exposure to blood, body fluids, or mucous membranes of patient.
2. The use of gloves for handling blood and body fluids.
3. The wearing of gloves by students acting as phlebotomists.
- 4 The changing of gloves between patients.
5. The use of facial shield when appropriate (during all surgery and any other procedures where eye exposure to airborne material is possible).

6. The use of gown and apron for protection from splashing when appropriate.
7. The washing of hands between patients and if contaminated.
8. The washing of hands after removal of gloves.
9. The availability of rigid needle containers.
10. The avoidance of unnecessary handling of needles.
11. The careful processing of “sharps”
12. The avoidance of direct mouth-to-mouth resuscitation contact.
13. The minimization of spills and splatters.
14. The decontamination of all surfaces and devices after use.

ASSESSMENT METHODOLOGIES:

Final evaluation:

The evaluation of this course depends on the students' behavior and activity during the course is contributed by the following:

Modular Theory:

- Two theory modules (*Module I & III*) will be taken during the academic year. Each Modular theory will be composed of 50 single best answers and 4/3 short essay questions.
- Pre prof will be considered as *Module IV*, comprises of 50 single best answers and 6/5 short essay questions.

Modular OSCE:

- OSCE module will be taken at the end of surgery clinical rotation and will be considered as *Module II*.
- Modular OSCE will be composed of about 10 static and interactive stations.
- 06 stations are interactive and based on history taking, clinical examination, counseling, short cases, log book.
- In addition, 04 non-interactive stations shall be included. These stations should consist of clinical scenarios along with x-rays/photographs/instruments and case based on the general surgery, plastic surgery, pediatric surgery and trauma.

Theory:

- *Final theory examination will be comprising of two theory papers i.e., paper1 from general surgery and paper 2 from special surgery.*
- *Each final theory paper will be composed of 50 single best answers and 6/5 short essay questions.*

OSCE:

- *Modular OSCE will be composed of about 15 static and interactive stations.*
- *07 stations are interactive and based on history taking, clinical examination, counseling, short cases and log book.*
- *In addition, 08 non-interactive stations shall be included. These stations should consist of clinical scenarios along with x-rays/photographs/instruments and case based on the general surgery, orthopedics, pediatric surgery, urology and trauma.*

DISTRIBUTION OF TOPICS

WRITTEN EXAMINATION

PAPER I

1. Metabolic response to injury
2. Preoperative preparations
3. post-operative management
4. Care in the operating room
5. Perioperative management in high-risk patients
6. Anesthesia & pain relief
7. Fluid & electrolyte & acid base balance
8. Blood transfusion & shock
9. Thyroid / parathyroid
10. Trauma / disaster
11. Nutrition
12. Wound healing & tissue repair
13. Surgical infection
14. Principles of pediatric surgery
15. Orthopedics
16. Neurosurgery
17. Skin & subcutaneous tissue
18. Plastic surgery & burns, reconstruction of cleft lip & palate
19. Breast
20. Arterial, venous disorders & lymphatics

PAPER II

1. Thorax
2. Esophagus
3. Stomach & Duodenum
4. Liver
5. Gall & Bladder & Bile Ducts
6. Spleen
7. Pancreas
8. Peritoneum, Omentum & Mesentery
9. Diseases of Small & Large Intestine
10. Intestinal Obstruction
11. Appendix
12. Rectum
13. Perianal Conditions Anus & Anal Canal
14. Hernia & Umbilicus & Abdominal Wall
15. Kidney & Ureter
16. Urinary Bladder, Urethra & Penis
17. Testicles & Scrotum
18. Prostate Gland
19. Transplantation & Oncology

ASSESSMENT CRITERIA OF FINAL YEAR MBBS

THEORY	300	OSCE	300
marks		marks	
Internal Evaluation (Module I & II)	60 marks	Internal Evaluation (Module III & IV)	60 marks
Final theory paper I		OSCE	240 marks
BCQs	50 marks	(Log book, short cases)	
Short essay	70 marks		
Final theory paper 2			
BCQs	50 marks		
Short essay	70 marks		
	300 marks		300 marks

FEEDBACK TO THE STUDENTS

Instructions to the students:

Students are instructed to:

- 1- Maintain the logbook throughout the course period.
- 2- Make the required entries and seek evaluation and signature of the supervisor on the same day of the event.
- 3- Follow the classical paradigm of the stepwise progression along the competency scale in acquiring the manual skills: observing (1), assisting (2), doing under supervision (3), doing independently (4).
- 4- Identify the required level of competence for each manual procedure, listed in each section, by carefully reading the related statements. Those which start by a verb that describes a real like “perform”, “do” or “insert”; should be repeatedly practiced to reach mastery level. Statements which start by verbs like “observe”, “witness”, or “assist” refer to procedures that the student is required to achieve only level 1 or level 2 respectively.
- 5- Make use of the given feedback to improve clinical competencies, manual procedures, and communication skills.

TEACHING METHODOLOGY AND FACILITATOR EVALUATION:

Instructions to the teachers:

Teachers are requested to:

- 1- Carefully observe the performance of the student and point out the deficiencies; if any for correction.
- 2- Sign the activities done or attended by the student in the same day of performance.
- 3- Give constructive feedback to each student and document improvements in his performance with repeated practice.

- 4- Observe their progression along the competency scale in acquiring the manual skills: observing (1), assisting (2), doing under supervision (3), doing independently (4).

Student Course Evaluation Questionnaire
(To be filled by each Student at the time of Course Completion)

Department _____ Course No _____

Course Title _____ Teacher Name: _____

Year of Study _____ Semester / Term _____

Please give us your views so that Course quality can be improved. You are encouraged to be frank and constructive in your comments

CORE QUESTIONS

Course Content and Organization	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. The course objectives were clear	<input type="checkbox"/>				
2. The Course workload was manageable	<input type="checkbox"/>				
3. The Course was well organized (e.g., timely access to materials, notification of changes, etc.)	<input type="checkbox"/>				
4. Comments					

Student Contribution	<input type="checkbox"/> <20%	<input type="checkbox"/> 21-40%	<input type="checkbox"/> 41-60%	<input type="checkbox"/> 61-80%	<input type="checkbox"/> >81%
	Strongly Agree	Agree	uncertain	Disagree	Strongly Disagree
5. Approximate level of your own attendance during the whole Course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I participated actively in the Course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. I think I have made progress in this Course	<input type="checkbox"/>				
8. Comments					

Learning Environment and Teaching Methods	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
9. I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials, practical etc.)	<input type="checkbox"/>				
10. The learning and teaching methods encouraged participation.	<input type="checkbox"/>				
11. The overall environment in the class was conducive to learning.	<input type="checkbox"/>				
12. Classrooms were satisfactory	<input type="checkbox"/>				
13. Comments					

Learning Resources	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
14. Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.	<input type="checkbox"/>				
15. Recommended reading Books etc. were relevant and appropriate	<input type="checkbox"/>				
16. The provision of learning resources in the library was adequate and appropriate	<input type="checkbox"/>				
17. The provision of learning resources on the Web was adequate and appropriate (if relevant)	<input type="checkbox"/>				
18 Comments					

Quality of Delivery	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
19. The Course stimulated my interest and thought on the subject area	<input type="checkbox"/>				
20. The pace of the Course was appropriate	<input type="checkbox"/>				
21. Ideas and concepts were presented clearly	<input type="checkbox"/>				
22. Comments					

Assessment	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
23. The method of assessment were reasonable	<input type="checkbox"/>				
24. Feedback on assessment was timely	<input type="checkbox"/>				
25. Feedback on assessment was helpful	<input type="checkbox"/>				
26. Comments					

Additional Core Questions

Instructor / Teaching Assistant Evaluation	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
27. I understood the lectures	<input type="checkbox"/>				
28. The material was well organized and presented	<input type="checkbox"/>				
29. The instructor was responsive to student needs and problems	<input type="checkbox"/>				

30. Had the instructor been regular throughout the course?

Tutorial	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
30. The material in the tutorials was useful	<input type="checkbox"/>				
31. I was happy with the amount of work needed for tutorials	<input type="checkbox"/>				
32. The tutor dealt effectively with my problems	<input type="checkbox"/>				
Practical	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
33. The material in the practical was useful	<input type="checkbox"/>				
34. The demonstrators dealt effectively with my problems.	<input type="checkbox"/>				

Overall Evaluation

35. The best features of the Course were:

36. The Course could have been improved by:

Equal Opportunities Monitoring (Optional)

37. The University does not tolerate discrimination on any irrelevant distinction (e.g., race, age, gender) and is committed to work with diversity in a wholly positive way. Please indicate below anything in relation to this Course which may run counter to this objective:

Demographic Information: (Optional)

38. Full/part time study: Full Time Part Time
39. Do you consider yourself to be disabled: Yes No
40. Domicile:
41. Gender: Male Female
- ❖ 42. Age Group: less than 22 22-29 over 29
43. Campus: Distance Learning/ Collaborative

Teacher Evaluation Form
(To be filled by the student)

Course Title and Number: _____

Name of Instructor: _____ Semester _____

Department: _____ Degree _____

Use the scale to answer the following questions below and make comments

A: Strongly Agree B: Agree C: Uncertain D: Disagree E: Strongly Disagree

Instructor:					
The instructor is prepared for each class	A	B	C	D	E
The instructor demonstrates knowledge of the subject	A	B	C	D	E
The instructor has completed the whole course	A	B	C	D	E
The instructor provides additional material apart from the textbook	A	B	C	D	E
The instructor gives citations regarding current situations with reference to Pakistani context.	A	B	C	D	E
The instructor communicates the subject matter effectively	A	B	C	D	E
The instructor shows respect towards students and encourages class participation	A	B	C	D	E
The instructor maintains an environment that is conducive to learning	A	B	C	D	E
The instructor arrives on time	A	B	C	D	E
The instructor leaves on time	A	B	C	D	E
The instructor is fair in examination	A	B	C	D	E
The instructor returns the graded scripts etc. in a reasonable amount of time	A	B	C	D	E
The instructor was available during specified office hours	A	B	C	D	E
Course:					

The Subject matter presented in the course has increased your knowledge of the subject	A	B	C	D	E
The syllabus clearly states course objectives requirements, procedures and grading criteria	A	B	C	D	E
The course integrates theoretical course concepts with real-world applications	A	B	C	D	E
The assignments and exams covered the materials presented in the course	A	B	C	D	E
The course material is modern and updated	A	B	C	D	E

Comments about:

Instructor:

Course:

Informal Internal Assessment by the Faculty

There will be no formal allocation of marks for the component of Internal Assessment so that students are willing to confront their weaknesses rather than hiding them from their instructors.

READING MATERIALS

Independent Reading:

The suggested textbooks for the surgical clerkships are

- Bailey & Love's Short Practice of Surgery, 28th Edition
- Browse's Introduction to the Symptoms and Signs of Surgical Disease (6th Edition)
- Current Diagnosis & Treatment Surgery, 15th Edition by Gerard M. Doherty
- Essentials of General Surgery, 5th Edition by Peter F. Lawrence.
- NMS surgery casebook by Bruce E. Jarrell
- Surgery: Pre-Test self-assessment and review by Norman J Snow
- Surgical Recall by Lorne Black Bourne.

It is advised that students should extensively read textbooks for preparation of examination. It is expected that the student will spend approximately 8-12 hours per week reading independently.

Websites for Surgery Clerkship

1. [www.emedicine.com/ GENERAL-SURGERY.HTM](http://www.emedicine.com/GENERAL-SURGERY.HTM)
2. www.priamlpictures.com/index.aspx
3. www.websurg.com
4. www.nim.nih.gov/research/visible/visible-human.html
5. www.ncbi.nlm.nih.gov/books/bv.fcgi
6. www.vesalius.com
7. www.aamc.org/mededportal

Website to Access Videos and Presentations:

8. www.upstate.edu/courseware/video/
American College of Surgeons Website for Access to Modules (Knot Tying, Suturing, Chest Tubes, Etc.)
9. www.elearning.facs.org