

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core (Y/N) |
|---------------|---|---------------------------|---------------------------------|-----------------------|
| SU1.1 | Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators. | K | KH | Y |
| SU1.2 | Describe the factors that affect the metabolic response to injury. | K | KH | Y |
| SU1.3 | Describe basic concepts of perioperative care. | K | KH | Y |
| SU2.1 | Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring. | K | KH | Y |
| SU2.2 | Describe the clinical features of shock and its appropriate treatment. | K | KH | Y |
| SU2.3 | Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care | A/C | SH | Y |
| SU3.1 | Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion. | K | KH | Y |
| SU3.2 | Observe blood transfusions. | S | SH | Y |
| SU3.3 | Counsel patients and family/ friends for blood transfusion and blood donation. | A/C | SH | Y |
| SU4.1 | Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns. | K | KH | Y |
| SU4.2 | Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment. | K | KH | Y |
| SU4.3 | Discuss the Medicolegal aspects in burn injuries. | K | KH | Y |
| SU4.4 | Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care. | A /C | SH | Y |
| SU5.1 | Describe normal wound healing and factors affecting healing. | K | KH | Y |
| SU5.2 | Elicit, document and present a history in a patient presenting with wounds. | C | SH | Y |
| SU5.3 | Differentiate the various types of wounds, plan and observe management of wounds. | K | KH | Y |

| | | | | |
|--------|--|-------|----|---|
| SU5.4 | Discuss medico legal aspects of wounds | K | KH | Y |
| SU6.1 | Define and describe the aetiology and pathogenesis of surgical Infections | K | KH | Y |
| SU6.2 | Enumerate Prophylactic and therapeutic antibiotics Plan appropriate management | K | KH | Y |
| SU7.1 | Describe the Planning and conduct of Surgical audit | K | KH | Y |
| SU7.2 | Describe the principles and steps of clinical research in General Surgery | K | KH | Y |
| SU8.1 | Describe the principles of Ethics as it pertains to General Surgery | K | KH | Y |
| SU8.2 | Demonstrate Professionalism and empathy to the patient undergoing General Surgery | A/C | SH | Y |
| SU8.3 | Discuss Medico-legal issues in surgical practice | A/C | KH | Y |
| SU9.1 | Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient | C | KH | Y |
| SU9.2 | Biological basis for early detection of cancer and multidisciplinary approach in management of cancer | C | KH | Y |
| SU9.3 | Communicate the results of surgical investigations and counsel the patient appropriately | C | SH | Y |
| SU10.1 | Describe the principles of perioperative management of common surgical procedures | K | KH | Y |
| SU10.2 | Describe the steps and obtain informed consent in a simulated environment | S/A/C | SH | Y |
| SU10.3 | Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures. | S | KH | Y |
| SU10.4 | Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment | S | P | Y |
| SU11.1 | Describe principles of Preoperative assessment. | K | KH | Y |
| SU11.2 | Enumerate the principles of general, regional, and local Anaesthesia. | K | KH | Y |
| SU11.3 | Demonstrate maintenance of an airway in a mannequin or equivalent | S | SH | Y |
| SU11.4 | Enumerate the indications and principles of day care General Surgery | K | KH | Y |

| | | | | |
|--------|--|---|----|---|
| SU11.5 | Describe principles of providing post-operative pain relief and management of chronic pain. | K | KH | Y |
| SU11.6 | Describe Principles of safe General Surgery | K | KH | Y |
| SU12.1 | Enumerate the causes and consequences of malnutrition in the surgical patient | K | KH | Y |
| SU12.2 | Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient | K | KH | Y |
| SU12.3 | Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications | K | KH | Y |
| SU13.1 | Describe the immunological basis of organ transplantation | K | KH | Y |
| SU13.2 | Discuss the Principles of immunosuppressive therapy.Enumerate Indications, describe surgical principles, management of organ transplantation | K | KH | Y |
| SU13.3 | Discuss the legal and ethical issues concerning organ donation | K | KH | Y |
| SU13.4 | Counsel patients and relatives on organ donation in a simulated environment | S | SH | Y |
| SU14.1 | Describe Aseptic techniques, sterilization and disinfection. | K | KH | Y |
| SU14.2 | Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general. | K | KH | Y |
| SU14.3 | Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles) | K | KH | Y |
| SU14.4 | Demonstrate the techniques of asepsis and suturing in a simulated environment | S | SH | Y |
| SU15.1 | Describe classification of hospital waste and appropriate methods of disposal. | K | KH | Y |
| SU16.1 | Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery | K | K | Y |
| SU17.1 | Describe the Principles of FIRST AID | S | KH | Y |
| SU17.2 | Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment | S | SH | Y |
| SU17.3 | Describe the Principles in management of mass casualties | K | KH | Y |

| | | | | |
|---------|---|---|----|---|
| SU17.4 | Describe Pathophysiology, mechanism of head injuries | K | KH | Y |
| SU17.5 | Describe clinical features for neurological assessment and GCS in head injuries | K | KH | Y |
| SU17.6 | Chose appropriate investigations and discuss the principles of management of head injuries | K | KH | Y |
| SU17.7 | Describe the clinical features of soft tissue injuries. Chose appropriate investigations and discuss the principles of management. | K | KH | Y |
| SU17.8 | Describe the pathophysiology of chest injuries. | K | KH | Y |
| SU17.9 | Describe the clinical features and principles of management of chest injuries. | K | KH | Y |
| SU17.10 | Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flail chest in simulated environment. | S | SH | Y |
| SU18.1 | Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections. | K | KH | Y |
| SU18.2 | Classify skin tumors Differentiate different skin tumors and discuss their management. | K | KH | Y |
| SU18.3 | Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan. | S | SH | Y |
| SU19.1 | Describe the etiology and classification of cleft lip and palate | K | KH | Y |
| SU19.2 | Describe the Principles of reconstruction of cleft lip and palate | K | KH | Y |
| SU20.1 | Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer. | K | KH | Y |
| SU20.2 | Enumerate the appropriate investigations and discuss the Principles of treatment. | K | K | Y |
| SU21.1 | Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands | K | KH | Y |
| SU21.2 | Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands | K | KH | Y |
| SU22.1 | Describe the applied anatomy and physiology of thyroid | K | KH | Y |

| | | | | |
|--------|--|------|----|---|
| SU22.2 | Describe the etiopathogenesis of thyroïdal swellings | K | KH | Y |
| SU22.3 | Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management | S | SH | Y |
| SU22.4 | Describe the clinical features, classification and principles of management of thyroid cancer | K | KH | Y |
| SU22.5 | Describe the applied anatomy of parathyroid | K | KH | Y |
| SU22.6 | Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management | K | KH | Y |
| SU23.1 | Describe the applied anatomy of adrenal glands | K | KH | Y |
| SU23.2 | Describe the etiology, clinical features and principles of management of disorders of adrenal gland | K | KH | Y |
| SU23.3 | Describe the clinical features, principles of investigation and management of Adrenal tumors | K | KH | Y |
| SU24.1 | Describe the clinical features, principles of investigation, prognosis and management of pancreatitis. | K | KH | Y |
| SU24.2 | Describe the clinical features, principles of investigation, prognosis and management of pancreatic endocrine tumours | K | KH | Y |
| SU24.3 | Describe the principles of investigation and management of Pancreatic disorders including pancreatitis and endocrine tumors. | K | KH | Y |
| SU25.1 | Describe applied anatomy and appropriate investigations for breast disease | K | KH | Y |
| SU25.2 | Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast | K | KH | Y |
| SU25.3 | Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast. | K | KH | Y |
| SU25.4 | Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast | A/ C | SH | Y |

| | | | | |
|--------|---|---|----|---|
| SU25.5 | Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent | S | SH | Y |
| SU26.1 | Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases | K | K | Y |
| SU26.3 | Describe the clinical features of mediastinal diseases and the principles of management | K | K | Y |
| SU26.4 | Describe the etiology, pathogenesis, clinical features of tumors of lung and the principles of management | K | K | Y |
| SU27.1 | Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease. | K | KH | Y |
| SU27.2 | Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease | S | SH | Y |
| SU27.3 | Describe clinical features, investigations and principles of management of vasospastic disorders | K | KH | Y |
| SU27.4 | Describe the types of gangrene and principles of amputation | K | KH | Y |
| SU27.5 | Describe the applied anatomy of venous system of lower limb | K | K | Y |
| SU27.6 | Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins | K | KH | Y |
| SU27.7 | Describe pathophysiology, clinical features, investigations and principles of management of Lymph edema, lymphangitis and Lymphomas | K | KH | Y |
| SU27.8 | Demonstrate the correct examination of the lymphatic system | S | SH | Y |
| SU28.1 | Describe pathophysiology, clinical features, Investigations and principles of management of Hernias | K | KH | Y |
| SU28.2 | Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias. | S | SH | Y |
| SU28.3 | Describe causes, clinical features, complications and principles of mangament of peritonitis | K | K | Y |

| | | | | |
|---------|---|---|----|---|
| SU28.4 | Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumors | K | K | Y |
| SU28.5 | Describe the applied Anatomy and physiology of esophagus | K | K | Y |
| SU28.6 | Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus | K | K | Y |
| SU28.7 | Describe the applied anatomy and physiology of stomach | K | KH | Y |
| SU28.8 | Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophic pyloric stenosis, Peptic ulcer disease, Carcinoma stomach | K | KH | Y |
| SU28.9 | Demonstrate the correct technique of examination of a patient with disorders of the stomach | S | SH | Y |
| SU28.10 | Describe the applied anatomy of liver. Describe the clinical features, Investigations and principles of management of liver abscess, hydatid disease, injuries and tumors of the liver | K | KH | Y |
| SU28.11 | Describe the applied anatomy of spleen. Describe the clinical features, investigations and principles of management of splenic injuries. Describe the post-splenectomy sepsis - prophylaxis | K | KH | Y |
| SU28.12 | Describe the applied anatomy of biliary system. Describe the clinical features, investigations and principles of management of diseases of biliary system | K | KH | Y |
| SU28.13 | Describe the applied anatomy of small and large intestine | K | KH | Y |
| SU28.14 | Describe the clinical features, investigations and principles of management of disorders of small and large intestine including neonatal obstruction and Short gut syndrome | K | KH | Y |
| SU28.15 | Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications. | K | KH | Y |
| SU28.16 | Describe applied anatomy including congenital anomalies of the rectum and anal canal | K | KH | Y |

| | | | | |
|---------|--|---|----|---|
| SU28.17 | Describe the clinical features, investigations and principles of management of common anorectal diseases | K | KH | Y |
| SU28.18 | Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan | S | SH | Y |
| SU29.1 | Describe the causes, investigations and principles of management of Hematuria | K | KH | Y |
| SU29.2 | Describe the clinical features, investigations and principles of management of congenital anomalies of genitourinary system | K | KH | Y |
| SU29.3 | Describe the Clinical features, Investigations and principles of management of urinary tract infections | K | KH | Y |
| SU29.4 | Describe the clinical features, investigations and principles of management of hydronephrosis | K | KH | Y |
| SU29.5 | Describe the clinical features, investigations and principles of management of renal calculi | K | KH | Y |
| SU29.6 | Describe the clinical features, investigations and principles of management of renal tumours | K | KH | Y |
| SU29.7 | Describe the principles of management of acute and chronic retention of urine | K | KH | Y |
| SU29.8 | Describe the clinical features, investigations and principles of management of bladder cancer | K | KH | Y |
| SU29.9 | Describe the clinical features, investigations and principles of management of disorders of prostate | K | KH | Y |
| SU29.10 | Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent | S | SH | Y |
| SU29.11 | Describe clinical features, investigations and management of urethral strictures | K | KH | Y |
| SU30.1 | Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis. | K | KH | Y |
| SU30.2 | Describe the applied anatomy clinical features, investigations and principles of management of undescended testis. | K | KH | Y |

| | | | | |
|--------|---|---|----|---|
| SU30.3 | Describe the applied anatomy clinical features, investigations and principles of management of epididymo-orchitis | K | KH | Y |
| SU30.4 | Describe the applied anatomy clinical features, investigations and principles of management of varicocele | K | KH | Y |
| SU30.5 | Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele | K | KH | Y |
| SU30.6 | Describe classification, clinical features, investigations and principles of management of tumours of testis | K | KH | Y |

Column C: K- Knowledge, S – Skill , A - Attitude / professionalism, C- Communication. Column D: K – P

| Suggested Teaching Learning method | Suggested Assessment method | Vertical Integration | Horizontal Integration |
|--|------------------------------------|-----------------------------|-------------------------------|
| Lecture, Bed side clinic, Small group discussion | Written/ Viva voce | Physiology, Biochemistry | |
| Lecture, Bed side clinic, Small group discussion | Written/ Viva voce | Biochemistry | |
| Lecture, Bed side clinic, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | Pathology, Physiology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| DOAP session | Skill assessment | AETCOM | |
| Lecture, Small group discussion | Written/ Viva voce | Pathology | |
| Small group discussion, DOAP session | Skills assessment/ Log book | | |
| DOAP session | Skills assessment | | |
| Lecture, Small group discussion | Written/ Viva voce | Physiology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Small group discussion, Role play, Skills assessment | Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | Pathology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | | |

| | | | |
|---|--------------------------------------|---------------------------------------|-----------------|
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | Microbiology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | Community Medicine | |
| Lecture, Small group discussion | Written/ Viva voce | Community Medicine | |
| Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |
| Lecture, Small group discussion, DOAP session | Written/ Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |
| Lecture, Small group discussion | Written/ Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |
| Lecture, Small group discussion | Written/ Viva voce | Biochemistry, Microbiology, Pathology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| DOAP session | Skill assessment | | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| DOAP session | Skill assessment/ Log book | AETCOM | |
| DOAP sessions | Log book | | |
| DOAP session | Skill assessment | | |
| Lecture, Small group discussion | Written/ Viva voce | | Anaesthesiology |
| Lecture, Small group discussion | Written/ Viva voce | | Anaesthesiology |
| DOAP session | Skill assessment | | Anaesthesiology |
| Lecture, Small group discussion | Written/ Viva voce | | |

| | | | |
|--|--|----------------------------|-----------------|
| Lecture, Small group discussion | Written/ Viva voce | | Anaesthesiology |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion, Bedside clinic | Written/ Viva voce | Physiology | |
| Lecture, Small group discussion, Bedside clinic | Written/ Viva voce | Physiology | |
| Lecture, Small group discussion, Bedside clinic | Written/ Viva voce | Biochemistry | |
| Lecture, Small group discussion | Written/ Viva voce | Microbiology | |
| Lecture, Small group discussion | Written/ Viva voce | Microbiology, Pharmacology | |
| Lecture, Small group discussion | Written/ Viva voce | AETCOM | |
| DOAP session | Skill assessment | AETCOM | |
| Lecture, Small group discussion | Written/ Viva voce | Microbiology | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| DOAP session | Skill assessment/ Log book | | |
| Lecture, Small group discussion | Written/ Viva voce | Microbiology | |
| Lecture, Demonstration, Bedside clinic, Discussion | Theory/ Practical / Orals/Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| DOAP session | Skill assessment | | Anaesthesiology |
| Lecture, Small group discussion | | | |

| | | | |
|--|--|--|---------------|
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| DOAP session | | | |
| Lecture, Small group Discussion | | | |
| Lecture, Small group discussion | | | |
| Bedside clinic, Small group discussion, DOAP session | | | |
| Lecture, Small group Discussion | | | Human Anatomy |
| Lecture, Small group Discussion | | | Human Anatomy |
| Lecture, Small group discussion | | | ENT |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | Human Anatomy |

| | | | |
|--|--------------------|---------------|------------------|
| Lecture, Small group discussion | | | Pathology |
| Bedside clinic | Skill assessment | | |
| Lecture, Small group discussion | Written/ Viva voce | | |
| Lecture, Small group discussion | Written/ Viva voce | Human Anatomy | |
| Lecture, Small group discussion | Written/ Viva voce | | General Medicine |
| Lecture, Small group discussion | Written/ Viva voce | Human Anatomy | |
| Lecture, Small group discussion | Written/ Viva voce | | General Medicine |
| Lecture, Small group discussion, Demonstration | Written/ Viva voce | | |
| Lecture, Small group discussion | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion | | | Human Anatomy |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion, Demonstration | | | Radiodiagnosis |
| DOAP session | | | |

| | | | |
|---|--|--|--|
| DOAP session | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| DOAP session | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion | | | |
| DOAP session, Bedside clinic | | | |
| Lecture, Small group discussion | | | |
| DOAP session, Bedside clinic | | | |
| Lecture, Small group discussion, Bedside clinic | | | |

| | | | |
|--|--|--|---------------------------|
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy, Physiology |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion | | | Human Anatomy |
| Lecture, Small group discussion | | | |
| DOAP session, Bedside clinic | | | |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |

| | | | |
|--|--|--|---------------|
| Lecture, Small group discussion, Demonstration | | | |
| Bedside clinic, DOAP session, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | Human Anatomy |
| Lecture, Small group discussion | | | Microbiology |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| Lecture, Small group discussion | | | |
| DOAP session | | | |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |

| | | | |
|--|--|--|---------------|
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | Human Anatomy |
| Lecture, Small group discussion, Demonstration | | | |
| Knows, KH - | | | |