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| **Course title** | **Code** | **Semester** | **Type of course** | **Course volume (Contact hours)** | **ECTS** |
| **General Surgery I** | **MED**  **4004** | **VII** | **Mandatory** | 99 | **8** |
| **Faculty, the educational program and level of education** | * School of Medicine and Health Sciences * Higher Medical Educational Program “Medicine” * One cycle 6-year | | | | |

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| **Learning Course Content** |
| * The Thyroid gland * Anatomy, physiology, functional tests. Thyrotoxicosis - clinical findings, differential diagnosis and treatment. Hypothyroidism, Inflammatory conditions of the thyroid gland, Goiter. Surgical approach to thyroid diseases. Risks and complications of thyroid surgery. * The parathyroid glands * The anatomy and physiology of the parathyroid glands. Hypercalcaemia and * appropriate emergency management; The aetiology, presentation, investigation and * management of primary secondary and tertiary hyperparathyroidism; * primary hyperparathyroidism, hypothyroidism. The aetiology and management of parathyroid carcinoma * The adrenal glands and other abdominal endocrine disorders * The anatomy and physiology of the adrenal and other abdominal endocrine glands. The diagnosis and role of surgery. management of endocrine * disorders and role of surgery. * The Trachea, Thorax & Lung * Anatomy of trachea, thorax and lung. Tracheal injury. Tracheal fistulas. Tracheal neoplasms. Thoracic surgical approaches. Postoperative care. Lung neoplasms. * Metastatic symptoms. The assessment of patients requiring lung surgery. * Chest wall and Mediastinum * Chest wall mass. Chest wall neoplasms. Mediastinum general concepts. Diagnostic evaluation. Neoplasms. Mediastinal cysts. Ectopic endocrine glands. Mediastinitis. * Pleura and pleural space * Pleura and pleural space anatomy. Pleural effusion. Empyema. Chylothorax. Access and drainage of pleural fluid collections. Tumors of pleura. Hydrothorax. Spontaneous Pneumothorax. Pneumothorax * Surgical oncology as applied to chest surgery * Arterial disorders * The nature and associated features of occlusive peripheral arterial disease; * The investigation and treatment options for occlusive peripheral arterial disease; * The principles of management of the severely ischaemic limb * Venous disorders * Venous anatomy and the physiology of venous return; The pathophysiology of venous hypertension; The clinical significance and management of superficial venous reflux; The management of venous ulceration; Venous thromboembolism * Lymphatic disorders * The main functions and development of the lymphatic system; The causes of limb swelling; The aetiology, clinical features, investigations and treatment of lymphoedema * Cardiac surgery * The role of surgery in valvular heart disease; The special role of surgery in congenital heart disease; The management of aortic vascular and pericardial disease * Examination of the abdomen. * The oesophagus: * Esophagus– anatomy. Physiology. Diagnostic methods. Esophageal motility disorders, Achalasia – clinical presentation, differential diagnosis, complications, treatment. Diverticula (Zencker’s, Supradiaphragmatic, Traction). Chemical and Thermal injury of esophagus, scarring and stenosis, perforation. GERD, reflux esophagitis. Esophageal cancers – risk factors, clinical presentation,diagnosis,treatment,prophylaxis. Esophageal plastic surgery – indications, operation techniques, complications. Esophageal Motility Disorders; Esophagus Tumors and Carcinoma. Caustic Injuries, Corrosive Esophagitis. * The spleen * Diaphragmatic hernia. Hiatal hernia, posterolateral hernia,herniation in a foramen of Morgan. Eventeration of diaphragm, diaphragmatic rupture - clinical presentationdiagnosis და surgical treatment, methods of diaphragm operations. * Abdominal wall, hernia and umbilicus * abdominal wall and inguinal region anatomy, diagnostic methods. Classification of abdominal wall hernia. Inguinal, femoral, umbilical, Linea Alba, traumatic, postoperative– etiology,pathogenesis, clinical presentationdiagnosis, treatmentand prophylaxis. Surgical treatment of anterior abdominal wall, inguinal and femoral hernia – indications,operation techniques. Complications of abdominal wall hernia. Incarceration, types, Irreducible hernia, - etiology, pathogenesis, clinical presentation, diagnosis, surgical strategy, operation techniques. Acute Abdomen. Peritonitis. Acute Appendicitis- clinical presentation, differential diagnosis, complications, surgical treatment. İleus. Inflammatory Bowel Disease; * Gastric diseases. * Gastricanatomyand physiology. Gastric functionaldisorders. Gastric ulcer disorders - clinical presentation, differentialdiagnosis, complications, treatment. Zollinger- Ellisonsyndrome. Duodenal ulcers – clinical presentation, diagnosis, drug treatment, surgical treatmentoperation techniques. Pylorus stenosis.Perforation of peptic ulcer – clinical presentation, diagnosis, treatment. Acute stress and drug induced ulcers. Gastrointestinal diseases – abdominal pain, decreased appetite, nausea, vomiting, constipation and diarrhea. * Upper gastrointestinal bleeding, bleeding from peptic ulcer. Mallory Weisssyndrome. Hemobilia. Early and delayed complications of peptic ulcer surgery. Gastric Tumors and Carcinoma. Gastric cancer – risk factors, clinical presentation, diagnosis, treatment და prognosis.Gastric polyps.Bezoars.Gastric diverticula. Duodenal diverticula. * Biliary duct diseases. * Biliary duct anatomy and physiology. Biliary tract strictures. Diagnostic methods. Jaundice. Pathogenesis of choledocholithiasis. Acute and chronic cholecystitis: clinical presentation, differential diagnosis, treatment. Cholangitis, Choledocholithiasis, Post cholecystectomy syndrome. Gallbladder Tumors and Carcinoma. * Liver diseases. * Surgical anatomy of the liver. Diagnostic methods. Liver trauma – clinical presentation, complications, treatment. Spontaneous rupture of the Liver. Primary malignant tumors of the liver. Benign tumors and cysts of the liver. Hepatic abscess – clinical presentation, differential diagnosis, complications, treatment. * Portal hypertension – etiology, pathophysiology, anatomical structure of the pathology. Acute bleeding from venous varicosities – clinical presentation, treatment. Extrahepatic venous obstruction. Budd Chiari syndrome. Surgical treatment of portal hypertension. Hepatic coma. |
| **Textbooks and Materials** |
| * Schwartz's principles Of Surgery - Brunicardi, Charles F. Mc Graw Hill Edıcation; 11th.ed. 2019; * General Surgical Operations.-R.M.Kirk; Churchill Livingstone Elvesier; 5th.ed. 2005; * Current Surgical Therapy-John L.Cameron; Mosby Elsevier; 8th.ed. 2004; * Essential Surgery: Problems, Diagnosis and Management: With STUDENT CONSULT Online Access- Quick, Clive RG; Saeb-Parsy, Kourosh; Churchill Livingstone; 5th.ed. 2014; e-book; * Essential Practice of Surgery : Basic Science and Clinical Evidence-Norton ,Jeffrey A;Bollinger; Springer; 2002; |