Faculty of Medicine / MEDICINE / SURGERY

Course:	SURGERY			
Course ID	**Course status**	**Semester**	**ECTS credits**	**Lessons** (Lessons+Exercises+Laboratory)
5933	Mandatory	10	24	5.5+7.5+0
Programs	MEDICINE			
Prerequisites	No prerequisits			
Aims	Studying the treatment of injuries and diseases through surgical methods			
Learning outcomes	After completing two semesters of Surgery, a medical student should possess the following learning outcomes: 1. Possess knowledge of surgical anatomy and pathophysiology of surgical diseases. 2. Able to take a patients history and perform a surgical examination. 3. Proficient in using supplementary diagnostic procedures - echocardiography, X-ray diagnostics, CT and MRI diagnostics, and laboratory diagnostics. 4. Able to recognize emergency surgical conditions, provide primary care for critically ill and injured patients, and provide basic cardiopulmonary resuscitation. 5. Able to apply the principles of hand disinfection, surgical field sterilization, and sterilization of surgical materials and instruments. 6. Capable of using surgical instruments, providing primary wound care, performing wound suturing, incisions, hemostasis, applying bandages and immobilization devices for injuries, organizing patient transport, while maintaining vital functions and implementing measures to stop bleeding until admission to a surgical facility. 7. Capable of making a decision to refer a patient to a surgeon for further surgical treatment after examining the patient and applying diagnostic procedures.			
Lecturer / Teaching assistant	Prof. dr R. Lazović; Prof. dr M. Radunović; Prof. dr Aleksandar Nikolić, Doc. dr Novak Lakićević, Doc. dr Veselin Stanišić. Doc. dr Zoran Terzić and associates.			
Methodology	Lectures and exercises. Preparation for exercises. Work in small groups and consultations. Final exam			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Introduction to Surgery and History of Surgery. Surgical Prophylaxis. Infections in Surgery.			
I week exercises	Patient history and physical examination.			
II week lectures	Surgical wound. Bleeding and Hemostasis.			
II week exercises	Basic and advanced methods of temporary and definitive hemostasis.			
III week lectures	Surgery of tumors. Anesthesia. Water and electrolyte balance.			
III week exercises	Principles of asepsis and antisepsis. Practical application of asepsis and antisepsis measures and prevention of intrahospital infections. Surgical hand washing.			
IV week lectures	Cardiopulmonary resuscitation. Shock and blood transfusion. Preoperative preparation and postoperative treatment			
IV week exercises	Modern principles of CPR (ERC standards). Application of AED and defibrillator in and out of the office			
V week lectures	Surgical diagnostics. Thoracic surgery (injuries, empyema of the pleura, tumors). Esophageal and diaphragmatic surgery.			
V week exercises	Principles of thoracentesis and thoracic drainage. Pericardiocentesis.			
VI week lectures	Cardiac and major vascular surgery. Pulmonary embolism. Pericardium, heart tumors, heart defects. Pacemakers. Peripheral vascular surgery. Surgically correctable hypertension.			
VI week exercises	Primary wound treatment. Management of primarily infected wounds. Medical dressing materials.			
VII week lectures	Hernia surgery. Acute abdomen. Endocrine surgery.			
VII week exercises	Practical application of diagnostics in emergency and elective surgical treatment of patients.			
VIII week lectures	Manifestations of digestive diseases. Stomach and duodenum. Small intestine. Appendix. Ileus. Colon surgery.			
VIII week exercises	Incidents in the office of the selected physician, surgical office, and surgical room - injuries during work.			
IX week lectures	Rectum and anus. Liver surgery. Gallbladder and bile ducts.			
IX week exercises	Practical skills: digital-rectal examination, direct rectoscopy. Incisions in the perianal and perineal region.			
X week lectures	Pancreas and spleen surgery. Oncological surgery (general principles, skin tumors, melanoma). Plastic			

	and reconstructive surgery (general principles of plastic and reconstructive surgery).
X week exercises	Basic principles of triage. Most commonly used triage scales. Management of polytraumatized patients - basic principles. Trauma system.
XI week lectures	Burns and tissue transplantation.
XI week exercises	Organization of care for the injured in emergencies. Triage in emergencies.
XII week lectures	Prevention of traffic injuries. Prevention of fall injuries. (Injury Prevention Module)
XII week exercises	Primary, primary delayed, and secondary suturing in surgery - practical application and skills
XIII week lectures	Prevention of accidental injuries. Prevention of violent injuries. (Injury Prevention Module)
XIII week exercises	Prevention of accidental injuries. Prevention of violent injuries. (Injury Prevention Module)
XIV week lectures	
XIV week exercises	
XV week lectures	
XV week exercises	
XVI week lectures	Trauma of the central nervous system. Neurooncology - brain tumors. Cerebrovascular diseases.
XVI week exercises	Specifics of neurosurgical history taking and physical examination. Approach to neurosurgical patients.
XVII week lectures	Diseases of the spine, spinal cord tumors. Congenital CNS anomalies. CNS infections, pain surgery, functional neurosurgery.
XVII week exercises	Head trauma. Surgical principles of neurotrauma care.
XVIII week lectures	Injuries and diseases of peripheral nerves. Semiology of urological diseases. Diagnostic methods in urology.
XVIII week exercises	Scoring systems in neurosurgery and examination of patients with peripheral nerve injury.
XIX week lectures	Tuberculosis of the genitourinary tract. Urinary system calculi. Tumors of renal parenchyma and tumors of the pelvis and ureter. Bladder tumors. Benign prostatic hyperplasia. Prostate cancer.
XIX week exercises	Specifics of urological history taking and physical examination.
XX week lectures	Diseases of the genital organs. Andrology. Inflammatory processes of the urinary tract. Neurogenic lower urinary tract dysfunction. Kidney, bladder, and urethral injuries. Kidney transplantation.
XX week exercises	Diagnosis in urology. Rectal examination of the prostate.
XXI week lectures	Introduction to orthopedics. Diagnostic methods in orthopedics. Spinal diseases. Bone-joint infection.
XXI week exercises	Orthopedic patient examination. Diagnostic methods in orthopedics.
XXII week lectures	Cerebral palsy. Imperfect osteogenesis. Achondroplasia. Osteoporosis. Bone tumors. Hip diseases.
XXII week exercises	Immobilization and immobilization aids.
XXIII week lectures	Knee diseases. Foot diseases. Introductory lecture (traumatology). Terminology. Treatment principles. Upper extremity injuries.
XXIII week exercises	Repositioning of individual joints.
XXIV week lectures	Hand and tendon injuries. Spinal cord injuries. Pelvic and hip injuries.
XXIV week exercises	Principles of traumatic hand surgery. Incisions on the hand.
XXV week lectures	Lower extremity injuries. New methods of modern orthopedic treatment. Modern forms of treatment of certain locomotor system injuries.
XXV week exercises	Trauma scoring systems.
XXVI week lectures	Introduction to pediatric surgery. Most common surgical diseases in pediatric practice. Congenital GIT anomalies
XXVI week exercises	History taking and physical examination of children.
XXVII week lectures	Peritonitis. Gastrointestinal bleeding. Jaundice in childhood. Surgical causes of respiratory distress. Congenital GIT anomalies.
XXVII week exercises	Acute conditions in pediatric surgery - practical examination skills.
XXVIII week lectures	Acute abdomen in childhood. Trauma in childhood. Pediatric orthopedics.
XXVIII week exercises	Polytrauma in childhood - principles of care.
XXIX week lectures	Pediatric urology. Surgical treatment of benign and malignant tumors in childhood. Infections in

	surgery.
XXIX week exercises	Pediatric urology. Surgical treatment of benign and malignant tumors in childhood. Infections in surgery.
XXX week lectures	
XXX week exercises	
Student workload	During the I semester, the teaching and final exam amount to (17.33 hours) x 16 = 277.28 hours. Necessary preparations before the start of the semester (administration, enrollment, certification) require (17.33 hours) x 2 = 34.66 hours. The total subject load is 13 x 30 = 390 hours. The load structure includes 277.28 hours (teaching and final exam) + 34.66 hours (preparation) + 78 hours (additional work). During the II semester, the teaching and final exam amount to (14.66 hours) x 16 = 234.56 hours. Necessary preparations before the start of the semester require (14.66 hours) x 2 = 29.32 hours. The total subject load is 11 x 30 = 330 hours. The load structure includes 234.56 hours (teaching and final exam) + 29.32 hours (preparation) + 66 hours (additional work).

Per week	**Per semester**
24 credits x 40/30=32 hours and 0 minuts 5 sat(a) theoretical classes 0 sat(a) practical classes 7 excercises **19 hour(s) i 0 minuts** of independent work, including consultations	Classes and final exam: **32 hour(s) i 0 minuts x 16 =512 hour(s) i 0 minuts** Necessary preparation before the beginning of the semester (administration, registration, certification): **32 hour(s) i 0 minuts x 2 =64 hour(s) i 0 minuts** Total workload for the subject: **24 x 30=720 hour(s)** Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) **144 hour(s) i 0 minuts** Workload structure: **512 hour(s) i 0 minuts (cources), 64 hour(s) i 0 minuts (preparation), 144 hour(s) i 0 minuts (additional work)**

Student obligations

Consultations

Literature

Maksimović Ž, Hirurgija: udžbenik za studente. Medicinski fakultet Beograd, 2019.

Examination methods