

<i>Name of the course</i>	Surgery			Code	
<i>Type of study program Cycle</i>	Integrated University studies, medicine			Year of study	V
<i>Credits (ECTS) :</i>	15	<i>Semester</i>	IX	Number of hours per semester (l+e+s)	285 (70 + 150 + 65)
<i>Status of the course:</i>	mandatory	<i>Preconditions:</i>	Passed all exams of the 4 th year	<i>Comparative conditions:</i>	
<i>Access to course:</i>	5 th year medical students			<i>Hours of instructions:</i>	
<i>Course teacher:</i>	Professor Ante Kvesić, MD, PhD				
<i>Consultations:</i>	As agreed				
<i>E-mail address and phone number:</i>					
<i>Associate teachers</i>	Assistant professor Zdrinko Brekalo, MD, PhD Assistant professor Gordan Galić, MD, PhD Assistant professor Nikica Šutalo, MD, PhD Assistant professor Davor Kozomara, MD, PhD Zoran Trninić, MD, PhD Ivan Vukoja, MD Tihomir Vukšić, MD Vjekoslav Čuljak, MD, MSc Josip Mišković, MD, PhD Ludvig Letica, MD, MSc Goran Lakičević, MD, PhD Goran Đuzel, MD, MSc Ante Bošnjak, MD, MSc Violeta Šetka, MD, MSc Martina Šoljić, MD Assistant professor Vlatka Martinović, MD, PhD Urology Professor Ivan Gilja, MD, PhD Professor Boris Ružić, MD, PhD Davor Tomić, MD, PhD Mario Kordić, MD, MSc Dino Zalihić, MD, MSc Manuel Tipurić, MD, MSc Vladimir Bekavac, MD, MSc Julijan Baranik, MD, MSc Safet Omerović, MD Transfusiology Jadranka Knežević, MD				

	Ivana Tole, MD, MSc
<i>Consultations:</i>	An hour before and after the lectures
<i>E-mail address and phone number:</i>	+387 36 336272
<i>The aims of the course:</i>	<ol style="list-style-type: none"> 1. To complete successfully a problem-oriented history and physical examination specific to the patient's complaints. 2. To complete successfully a preoperative full history and physical exam and to accurately order and interpret laboratory evaluations/diagnostic studies essential to determining the patient diagnosis. 3. To formulate a reasoned differential diagnosis for a patient problem. 4. To synthesize an appropriate treatment plan, based on the patient's history, physical examination and laboratory results and diagnostic findings, with emphasis on problems commonly seen in general surgery and urology. 5. To synthesize and apply medical knowledge and treatment in evidence based manner in the care of patients and to participate actively in patient care and management under mentor supervision. 6. To educate and counsel patients with common acute and chronic diseases across that are commonly seen in a general surgery and urology setting. 7. To participate in attending to the emotional as well as physical health needs of the patient and family, with consideration of individual socio-cultural and psychosocial factors. 8. To learn how to become an effective member of a professional health care team and participate in coordinated team-based care. 9. To participate in positive, respectful communications and interactions with all patients and their families, including effectively eliciting patient complaint, utilizing good listening skills, and practicing confidentiality. 10. The increase understanding of the challenges and rewards of a career in General Surgery and Urology
<i>Learning outcomes (general and specific competences):</i>	<u>General outcomes:</u> Applying the theoretical knowledge of clinical findings, indications, contraindications, surgical approaches, types of surgical procedures and possible intra- and post-operative complications in the treatment

of the most common surgical illnesses and wounds.

Specific outcomes – Knowledge

Understanding the mechanism of tissue damage: describe the process of tissue healing and inflammatory factors impact on the entire body

Understanding the basic surgical techniques and principles of asepsis and antisepsis in the treatment of surgical patients

Remembering the most common adult general surgical conditions and immediate life-threatening conditions, including trauma conditions with surgical presentation, under the supervision of a licensed general surgeon

Evaluation of differential diagnosis in undifferentiated general surgical patient

Synthesis of assessment and diagnostic plan based on differential diagnoses

Evaluation of appropriate diagnostic tests in surgical patients

Analyzing patient's history, physical examination and laboratory results and diagnostic findings in surgical patients

Remembering the pre and post- operative treatment of patients eligible for elective surgery in consultation with a specialist in a particular branch of surgery and other medical specialties.

Understanding the surgical treatment of polytraumatized patients, surgical management of patients with burns. Remembering the state of the terminal organ failure and the basic principles of transplantation surgery

Understanding the particularity of diagnostic and therapeutic procedures in the care of pediatric surgical patient

Remembering the etiology and clinical signs for: tumors of adrenal gland, kidney, ureter, bladder, prostate, urethra, penis and testis, urolithiasis, benign prostatic hyperplasia, obstructive uropathy, inflammatory disease, neurogenic bladder, erectile dysfunction, male infertility, the most child urological pathology, urological trauma, vascular disease in urology and end-stage renal disease.

Remembering the most important diagnostic methods, general diagnostic results and the treatment choices in common urological disease.

	<p><u>Specific outcomes – Skills</u></p> <p>Applying an accurate problem-focused history and physical examination on children, adolescents, adults, and the elderly in the outpatient, emergency, and inpatient settings in surgery</p> <p>Applying a management of a surgical patient in the pre-operative, intra-operative, post-operative and ambulatory surgical settings</p> <p>Remembering diseases and conditions that require elective surgery and conditions that require immediate surgical treatment and apply appropriate procedures under the supervision of licensed surgeon.</p> <p>Understanding the indications and applications for appropriate surgical procedures</p> <p>Analyzing possible early postoperative complications in the treatment of the most common surgical diseases and injuries (infections, surgical wound dehiscence, and respiratory and urinary complications)</p> <p>Evaluate appropriate number of different diagnostic and therapeutic procedures made under supervision in accordance with the Booklet of Clinical Skills</p>			
Course content (Syllabus):	General and Digestive Surgery, Thoracic Surgery, Urology, Cardiovascular Surgery, Neurosurgery, Plastic and Reconstructive Surgery, Transfusion, Pediatric Surgery.			
Format of instruction (mark in bold)	Lectures	Exercises	Seminars	Independent assignments
	Consultations	Work with mentor	Field work	Other
	<p>Remarks:</p> <p>Students are required to attend guards in the emergency unit under the supervision of licensed surgeon.</p>			
Student responsibilities	In accordance to Rules of studying and Deontological code for Mostar University Medical School students			
Screening student work (mark in bold)	Class attendance	Class participations	Seminar essay	Practical training
	Oral exam	Written exam	Continuous assessment	Essay

Detailed evaluation within a <i>European system of points</i>			
STUDENTS RESPONSIBILITIES	HOURS	PROPORTIONS OF ECTS CREDITS	PROPORTION S OF MARK
Class attendance and participations	60	2	0%
Seminar essay	90	3	25%
Written exam	90	3	25%
Oral exam	210	7	50%
<p>Students have exams according to the specified examination periods.</p> <p>Each student is mandatory to pass:</p> <ol style="list-style-type: none"> 1. Written test 2. Practical skills exam – evaluated by licensed surgeon and Medical School teacher 3. Oral exam – evaluated by Mostar University Medical School professors <p>According to the Regulations on studying final grade is calculated as the sum of the test, practical and oral examination. Grading of the test is done in the following way:</p> <p>According to the regulations of the study, final grade on the test is obtained:</p> <p>A = 91-100% 5 B = 79 to 90% 4 C = 67 to 78% 3 D = 55 to 66% 2 F = 0 to 54% 1</p>			
Required literature:	<ol style="list-style-type: none"> 1. Ante Kvesić i suradnici: KIRURGIJA. Medicinska naklada Zagreb 2016 2. Bradić i suradnici : KIRURGIJA 3. Ivan Prpić: Kirurgija za medicinare . Školska knjiga Zagreb,1995 4. Mladen Štulhofer: Kirurgija probavnog sustava. Medicinska naklada Zagreb 1999 5. Ante Kvesić, Šime Vučkov, Izabrana poglavlja iz Dječje kirurgije 6. J. Paladino: << Kompendij neurokirurgije>>, Zagreb, Naklada Ljevak,2004 (neurokirurgija) 7. Šoša, Sutlić, Stanec, Tonković: „Kirurgija“, Zagreb,Naklada Ljevak,2007 (plastična kirurgija) 		

	8. Zabilješke s predavanja i seminara
Optional literature:	<ol style="list-style-type: none"> 1. Zinner MJ, Asley SW. Abdominal operations. Maingot's, New York, Chicago, San Francisco et al., 2012 2. O'Neill JA, Rowe MI, Grosfeld JL, Fonkalsrud EW, Coran AG. St Louis, Baltimore, Boston, Mosby Co, 1999 3. Rockwood Ch, Green D. Fractures in children. Philadelphia, London, Mexico City, New York, Lipping Co, 1984 4. Rockwood CH. Fractures in adults. Philadelphia, London, Mexico City, New York, Lipping Co, 1984
Additional information about the course	<p>Methods of monitoring the quality of teaching:</p> <ul style="list-style-type: none"> - Student survey - Quality control analysis - Analysis of exam results - External evaluation (teams for quality control)

Annexes: calendar classes

The number of teaching units	TOPICS AND LITERATURE
I.	Title: Work organization in the OR. Desinfection and antisepsis. Wound management
	Short description: Asepsis, antisepsis, desinfection, Surgical instruments and technical OR equipment: Surgical technique principles and sutures.
	Literature: mandatory and optional
II.	Title: Infection in Surgery. Polytrauma. Preoperative preparation.
	Short description: Nosocomial infections in Surgery, causes, prophylaxis
	Literature: mandatory and optional
III.	Title: Endocrine glands Surgery. Minimal invasive Surgery.
	Short description: Gallbladder and Billiary tract diseases. Retroperitoneal tumors. Diseases of the Pancreas. Emergency laparoscopic procedures.
	Literature: mandatory and optional
IV.	Title: Portal hypertension. Diseases of the Spleen. Acute abdomen
	Short description: Abdominal injuries. Hernias of the abdominal wall.
	Literature: mandatory and optional
V.	Title: Surgical diseases of Stomach and Duodenum Diseases of the small intestine, colon and rectum. Surgery of anorectum
	Short description: Management of the Intestinal obstruction.
	Literature: mandatory and optional

VI.	Title: Transplantation Surgery. Diseases of the Liver.
	Short description: Surgical management of intraabdominal hemorrhage
	Literature: mandatory and optional
VII.	Title: Basic principles of Thoracic Surgery. Diseases of the chest wall, trachea and lungs.
	Short description: Diseases of the oesophagus and mediastinum. Diseases of Pleura and diaphragm.
	Literature: mandatory and optional
VIII.	Title: Breast Surgery. Thoracic trauma.
	Literature: mandatory and optional
IX.	Title: Urinary neurophysiology. Neurogenic bladder
	Incontinence.
	Literature: mandatory and optional
X.	Title: Urogenital tumors, trauma and infections.
	Literature: mandatory and optional
XI.	Title: BHP. Urethral strictures. Bladder tumors. Reconstruction un Urology.
	Short description: Obstructive urophaty. Urolithiasis. Erectile dysfunction, Prostate cancer.
	Literature: mandatory and optional
XI.	Title: Cardiosurgical emergency. Heart transplantation, Aortal aneurysm. Surgery of Carotide artery.
	Literature: mandatory and optional
XII.	Title: Peripheral obliterative atherosclerosis. Varicose veins, Pulmonary embolia.
	Short description: Acute and chronical ischemia of the limb and intestines.
	Literature: mandatory and optional
XIII.	Title: Neurotraumatology. Pediatric neurosurgery. Neurooncology.
	Literature: mandatory and optional
XIV.	Title: Surgery of peripheral nerves. Spinal neurosurgery. Infections. Vascular neurosurgery.
	Literature: mandatory and optional
XV.	Title: History and development of Plastic and reconstructive surgery. Chronical wound. Diabetic foot, Basic principles of plastic surgery. Skin grafts, Microsurgery.
	Literature: mandatory and optional
XVI.	Title: Surgery of the wrist. Peripheral nerves damage. Damage of the tendons. Wrist infections. Tumors of the wrist.
	Short description: Dupuytren's contracture. Burns and congelation. Skin grafts in burnt. Congenital anomalies of the wrist and sternum. Transsexualism
	Literature: mandatory and optional
XVII.	Title: Skin tumors. Diagnosis and treatment of melanoma. Aesthetic surgery of head and neck and body. Diseases of the breast. Ginecomasty. Breast reconstruction.
	Short description: Radical surgery for malignant tumors and reconstruction possibilities. New tendencies in plastic and reconstructive surgery.

	Literature: mandatory and optional
XVIII.	Title: Introduction in war surgery. War and massive traumatism – priorities and triage.
	Short description: Specialties in war and massive injuries. Mechanisms of injuries and treatment. Experiences from surgical war unit.
	Literature: mandatory and optional
XIX.	Title: History of pediatric surgery. Anomalies of head and neck. Development anomalies.
	Short description: Biliary atresia. Choledochal cyst. Chaliasia and achalasia. Congenital diaphragmatic hernia. Hypertrophic pyloric stenosis. Intestinal atresia.
	Literature: mandatory and optional
XX.	Title: Oesophageal atresia. Development anomalies of abdominal wall.
	Short description: Meconium ileus. Congenital megacolon. Rectal and anal atresia. Anomalies of the kidney.
	Literature: mandatory and optional
XXI.	Title: Hydronephrosis. VUR, Hypospadia, Cryptorchidism, Trauma in children. Burns in children.