Faculty of Medicine, University of Rijeka

Course: Surgery
Mentor: Prof.dr.sc. Igor Medved, MD
Department: Department of Surgery
Study: Integrated undergraduate and graduate university study of Medicine
Year of study: 5.
Academic year: 2021/2022

IMPLEMENTATION CURRICULUM

Information about the course (short description of the course, general instructions, where and in what form the classes are organized, necessary equipment, instructions on attending and preparing for classes, student obligations, etc.):

The course Surgery is a compulsory course in the fifth year of the Integrated Undergraduate and Graduate University Study of Medicine and consists of 40 hours of lectures, 50 hours of seminars and 118 hours of exercises, a total of 208 hours (11 ECTS). The course is conducted in the premises of the Clinic for Surgery of the Clinical Hospital Center Rijeka, at all three locations: Rijeka, Sušak and Kantrida. Classes take place over five shifts of 22 days each.

The aim of the course is to acquire basic knowledge and skills in the field of surgery required for general practitioners.
The aim is to acquaint students with diseases, injuries and conditions that require surgical treatment, the basics of surgical treatment and the conditions necessary for safe surgical operation.
Particular emphasis is on training students to perform skills in the field of clinical examination of patients and basic surgical diagnostics, providing conditions for asepsis and conducting antisepsis, surgical treatment of wounds, setting immobilization and recognizing and treating emergency surgical conditions and surgical treatment of life-threatening patients.

The content of the course is as follows:
Introduction and history of surgery, perspectives in surgery, injuries and wounds, principles of wound healing, asepsis and antisepsis, sterilization, surgical instruments and materials in surgery, surgical infections, preoperative preparation and postoperative monitoring of patients, minimally invasive techniques in surgery and treatment, basics fractures and injuries, tumor surgery, basics of transplant surgery, gastrointestinal surgery, vascular surgery, lung and chest surgery, pediatric surgery, basics of war surgery, and surgical treatment of patients in shock.

Teaching:
Classes are held in the form of lectures, seminars and exercises. The estimated duration of classes is five shifts of 22 days throughout the year. During the exercises, the teacher shows and supervises the active participation of students in performing the exercises. Teachers discuss with students the specifics of performing each exercise. After the lecture and at the end of the class, there will be written tests and an oral final exam. By completing all teaching activities and taking the mandatory final exam, the student acquires 11 ECTS credits.

List of required examination literature:

Brunicardi F, Andersen D, Billiar T et al. Schwartz's Principles of Surgery. 10th edition. McGraw Hill, New York, 2015.
Sabiston Textbook of Surgery: the Biological Basis of Modern Surgical Practice Hardcover – 16 February 2021.
Gray's Surgical Anatomy 1st Edition

INP Surgery - 2021 - reorganized

5 days of lectures / 8 hours a day

1. day	**Topic**	**Lecturers**	**Duration**
L1	Introductory lecture	Prof.dr.sc. M. Kovačević	1h
L2	Wound types, wound healing and healing; Wound infections	Prof.dr.sc. F. Lovasić	1h
L3	Asepsis. Antiseptic. Surgical infections	Doc.dr.sc. D. Grebić	1h
L4	Surgical instruments, suture material; Synthetic material in surgery	Prof.dr.sc. H. Grbas	1h
L5	Principles of transfer. preparation and procedure. monitoring kir. patients	Prof.dr.sc.M. Zelić	1h
L6	Principles and techniques in endoscopic surgery	Prof.dr.sc. M. Zelić	1h
L7	Tumor surgery, classification and treatment options	Doc.dr.sc.D. Grebić	1h
L8	Skin tumors. Pressure ulcer	Prof.dr.sc. A. Pirjavec	1h
2. day			
L9	Introduction to traumatology	Doc.dr.sc. M. Bekić	1 h
L10	Clavicle fractures and humerus fractures, Forearm and hand bone fractures	Doc.dr.sc.M. Bekić	1h
L11	Fractures of the lower extremities	Doc.dr.sc. M.Bekić,	1h
L12	Femoral fractures and proximal tibial fractures	Doc.dr.sc.M. Bekić,	1h
L13	Pathophysiology of shock, Polytrauma, Fractures of the upper extremity	Prof.dr.sc.I. Medved/ Doc.dr.sc.D. Grebić	2h
L14	Burns and frostbite, Soft tissue injuries with special review of hand injuries	Prof.dr.sc.A. Pirjavec	2h
3. day			
L19	Fundamentals of cardiac surgery, Ischemic heart disease	Prof.dr.sc. I. Medved	1 h
L20	Valvular heart disease. Ascending and aortic arch surgery	Prof.dr.sc. I. Medved	2 h
L21	Mechanical circulation support	Prof. dr. sc. I. Medved	1 h
L29	War surgery, Mass catastrophes - modern approaches	Prof.dr.sc. I. Medved	2 h

L18	Lung and chest surgery	Prof. dr. sc. I Medved	2 h
4. Day			
L15	Acute limb ischemia, Peripheral arterial disease, Surgical endovascular treatment of supraaortic branches and upper extremities	Prof.dr.sc. M. Kovačević	2h
L16	Surgical endovascular procedures in the treatment of thoracic and thoracoabdominal aorta, Abdominal aortic aneurysm, Visceral and peripheral artery aneurysms	Prof.dr.sc. M. Kovačević	2 h
L17	Venous insufficiency, Phlebology of inflammation and venous thrombosis, Surgical and endovascular procedures in the treatment of venous insufficiency	Prof.dr.sc. M. Kovačević	2 h
L22	Surgery of the esophagus, stomach and duodenum	Prof.dr.sc. M. Zelić	1 h
L23	Surgery of the liver, pancreas and speen	Prof. dr. sc. M. Zelić	1 h
5. day			
L24	Surgery of the colon and anorectal diseases	Prof.dr.sc. M. Zelić	2h
L25	Small bowel surgery. Intestinal stoma	prof.dr.sc. H. Grbas	1h
L26	Surgery for inflammatory bowel disease	Prof.dr.sc. H. Grbas	1h
L27	Gastrointestinal bleeding	Prof.dr.sc.H. Grbas	1h
L28	Transplantation in modern surgery	Prof.dr.sc. H. Grbas	1h
L30	Pediatric surgery	Prof.dr.sc. H.Nikolić	2h

Workshops for students: TOTAL = 28

LOKALITET SUŠAK

DEPARTMENT SITE:
1. Department of Vascular Surgery
2. Department of Traumatology
3. Department of Cardiothoracic Surgery
4. Department of Thoracic Surgery

OP. BLOCK:
1. B + C room - Traumatology
2. D sala - Vascular kir.
3. E sala - Cardiac kir.
4. Op.sala - Polyclinic Sušak

1. OUTPATIENT WORKSHOPS

2. 1. Traumatology clinic I
3. 2. Traumatology clinic II
4. 3. Outpatient clinic for vascular surgery
5. 4. Cardiac surgery clinic
6. 5. Thoracic surgery clinic
7. 6. General surgical clinic Sušak

LOCALITY OF RIJEKA

DEPARTMENT SITE
1. Department of Digestive Surgery - D1, D2, JINJ
2. Department of General Surgery
3. Department of Plastic and Reconstructive Surgery

OP.BLOCK
1. A Green Hall
2. Blue hall
3. Laparoscopic hall
4. Small procedures at the Rijeka Polyclinic

OUTPATIENT WORKSHOPS:
1. Digestive Surgery Clinic
2. Plastic and reconstructive Surgery
3. Breast clinic
4. General Surgical Clinic Rijeka

LOCALITY OF KANTRIDA

1. Pediatric Surgery Clinic
2. Kantrida operating room - children's surgery.

LECTURES – TOPICS

08.11.2021.

L1. Introductory lecture, Current situation and perspectives in surgery
Lecturer: Prof.dr.sc. I. Medved
Duration: 1 h
Learning outcomes:
Get acquainted with the historical facts in the development of surgery and the current state and directions of development of modern surgery. Encourage students' interest and motivate them to actively participate in teaching surgery

L2. Wound types, wound infection, principles of wound healing and treatment
Lecturer: Prof.dr.sc. F Lovasić
Duration: 1 h
Learning outcomes:
Explain the mechanism of injury and the type of tissue damage.
Acquire knowledge about the types of wounds with regard to the mechanism of occurrence and their appearance.
Acquire knowledge about the process of tissue healing and explain the basic principles of surgical wound treatment.

L3. Asepsis and antisepsis, Surgical infections
Lecturer: doc.dr.sc. D. Grebić
Duration: 1 h
Learning outcomes:
Acquire knowledge of aseptic working conditions. Know antisepsis procedures and basic methods of sterilization of materials used in surgery.
Acquire knowledge about antimicrobial therapy and know the basic rules in perioperative antibiotic prophylaxis. Acquire knowledge about the mechanism of occurrence and types of surgical infections. Be able to recognize the types of surgical infections and know the surgical principles of treatment of infections.

L4. Tumor surgery, classification and treatment options
Lecturer: Doc.dr.sc.D. Grebic
Duration: 1 h
Learning outcomes:
Get acquainted with the basic principles of oncological surgery and knowledge about the pathophysiology of tumors. Know the diagnostic tests in cancer patients and know the principles of tumor classification according to TMN nomenclature. Know the algorithms for clinical processing and multidisciplinary approach to the cancer patient. Know the preventive measures for the most common types of tumors. Get acquainted with new technologies used in oncological surgery.

L5. Principles of preoperative preparation and postoperative monitoring of a surgical patient
Lecturer: prof.dr.sc. M. Zelić
Duration: 1 h
To get acquainted with the importance of preoperative preparation and to know the algorithm of procedures for preoperative preparation and the difference in the preparation of emergency and elective patients. Know the changes in the metabolism of the surgical patient and know the needs for adequate replacement of fluids, electrolytes

and energy needs in operated patients. Get acquainted with the techniques of monitoring vital functions and procedures in postoperative monitoring of patients. Know the measurement of hourly diuresis, monitoring drainage from the wound, dressing the wound and the technique of removing sutures.
L6. Principles and techniques in endoscopic surgery
Lecturer: prof. dr. sc. M. Zelić
Duration: 1 h
Learning outcomes:
Know the principle of endoscopy and the advantages of minimally invasive surgery. Get acquainted with the types of endoscopic surgical procedures and special features in laparoscopy, arthroscopy and thoracoscopy. Know the indications for endoscopic surgery.

L7. Skin tumors, pressure ulcers
Lecturer: Prof.dr.sc. A. Pirjavec
Duration: 1 h
Learning outcomes:
Get acquainted with the types of skin tumors and know the principles of onco-surgical treatment of malignant skin tumors. Learn the causes of pressure ulcers, know the measures for the prevention of pressure ulcers and get acquainted with the surgical principles of treatment and methods of reconstruction of pressure ulcers.

L8. Surgical instruments and suture material, Use of synthetic material in surgery
Lecturer: Prof.dr.sc. H. Grbas
Duration: 1 h
Learning outcomes:
Get acquainted with basic surgical instruments and suture materials. Know how to choose an adequate sewing material with regard to its properties and purpose.
Get acquainted with different types of synthetic materials used as substitutes for tissue or organ parts. Know the limitations, shortcomings and chronic postoperative treatment and supervision of persons with implanted synthetic material.

09.11.2021.

L9. Introduction to traumatology
Lecturer: Nasl. doc.dr.sc. Marijo Bekić
Duration: 1 h
Learning outcomes:
Acquire knowledge about the mechanism of formation and division of fractures. Know the clinical picture and diagnosis of fractures. Acquire knowledge of the principles of conservative and surgical treatment of fractures and modern techniques of osteosynthesis.
To acquire knowledge about the mechanism of joint injuries and to recognize the clinical picture of sprains and dislocations. Know the diagnostic procedures and basic techniques of dislocation repositioning

L10. Clavicle fractures and humerus fractures
Lecturer: doc.dr.sc. Marijo Bekić
Duration: 1 h
Learning outcomes:
Acquire knowledge about the mechanism of formation and division of humerus and clavicle fractures. Know the clinical picture and diagnosis of humerus fractures. Acquire

knowledge of the principles of conservative and surgical treatment of fractures and modern techniques of osteosynthesis of the clavicle and humerus.

L11. Fractures of the bones of the forearm and hand
Lecturer: doc.dr.sc. Marijo Bekić
Duration: 1 h
Learning outcomes:
Know the clinical picture and diagnosis of forearm and hand bone fractures. To acquire knowledge about the principles of conservative and surgical treatment of fractures and modern techniques of osteosynthesis of the bones of the forearm and hand

L12. Femoral fractures and proximal tibial fractures
Lecturer: doc.dr.sc. Marijo Bekić
Duration: 1 h
Learning outcomes:
Know the clinical picture and diagnosis of fractures of the femur and tibia. Acquire knowledge of the principles of conservative and surgical treatment of fractures and modern techniques of osteosynthesis of the femur and tibia.

L13. Pathophysiology of shock, Polytrauma
Lecturer: Prof.dr.sc. I. Medved/Doc.dr.sc.D. Grebic/Prof.dr.sc.A.Pirjavec
Duration: 2 h
Learning outcomes:
Acquire knowledge about the etiology, pathophysiology and treatment of shock.
To acquire knowledge about polytrauma, to know the clinical picture and diagnostics and to acquire knowledge about the principles of conservative and surgical treatment of polytraumatized patients.

L14. Burns and frostbite, Soft tissue injuries with special review of hand injuries.
Lecturer: Prof.dr.sc. A. Pirjavec
Duration: 2 h
Learning outcomes:
Get acquainted with the mechanism of thermal injuries, learn the division of burns and identify 4 types of burns. Know the principles of emergency prehospital treatment of burns and frostbite, with special emphasis on the importance of inhalation injuries and early fluid and electrolyte replacement. Get acquainted with surgical methods of treatment and methods of reconstruction of skin defects.
Know the anatomical and functional features of the hand as an organ. Get acquainted with the types of hand injuries and methods of surgical treatment and reconstruction of tissue defects on the hand.

10.11.2021.
L19. Fundamentals of cardiac surgery, Ischemic heart disease
Lecturer: Prof.dr.sc. I. Medved
Duration: 1 h
Learning outcomes:
Know the clinical picture of surgery and know the diagnostic methods in patients with ischemic heart disease. Know the emergencies associated with diseases of these organs and emergency procedures in treatment. Get acquainted with surgical methods of treatment and reconstruction technique in coronary heart disease.

L20. Valvular heart disease, Ascending and arch aortic surgery

Lecturer: Prof.dr.sc.I. Medved
Duration: 2 h
Learning outcomes:
Know the clinical picture and know the diagnostic methods of patients with valvular heart disease and ascending aorta and aortic arch. Know the emergencies associated with diseases of these organs and emergency procedures in treatment. Get acquainted with surgical methods of treatment and the technique of reconstruction of the aorta and heart valves.

L21. Mechanical circulation support
Lecturer: Prof.dr.sc.I.Medved
Duration: 1 h
Know the clinical picture of cardiogenic shock, indications and basic approaches in the treatment of patients with heart failure and the use of mechanical circulatory support.

L29. War surgery, Mass disasters - contemporary approaches
Lecturer: prof. dr. sc. I. Medved
Duration: 2 h
Learning outcomes
Get acquainted with the history of war surgery and its development. Know the characteristics of war wounds and special features in surgical treatment of war wounds. Get to know the peculiarities of "crush" and "blast" injuries. Know the basics of wounded triage and the organization of the wounded care system. Know the specifics and method of care for craniocerebral, thoracic and abdominal injuries. Get acquainted with the principles of organization of the health service in cases of mass disasters in peacetime

L18. Lung and chest surgery
Lecturer: Prof.dr.sc.I. Medved
Duration: 2 h
Learning outcomes:
Know the clinical picture of surgical diseases of the chest and know the diagnostic methods. Know the emergencies associated with diseases of these organs and emergency procedures in treatment. Get acquainted with surgical methods of treatment and techniques of lung and thorax reconstruction.

11.11.2021.
L15. Acute limb ischemia, Peripheral arterial disease, Surgical endovascular treatment of supraaortic branches and upper extremities
Lecturer: Prof.dr.sc.M. Kovacevic
Duration: 2 h
Learning outcomes:
Know the clinical picture and examination methods of patients with acute and chronic atrial insufficiency. To get acquainted with diagnostic methods and surgical therapeutic procedures in acute and chronic arterial insufficiency and in patients with stenoses and occlusions of supraarotal branches. Know the indications for arterial reconstruction using autologous grafts or artificial materials.
Know the basic indications for surgical treatment of vascular disease. Be able to recognize emergencies in vascular surgery including ruptures and injuries of large blood vessels. Get acquainted with surgical techniques in vascular surgery and methods of minimally invasive endovascular treatment

L16. Surgical endovascular procedures in the treatment of thoracic and thoracoabdominal aorta, Abdominal aortic aneurysm, Visceral and peripheral artery aneurysms
Lecturer: Prof.dr.sc.M. Kovacevic
Duration: 2 h
Learning outcomes:
Know the clinical picture and examination methods of patients with thoracic and thoracoabdominal aortic aneurysms, abdominal aortic aneurysms, visceral and peripheral arteries. To get acquainted with diagnostic methods, endovascular and surgical therapeutic procedures in patients with aneurysms of these arteries.
Know the indications for reconstruction of arterial aneurysms using autologous grafts or artificial materials.

L17. Venous insufficiency, Phlebology of inflammation and venous thrombosis, Surgical and endovascular procedures in the treatment of venous insufficiency
Lecturer: Prof.dr.sc.M. Kovačević,
Duration: 2 h
Learning outcomes:
Know the etiology and pathophysiology of venous insufficiency. Know the methods of prevention and treatment of deep vein thrombosis.
Know the basic indications for surgical and endovenous treatment of venous insufficiency and venous thrombosis.

L22. Surgery of the esophagus, stomach and duodenum
Lecturer: Prof.dr.sc. M. Zelić
Duration: 1 h
Learning outcomes:
Know the clinical picture of surgical diseases of the upper digestive system and know the diagnostic methods. Know the emergencies associated with diseases of these organs and emergency procedures in treatment. Get acquainted with surgical methods of treatment and the technique of reconstruction of the upper part of the digestive system
L23. Surgery of the liver, pancreas and spleen
Lecturer: prof. dr. sc. M. Zelić
Duration: 1 h
Learning outcomes:
Know the clinical picture of pancreatic and spleen liver disease and know diagnostic methods. Know the emergencies associated with diseases of these organs and emergency procedures in treatment. Get acquainted with surgical methods of treatment and technique of resection of the liver and pancreas, surgical procedures on the spleen

12.11.2021.

L24. Surgery of the colon and anorectal diseases
Lecturer: prof. dr. sc. M. Zelić
Duration: 2 h
Learning outcomes
Know the clinical picture of surgical diseases of the colon and end of the intestine and know the diagnostic methods. Know the emergencies associated with colon and terminal bowel disease and emergency procedures in treatment. Get acquainted with surgical methods of treatment and colon reconstruction technique.

L25. Small bowel surgery, Intestinal stoma
Lecturer: Prof.dr.sc. H. Grbas
Duration: 1 h
Learning outcomes:
Know the clinical picture of surgical diseases of the small intestine and know the diagnostic methods. Know the emergencies associated with small bowel diseases and emergency procedures in treatment. Get acquainted with surgical methods of treatment and the technique of small bowel reconstruction
Know the purpose and indications for the placement of intestinal stoma. Get acquainted with different types of stoma. Know the technique of application of pads and bags for stoma, as well as procedures in the care of the area around the stoma. Know the complications associated with stoma.

L26. Surgery of inflammatory diseases of the intestines
Lecturer: Prof.dr.sc. H. Grbas
Duration: 1 h
Learning outcomes
To get acquainted with pathophysiological and morphological changes in inflammatory bowel diseases. Know the clinical picture and know the diagnostic methods. Know the emergencies associated with inflammatory bowel disease and emergency procedures in treatment. Get acquainted with surgical methods of treatment and techniques of bowel reconstruction. Know the therapeutic and dietary procedures in patients with inflammatory bowel disease

L27. Gastrointestinal bleeding
Lecturer: Prof.dr.sc. H. Grbas
Duration: 1 h
Learning outcomes:
Know the clinical picture of bleeding from the gastrointestinal system, know the difference between bleeding from the upper and lower gastrointestinal system and know the urgent diagnostic and therapeutic procedures. Get acquainted with surgical methods in the treatment of gastrointestinal bleeding. Know the procedures in the treatment of hemorrhagic shock.

L28. Transplantation in modern surgery
Lecturer: prof. dr. sc. H. Grbas
Duration: 1 h
Learning outcomes
Know the basics of transplant medicine and indications for organ transplantation. Get acquainted with the surgical technique of explantation and preservation of organs. Know the professional and ethical aspects of tissue and organ donation and the donor processing algorithm.

L30. Pediatric surgery
Lecturer: Prof.dr.sc. H. Nikolić
Duration: 2 h
Learning outcomes:
Get acquainted with the peculiarities of surgery in childhood. Know congenital diseases and emergencies that require surgical treatment in the neonatal period. Familiarize yourself with congenital diseases and conditions that require surgical treatment in childhood. Know the clinical picture, diagnostic methods and get acquainted with the

methods of treatment of the most common surgical diseases in childhood. Get acquainted with the peculiarities in the treatment of fractures in childhood.

Curriculum:
List of lectures (with titles and explanations):

List of seminars with explanation:

Seminars from the course Surgery are conducted at the Clinic of Surgery - Rijeka and Sušak and at Kantrida (pediatric surgery) at individual sites during the shift within the 8-hour stay of students at each site.
Students are required to prepare seminar materials from the required literature. At the seminars, students with the help of seminar leaders will present the material learned, ask questions and discuss vague concepts, draw common conclusions and adopt the basics of surgery needed by the doctor to work after graduation.
The final 5 seminars are scheduled for student presentations on the topics listed in the final table. Each named group is in charge of preparing a presentation on the topic in 10-12 minutes and at the end of each presentation students are required to ask the audience 3 questions with 1 correct answer out of 5 possible.
The seminar leader is obliged to properly direct the discussion and lead the students to correct and correct conclusions.

Seminar	Topic	Number of teaching hours	
S1	Clavicle fractures and humerus fractures	2	
S2	Fractures of the bones of the forearm and hand	2	
S3	Femoral fractures and proximal tibial fractures	2	
S4		2	
S5	Fractures of the diaphysis of the lower leg	2	
S6	Fractures of the ankle and foot	2	
S7	Pelvic and acetabulum fractures	2	
S8	Polytrauma	2	
S 9	Venous insufficiency, deep vein thrombosis	2	
S10	Aneurysmal disease of the aorta and peripheral arteries	2	
S11	Surgical endovascular and hybrid procedures in the treatment of thoracic and thoracoabdominal aorta	2	
S12	Revascularization of supraaortic branches and upper extremities	2	
S13	Heart valve surgery and coronary heart disease	2	

S14	"Off pump" of surgical myocardial revascularization	2	
S15	Aortic dissection	2	
S16	Cardiac arrhythmia and radiofrequency atrial ablation	2	
S17	Thyroid and suprarenal surgery	2	
S18	Breast cancer surgery	2	
S19	Acute abdomen and inflammation of the peritoneum	2	
S20	Acute abdomen and bowel obstruction	2	
S21	Bile and biliary tract surgery	2	
S22	Abdominal wall and hernia surgery	2	
S23	Colorectal cancer	2	
S24	Origin and types of war wounds	2	
S25	War wound treatment	2	

STUDENT PRESENTATION

Ordinal number	Topic	Duration		
1.	Perforated ulcer	15'		
2.	Acute calculous cholecystitis and complications	15'		
3.	Hernias and indications for emergency surgery	15'		
4.	Hypertrophic pyloric stenosis	15'		
5.	Acute abdomen	15'		
6.	Sterilization	15'		
7.	Tetanus - prevention and treatment	15'		
8.	Gas gangrene	15'		
9.	Acute appendicitis	15'		
10.	Ileus	15'		
11.	Colon tumors and acute complications	15'		
12.	Acute surgical conditions in bowel disease	15'		
13.	Surgical treatment of Ca breast	15'		
14.	Surgical treatment of goiter	15'		

15.	Cryptorchidism	15'		
16.	Liver transplantation	15'		
17.	Treatment of burns	15'		
18.	Crush sindrom	15'		
19.	Abdominal aortic rupture	15'		
20.	Thoracic aortic dissection	15'		
21.	Acute artery occlusion	15'		
22.	Deep venous thrombosis	15'		
23.	Massive transfusion protocol	15'		
24.	Extracorporeal circulation and ECMO	15'		
25.	Surgical treatment of the wound	15'		
26.	Principles of war wound healing	15'		
27.	Pneumothorax	15'		
28.	Compartment syndrome	15'		
29.	Treatment of open fractures	15'		
30.	Polytrauma	15'		

Student obligations:

Students are required to attend regularly and actively participate in all forms of teaching.

Exam (method of taking the exam, description of the written / oral / practical part of the exam, method of scoring, grading criteria):

ECTS credit grading system:

Student assessment is carried out according to the current Ordinance on studies at the University of Rijeka, and according to the Ordinance on student assessment at the Medical Faculty in Rijeka (adopted by the Faculty Council of the Medical Faculty in Rijeka). Student work will be evaluated and graded during classes and at the final exam. Out of a total of 100 points, during the classes the student can achieve 70 points, and at the final exam 30 points.

Student assessment is performed using ECTS (A-D) and number system (1-5). Assessment in the ECTS system is performed by absolute distribution, and according to graduate assessment criteria.

The student gains grades by actively participating in classes, performing assigned tasks and taking intermediate exams as follows:

During classes, the following is evaluated (maximum up to 100 points):

a) active participation in seminars (up to 10 points)

d) written test x 2 (up to 30 points for each test, a total of 60 points)

e) final oral exam (up to 30 points)

a) Active participation in exercises and seminars (up to 10 points)

During the seminar, the facilitator evaluates the acquired knowledge and activity of each student and evaluates the points as follows:

	aluation	evalu	
	ufficient		points)
d) Written test (up to 30 The test consists of 100 grade points (range 17-30; grade points is 50% of Points earned on the written points as follows:	Good		questions, and carries 30 the criterion for obtaining correctly solved questions). test are converted into grade
	ery good		
	xcellent		

Final oral exam (total 30 points)

Correct answers	evaluation points
0 – 49	0
50 – 54	17
55 – 59	18
60 – 64	19
65 – 69	20
70 – 73	21
74 – 77	22
78 – 80	23
81 – 83	24
84 - 86	25
87 – 89	26
90 – 92	27
93 - 95	28
96 - 98	29
99 -100	30

Who can take the final exam:
Students who have achieved more than 35 points during course or during the exam where take the final achieve a they can maximum of points.

Who cannot take the final exam:

Students who have achieved less than 35 points during classes do not have the right to take the final exam (enroll in a second year course).

The final exam is an oral exam. Carries 30 grade points (range 15-30).

Success in the final exam is converted into grade points as follows:

evaluation	evaluation points
Insufficient	0-14
Sufficient	15-19
Good	20-23
Very good	24-27
Excellent	28-30

To pass the final exam and take the final grade (including adding up the previously obtained grade points), the student must have a positive grade in the final exam and achieve a minimum of 15 grade points (50%).

Assessment in the ECTS system is performed by absolute distribution, ie on the basis of the final achievement:
A – 90 - 100%
B – 75 - 89,9%
C – 60 - 74,9%
D -- 50 - 59,9%
F (students who achieved less than 30 points during classes or did not pass Final exam

Grades in the ECTS system are translated into a numerical system as follows:

A = excellent (5)
B = very good (4)
C = good (3)
D = sufficient (2)
F = insufficient (1)

Possibility of teaching in a foreign language:
Classes are conducted in English only

Other notes (related to the course) important for students:

All lectures will be held online.

SATNICA IZVOĐENJA NASTAVE (za akademsku 2021/2022. godinu)

Datum	Predavanja Predavaona KBC lok. Rijeka	Vježbe + Seminari	Nastavnik
08.11.2021.	L1 8.00-9.00 L2 9.00-10.00 L3 10.00-11.00 L4 11.00-12.00 L5 12.00-13.00 L6 13.00-14.00 L7 14.00-15.00 L8 15.00-16.00		Prof.dr.sc. I. Medved Prof.dr.sc. F. Lovasić Doc. dr.sc. D. Grebić Doc.dr.sc. D. Grebć Prof.dr.sc. M. Zelić Prof. dr.sc. M.Zelić Prof.dr.sc. A. Pirjavec Prof.dr.sc. H. Grbas
09.11.2021.	L9 8.00-9.00 L10 9.00-10.00 L11 10.00-11.00 L12 11.00-12.00 L13 12.00-13.00 13.00-14.00 L14 14.00-15.00 15.00-16.00		Doc.dr.sc. M. Bekić Doc.dr.sc. M. Bekić Doc.dr.sc. M. Bekić Doc.dr.sc. M. Bekić Prof.I. Medved/ doc.D.Grebić Prof.dr.sc. A. Pirjavec Prof.dr.sc. A. Pirjavec
10.11.2021.	L19 08.00-09,00 L20 09,00-10,00 10,00-11,00 L21 11,00-12,00 L29 12,00-14,00 L18 14,00-15,00 15,00-16,00		Prof.dr.sc. I. Medved Prof.dr.sc. I. Medved Prof.dr.sc. I. Medved Prof.dr.sc. I. Medved Prof.dr.sc. I. Medved Prof.dr.sc.I.Medved Prof.dr.sc. I. Medved
11.11.2021.	L15 8.00-9.00 9.00-10.00 L16 10.00-11.00 11.00-12.00 L17 12,00-13,00 13,00-14,00 L22 14,00-15,00 L23 15,00-16,00		Prof.dr.sc. M. Kovačević Prof.dr.sc. M. Kovačević Prof. dr.sc. M. Kovačević Prof.dr.sc. M.Kovačević/ Prof.dr.sc. M. Kovačević Prof.dr.sc. M. Zelić Prof.dr.sc. M. Zelić
12.11.2021.	L24 08.00-10,00 L25 10,00-11,00 L26 11,00-12,00 L27 12,00-13,00 L28 13,00-14,00 L30 14.00-16.00		Prof.dr.sc. M. Zelić Prof.dr.sc. H. Grbas Prof.dr.sc. H. Grbas Prof.dr.sc. H. Grbas Prof.dr.sc. H. Grbas Prof.dr.sc. H. Nikolić
15.11.- 15.12.2021.	08,00 – 16,00	**Practical classes**	Lokalitet Sušak Lokalitet Rijeka Lokalitet Kantrida

	EXAM DATES (final exam)
1.	15.12.- 23.12.2021
2.	10.01. - 21.01.2022.

Note:

The examination will be introduced in a period agreed between students and teachers.