

## Faculty of Medicine in Rijeka

### Curriculum 2022/2023

For course

### Surgery

|                     |                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------|
| Study program:      | <b>Medical Studies in English (R)</b><br>University integrated undergraduate and graduate study |
| Department:         | <b>Department of Surgery</b>                                                                    |
| Course coordinator: | <b>prof. dr. sc. Medved Igor, dr. med.</b>                                                      |
| Year of study:      | <b>5</b>                                                                                        |
| ECTS:               | <b>11</b>                                                                                       |
| Incentive ECTS:     | <b>0 (0.00%)</b>                                                                                |
| Foreign language:   | <b>Possibility of teaching in a foreign language</b>                                            |

## **Course information:**

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 lifethreatening 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 assigned reading:**

Brunnicardi 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

## **List of optional reading:**

## **Curriculum:**

## **Student obligations:**

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

**Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, 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:

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

Final oral exam (total 30 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             |

| 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                |

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)

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

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.

| 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' |

## **COURSE HOURS 2022/2023**

Surgery

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**List of lectures, seminars and practicals:**

**EXAM DATES (final exam):**

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