

**SYLLABUS**  
**APPLICABLE TO THE EDUCATION CYCLE 2023-2029**

Academic year: **2028/2029**

**1. BASIC INFORMATION ABOUT THE SUBJECT/MODULE**

Subject/Module Name:	<b>Surgery</b>
Subject/Module Code: *	<b>Ch/F</b>
Name of the Unit Conducting the Course:	<b>Faculty of Medicine, University of Rzeszow</b>
Name of the Unit Implementing the Subject:	<b>Department of Surgery, Institute of Medical Sciences</b>
Field of Study:	<b>Medicine</b>
Level of Education:	<b>Uniform Master's Studies</b>
Profile:	<b>General Academic</b>
Form of Studies:	<b>Stationary / non-stationary</b>
Year and Semester of Study:	<b>Year VI, semesters 11, 12</b>
Type of Subject:	<b>Mandatory</b>
Language of instruction	<b>English</b>
Coordinator:	<b>Artur Iwasieczko, MD</b>
Name and surname of the person conducting / persons conducting	<b>Assoc. Prof. Andrzej Komorowski, MD, PhD Artur Iwasieczko, MD</b>

*\* optionally, in accordance with the arrangements in the Unit*

**1.1. Forms of Teaching, Hours, and ECTS Points**

Semester (no.)	Lectures	Classes	Conversations	Laboratory	Seminars	Practical	Self-Learning	ECTS Points
11	-	50	-	-	10	-	-	4
12	-	50	-	-	10	-	-	4

### 1.2. Mode of Teaching

- ☒ Traditional classes  
☐ Classes conducted using distance learning methods and techniques

### 1.3. Form of course/module completion (from the curriculum) (exam, graded credit, pass/fail credit); Exam

## 2. PREREQUISITES

Knowledge of the basics of surgery, including: wound management techniques and basic surgical procedures, surgical anatomy, pathophysiology, histopathology, infection treatment, and imaging diagnostics.

## 3. OBJECTIVES, LEARNING OUTCOMES, PROGRAM CONTENT, AND TEACHING METHODS

### 3.1. Course Objectives

C1	Mastery of the theoretical foundations regarding the etiology, symptomatology, diagnosis, and treatment of acute and chronic surgical conditions.
C2	Getting acquainted with surgical wards, operating rooms, and outpatient clinics.
C3	Developing skills in examining patients with abdominal conditions and performing basic surgical procedures such as bladder catheterization, wound dressing changes, suture and drain removal, gastric intubation, venous and arterial catheterization etc
C4	Ability to assist during surgical procedures.
C5	Ability to prepare the operating room and administer local anesthesia.
C6	Expanding knowledge with elements of urology, endocrinology, and cardiology
C7	Mastery of the theoretical and practical fundamentals in thoracic and general surgery, cardiac surgery, transplantology, and vascular surgery

### 3.2. Learning outcomes

EK (the effect of education)	The content of the learning outcome defined for the course (module).	Reference to direct learning effect
EK_01	causes, symptoms, principles of diagnosis and therapeutic procedures in relation to the most common diseases requiring surgical intervention, taking into account the specifics of childhood, including in particular: 1) acute and chronic diseases of the abdominal cavity,	F. W1

	2) diseases of the chest, 3) diseases of the limbs and head,  bone fractures and organ injuries;	
EK_02	selected issues in the field of pediatric surgery, including traumatology and otorhinolaryngology, and defects and acquired diseases that are an indication for surgical treatment in children;	F. W2
EK_03	principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures, principles of their performance and the most common complications;	F. W3
EK_04	principles of perioperative safety, preparation of the patient for surgery, performance of general and local anesthesia and controlled sedation;	F. W4
EK_05	postoperative treatment with analgesic therapy and postoperative monitoring;	F. W5
EK_06	in the basic scope of the issues of surgical transplantology, indications for transplantation of irreversibly damaged organs and tissues and procedures related to this;	F. W14
EK_07	conduct a medical interview with an adult patient;	E. U1.
EK_08	conduct a medical interview with a child and his/her family;	E. U2
EK_09	conduct a complete and focused physical examination of an adult patient;	E. U3.
EK_10	conduct a physical examination of a child of any age;	E. U4.
EK_11	interpret laboratory test results and identify causes of deviations from the norm;	E. U24.
EK_12	plan specialist consultations;	E. U32
EK_13	assess pressure sores and apply appropriate dressings;	E. U35.
EK_14	treat injuries (apply a dressing or immobilization, dress and suture the wound);	E. U36
EK_15	maintain the patient's medical records.	E. U38
EK_16	assist with a typical surgical procedure, prepare the surgical site and locally anaesthetize the surgical area;	F. U1.
EK_17	use basic surgical instruments;	F. U2.
EK_18	follow the rules of asepsis and antisepsis;	F. U3.
EK_19	dress a simple wound, apply and change a sterile surgical dressing;	F. U4.
EK_20	examine the nipples, lymph nodes, thyroid gland and abdominal cavity in the aspect of acute abdomen and perform a digital rectal examination;	F. U6
EK_21	treat external bleeding;	F. U9
<b>Social Competencies: The graduate is prepared to:</b>		
EK_22	establish and maintain a deep and respectful contact with the patient, as well as showing understanding for ideological and cultural differences;	K.01
EK_23	be guided by the patient's best interests;	Ko2
EK_24	comply with medical confidentiality and patient rights;	K.03
EK_25	take action towards the patient based on ethical principles, with	K.04

	awareness of the social conditions and limitations resulting from the disease;	
EK_26	detect and recognise his/her own limitations and making self-assessment of educational deficits and needs;	K.05
EK_27	promote health-promoting behaviors;	K.06
EK_28	use objective sources of information;	K.07
EK_29	formulate conclusions from his/her own measurements or observations;	K.08
EK_30	implement the principles of professional camaraderie and cooperation within a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment;	K.09
EK_31	formulate opinions on various aspects of professional activity;	K.10
EK_32	accept responsibility for decisions made in the course of professional activity, including those relating to one's own safety and the safety of others.	K.11

### 3.3. Program content

#### A. Practical Classes:

#### Course Content – Year VI

• Participation in the Daily Work of the Surgical Department
• Assisting in Surgical Procedures
• Preparation of the Surgical Field
• Performing Simple Local Anesthesia
• Qualification/Disqualification of Patients for Surgery and Surgical Risk Assessment
• Obtaining Informed Consent for Surgery
• Preoperative and Postoperative Patient Care
• Planning Preoperative and Postoperative Diagnostics
• Emergency Management in Surgery
• Patient Examination and Medical History Collection Before and After Surgery
• Performing Pleural Cavity Drainage
• Wound, Abscess, and Infection Management
• Recognition and Treatment of Pressure Ulcers
• Prophylactic and Therapeutic Antibiotic Therapy
• Blood Product Therapy
• Understanding Blood Coagulation Mechanisms
• Principles of Surgical Cancer Treatment
• The Role of Preventive Surgery in Oncology

## B. Seminar Topics:

<b>Course Content – Year VI</b>
<b>Review and Repetition of Key Surgical Topics:</b>
1. Organization and Functioning of the Surgical Ward and Operating Room
2. Emergency and Life-Threatening Conditions in Gastrointestinal Surgery
3. Emergency and Life-Threatening Conditions in Vascular Surgery
4. Emergency and Life-Threatening Conditions in Cardiac Surgery
5. Emergency and Life-Threatening Conditions in Thoracic Surgery
6. Emergency and Life-Threatening Conditions in Pediatric Surgery
7. Management of Maxillofacial and Craniofacial Trauma
8. Principles of Surgical Cancer Treatment
9. Tracheostomy – Elective, Urgent, and Emergency Procedures
10. Surgical Risk Assessment Before an Operation

### 3.4. Teaching Methods

**Exercises:** Practical training sessions

**Seminar:** Lecture, Interactive exercises with students, independent student work

### Student Preparation and Participation in Research Work:

- **Formulating Research Hypotheses** based on scientific publications
- **Defining the Research Problem** and developing an appropriate research methodology using well-selected scientific literature
- **Working with Scientific Databases** to gather relevant information
- **Active Participation** in planning and conducting research tasks
- **Processing and Analyzing Experimental Results**
- **Performing Statistical Analysis**
- **Formulating and Interpreting Conclusions** based on research findings
- **Contributing to the Preparation of Scientific Publications**

**Independent Student Work:** Self-study using textbooks and academic literature.

#### 4. METHODS AND ASSESSMENT CRITERIA

##### 4.1. Methods for Assessing Learning Outcomes:

EK (the effect of education)	<b>Methods for Assessing Learning Outcomes:</b> (Quiz/Test, Oral Examination, Written Examination, Project, Report, Observation During Classes)	Forms of Educational Activities (L, PE, S)
EK_01-EK_06	<b>Written quiz with open-ended, closed-ended, and problem-solving questions.</b>	L, S.
EK_07-EK_32	<b>Practical assessment – case analysis.</b>	PE, S

##### 4.2. Conditions for Passing the Course:

All information regarding the rules for conducting and participating in classes is included in the **Regulations for Clinical Classes**, which every student is required to review before the start of the course.

##### Course Completion Requirements – Year VI

##### Practical Exercises

The final grade includes:

- **Active participation in exercises**
- **Completion of procedures assigned to the subject** in the *Clinical Practical Training Logbook*
- **Practical assessment** – a prerequisite for taking the theoretical exam:
- The student must independently conduct a **complete medical history (subjective examination) and physical examination** of a selected patient.

##### Passing criteria:

- Correct presentation of **basic differential diagnosis**
- Proposal of **appropriate additional diagnostic tests**
- Suggestion of an **adequate treatment plan**

## **Final Exam:**

### **Surgery Exam Regulations**

The **surgery exam** takes place **after the completion of the entire surgical training cycle**, at the end of **the 12th semester**, during the **summer examination session**.

The exam consists of **two stages**:

1. **Practical Module**
2. **Written Module**

### **Exam Passing Criteria:**

- The **practical exam must be passed first** before taking the written exam.
- **Passing the practical exam** is a prerequisite for **admission to the written exam**.

## **Practical Exam:**

### **Practical Exam Module**

The **practical exam** is conducted in **selected surgical clinics and departments** designated by the **Head of the Department of Surgery** that provide surgical education.

### **Assessment Criteria:**

During the practical exam, students are evaluated on:

- **Practical knowledge of surgery**
- **Physical examination skills**
- **Analysis and interpretation of symptoms**
- **Analysis and interpretation of test results**

- Diagnostic planning
- Treatment planning and description of therapeutic approaches
- Recognition and management of emergency and life-threatening surgical conditions

#### Passing the Practical Module:

- Successful completion of the practical exam is a prerequisite for taking the written exam.

#### Written Exam Module

The written exam is conducted in the form of a single-choice test. The questions cover the entire surgery curriculum as outlined in the program. Grading is based on the percentage of correct answers according to the assessment criteria specified below. The schedule (dates and locations) for both exam modules is determined by the Head of the Department of Surgery for each student group.

Grading scale based on the percentage of correct answers:

- 93-100%: Excellent (5.0)
- 85-92%: Very Good (4.5)
- 77-84%: Good (4.0)
- 69-76%: Satisfactory Plus (3.5)
- 60-68%: Satisfactory (3.0)
- Below 60%: Fail (2.0)

#### Social Competence Evaluation:

- Continuous assessment by instructors (observations, discussions)
- Peer and patient feedback

#### 5. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE THE DESIRED RESULT IN HOURS AND ECTS CREDITS

Activity	The average number of hours to complete the activity
Contact hours (with the teacher) resulting from the study schedule of classes	120
Contact hours (with the teacher) participation in the consultations, exams	6
Non-contact hours – student's own work (preparation for classes, exam, writing a paper, etc.)	74
SUM OF HOURS 25 TOTAL NUMBER OF ECTS	200
TOTAL NUMBER OF ECTS	8



## 6. PROFESSIONAL INTERNSHIPS

- N/A

## 7. LITERATURE

### **Basic literature:**

Principles and Practice of Surgery 8<sup>th</sup> edition O. James Garden, Rowan W. Parks, Stephen J. Wigmore, Elsevier

### **Additional literature:**

Essential Surgery, 6<sup>th</sup> Edition, Philip J. Deakin & Clive R. G. Quick  
Sabiston Textbook of Surgery, 21<sup>st</sup> Edition Courtney M. Townsend  
100 Cases in Surgery, James A Gossage, Bijan Modarai

Approval of the Head of the Department or Authorized Person.