

**SYLLABUS**  
**concerning the cycle of education 2021-2027**  
**Academic year 2025/2026**

**1. BASIC INFORMATION CONCERNING THIS SUBJECT / MODULE**

<b>Subject / Module</b>	<b>Anesthesiology and intensive therapy</b>
<b>Course code / module *</b>	<b>AIT/F</b>
<b>Faculty of (name of the leading direction)</b>	<b>Faculty of Medicine, University of Rzeszow</b>
<b>Department Name</b>	<b>Department of Emergency Medicine and Intensive Care</b>
<b>Field of study</b>	<b>Medicine</b>
<b>Level of education</b>	<b>Uniform master's studies</b>
<b>Profile</b>	<b>Practical</b>
<b>Form of study</b>	<b>Stationary</b>
<b>Year and semester</b>	<b>Year V, semester 9 and 10</b>
<b>Type of course</b>	<b>Obligatory</b>
<b>Language</b>	<b>English</b>
<b>Coordinator</b>	<b>Dr n. med. Janusz Kidacki</b>
<b>First and Last Name of the Teacher</b>	<b>Dr hab. n. med. Renata Zajączkowska, prof. UR</b> <b>Dr hab. n. med. Bogumiła Wołoszczuk-Gębicka, prof. UR</b> <b>Dr n. med. Janusz Kidacki</b> <b>Lek. med. Jerzy Domagała</b> <b>Lek. med. Beata Horeczy</b>

\* - according to the resolutions of the Faculty of Medicine

**1.1. Forms of classes, number of hours and ECTS**

Lecture	Exercise	Conversation	Laboratory	Seminar	ZP	Practical	Self-learning	<b>Number of points ECTS</b>
30	40	-	-	-	-	-	-	<b>4</b>

**1.2. The form of class activities**

☒ **classes are in the traditional form**

☐ classes are implemented using methods and techniques of distance learning

**1.3. Examination Forms / module (exam, credit with grade or credit without grade)**

## 2. ENTRY REQUIREMENTS

Knowledge of the anatomy and physiology of respiratory, circulatory and nervous systems. Knowledge of the basic principles of first aid.
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## 3. OBJECTIVES, OUTCOMES, AND PROGRAM CONTENT USED IN TEACHING METHODS

### 3.1. Objectives of this course/module

C1	Developing the rules for dealing with the patient in life-threatening situations.
C2	Provide the latest guidelines for cardiopulmonary resuscitation and practical CPR rules in adults and children
C3	The rules of general and regional anesthesia in various surgical fields.
C4	The rules for the qualification of patients for treatment in the intensive care unit.
C5	Acute and chronic pain treatment.

### 3.2. OUTCOMES FOR THE COURSE / MODULE (TO BE COMPLETED BY THE COORDINATOR)

EK (the effect of education)	The content of the learning effect defined for the subject (module)	Reference to directional effects (KEK)
EK_01	Student knows the principles of qualifying for surgical procedures and invasive diagnostic and therapeutic procedures as well as the most common complications;	F. W4
EK_02	Student knows principles of perioperative safety, patient preparation for surgery, general and local anesthesia and controlled sedation;	F. W6
EK_03	Student knows postoperative treatment including analgesia and postoperative monitoring;	F. W7
EK_04	Student knows the indications and rules for the use of intensive therapy	F. W8
EK_05	Student knows guidelines for cardiopulmonary resuscitation of newborns, children and adults;	F. W9
EK_06	Student knows the most common life-threatening conditions in children and adults and principles of management in these conditions, in particular: 1) sepsis; 2) shock; 3) hemorrhages; 4) water-electrolyte and acid-base disorders; 5) poisonings; 6) burns, hypo- and hyperthermia; 7) other acute conditions of: a) cardiovascular, b) respiratory, c) neurological, d) renal, e) oncological and hematological, f) diabetic	F. W10

	and endocrinological, g) psychiatric, h) ophthalmological, i) laryngological, j) gynecological, obstetric and urological;	
EK_07	Student knows invasive methods of pain treatment;	F. W13
EK_08	Student knows principles of management of long-term central venous catheters;	F. W14
EK_09	Student knows conditions in which life expectancy, functional status or patient preferences limit management according to disease-specific guidelines;	F. W22
EK_10	Student knows the principles of suspecting and recognizing brain death;	F. W23
EK_11	Student knows wash surgical hands, put on sterile gloves, dress for surgery or a procedure requiring sterility, prepare the surgical field in accordance with aseptic rules and participate in the surgical procedure;	F. U1
EK_12	Student knows assess and treat a simple wound, including local anesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing;	F. U3
EK_13	The student is able to recognize the most common life-threatening conditions, including the use of various imaging techniques;	F. U4
EK_14	Student knows how to conduct basic life support (Basic Life Support, BLS) in newborns and children in accordance with the guidelines of the European Resuscitation Council (ERC);	F. U9
EK_15	knows how to conduct advanced life support in newborns (Newborn Life Support, NLS) and children (Pediatric Advanced Life Support, PALS) in accordance with ERC guidelines;	F. U10
EK_16	Student knows how to perform basic BLS resuscitation procedures in adults, including the use of an automatic external defibrillator, in accordance with ERC guidelines;	F. U11
EK_17	Student knows how to conduct advanced life support (Advanced Life Support, ALS) in adults in accordance with ERC guidelines;	F. U12
EK_18	Student knows how to convey unfavorable messages using a selected protocol, e.g.: 1) SPIKES: S (Setting - appropriate environment), P (Perception - learning about the interlocutor's knowledge), I (Invitation/Information - invitation to conversation / information), K (Knowledge – conveying unfavorable information), E (Emotions and empathy), S (Strategy and summary – action plan and summary), 2) EMPATHY: E (Emotions), M (Place), P (Patient's perspective), A (Appropriate language), T (Content of the message), I (Additional information), A (Annotation in the documentation), 3) ABCDE: A (Advance preparation - preparation for the conversation), B (Build therapeutic environment - establishing good contact with the family) , C (Communicate well - conveying bad news, taking into account the rules of communication), D (Dealing with reactions - dealing with difficult emotions), E (Encourage and validate - the right to show emotions, redirecting them and responding adequately to ending the meeting ) – including supporting the family in the process of dying with dignity and informing the family about the patient's death;	F. U21
EK_19	Student is able to obtain information from team members, respecting their diverse opinions and specialist competences, and take this information into account in the patient's diagnostic and therapeutic plan, as well as use ATMIST and RSVP/ISBAR protocols.	F. U22
	<b>In terms of social skills and competences, the student is able to:</b>	

EK_20	establish and maintain deep and respectful contact with the patient, as well as show understanding for ideological and cultural differences;	K01.
EK_21	be guided by the patient's good;	K02.
EK_22	respect medical confidentiality and patient rights;	K03.
EK_23	take action towards the patient based on ethical principles, being aware of the social determinants and limitations resulting from the disease;	K04.
EK_24	notice and recognize one's own limitations, self-assess educational deficits and needs;	K05.
EK_25	promote healthy behaviors;	K06.
EK_26	use objective sources of information;	K07.
EK_27	formulate conclusions from your own measurements or observations;	K08.
EK_28	implement the principles of professional camaraderie and team cooperation, including with representatives of other medical professions, also in a multicultural and multinational environment;	K09.
EK_29	formulate opinions on various aspects of professional activity;	K10.
EK_30	accept responsibility for decisions made in the course of professional activity, including in terms of the safety of oneself and others.	K11.

### 3.3. CONTENT CURRICULUM

#### A. Lectures

<b>Course contents</b>
Why should an anesthesiologist assess the patient before the planned surgery? Risk related to anesthesia and its assessment – clinical implications.
General anesthesia, sedation. Specificity of general anesthesia in selected patient groups: elderly patients, patients in shock, bariatric patients, patients with diabetes, COPD, circulatory failure.
Regional anesthesia (spinal anesthesia, epidural anesthesia, peripheral nerve blocks, interfascial blocks). The role of ultrasound in regional anesthesia.
What every physician should know about pain treatment: acute (postoperative, posttraumatic) and chronic. Pain treatment in cancer patients.
Organization of intensive care units. Qualification of patients for admission to intensive care units. Problems of futile therapy. End of life decisions.
Specificity of pediatric anesthesia. Basics of intensive pediatric therapy.
Anesthesia of a pregnant woman. Labor anesthesia.
Treatment of respiratory failure, principles of oxygen therapy.
Treatment of acute circulatory failure. Electrocadiotherapy: defibrillation, cardioversion, cardiac electric stimulation.
Diagnosis and treatment of infections in the intensive care unit. Sepsis and septic shock.
Treatment of severe hemorrhage. Fluid therapy in life-threatening conditions and the perioperative period.
Treatment of severe craniocerebral injuries. Intracranial hypertension. Brain death.

#### B. Practical classes

<b>Course contents</b>
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Preparation and qualification of patients for anesthesia
General anesthesia.
Regional anesthesia.
Treatment of acute and chronic pain
Perioperative care and postoperative monitoring.
Anesthesia in various surgical areas
Anesthetic equipment
Sepsis, septic shock.
Monitoring of cardiovascular and respiratory functions.
Anesthesia and intensive therapy in craniocerebral injuries.

### 3.4. TEACHING METHODS

**Lectures:** multimedia presentation.

**Classes:** clinical classes, classes in simulated conditions in CSM, discussion of clinical scenarios

**Student's own work:** preparations for classes and preparations for the test and exam.

## 4. METHODS AND EVALUATION CRITERIA

### 4.1. Methods of verification of learning outcomes

Symbol of effect	Methods of assessment of learning outcomes (Eg.: tests, oral exams, written exams, project reports, observations during classes)	Form of classes
EK_01 - EK_10	Written test	Lecture
EK_11 - EK_30	Practical pass	Practical classes

### 4.2. Conditions for completing the course (evaluation criteria)

All information regarding the rules of conducting classes and participating in them are included in the regulations of clinical classes, which each student is obliged to read before starting clinical classes.

**Attendance at all forms of classes (lectures, classes) is obligatory.**

The condition for passing the course is passing the classes and a positive grade in the final exam.

To take the final exam is possible after passing the clinical classes.

**Lectures:**

1. mandatory attendance at all lectures.
2. written exam: a test containing 80 single- or multiple-choice questions.

**Knowledge assessment:**

Written test

5.0 - has knowledge of each of the contents of education at the level of 90% -100%

4.5 - has knowledge of each of the content of education at the level of 84% -89%

4.0 - has knowledge of each of the content of education at the level of 77% -83%

3.5 - has knowledge of each of the content of education at the level of 70% -76%

3.0 - has knowledge of each of the content of education at the level of 60% -69%

2.0 - has knowledge of each of the contents of education below 60%

**Classes:**

1. full participation and activity in the exercises
2. passing the classes is based on verification of acquired skills and knowledge and demonstration of appropriate attitude.

Range of ratings: 2.0 - 5.0

**Skill assessment**

5.0 - the student actively participates in the classes, is well prepared, knows the principles of perioperative safety, prepares the patient for surgery, performs general and local anesthesia, assists in a typical surgical procedure

4.5 - the student actively participates in the classes, knows the principles of perioperative safety, prepares the patient for surgery, performs general and local anesthesia, assists with typical surgery

4.0 - the student actively participates in the classes, is improved, knows the principles of perioperative safety, prepares the patient for surgery, performs general and local anesthesia, assists with typical surgery, is corrected

3.5 - the student participates in classes, his scope of preparation does not allow for a comprehensive presentation of the discussed problem, he knows the principles of perioperative safety, preparing the patient for surgery, performing general and local anesthesia, assists with typical surgery

3.0 - the student participates in classes, knows the principles of perioperative safety, prepares the patient for surgery, performs general and local anesthesia, assists with a typical surgical procedure, but is often corrected

2.0 - the student passively participates in the classes, the statements are incorrectly substantive, do not know the principles of perioperative safety, prepare the patient for surgery,

perform general and local anesthesia, do not assist with typical surgery, because he makes a lot of mistakes

**Assessment of social competences:**

- continuous assessment by the teacher (observation)
- discussion during classes
- opinions of patients and colleagues.

**THEORETICAL ASSESSMENT – WEIGHT 1**

**PRACTICAL ASSESSMENT – WEIGHT 1**

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

Activity	Hours / student work
Contact hours resulting from the study plan	70
Others involving a teacher (participation in consultations, examination)	2
Student's own work (preparation for classes, exams)	40
<b>SUM OF HOURS</b>	<b>112</b>
<b>TOTAL NUMBER OF ECTS</b>	<b>4</b>

**6. TRAINING PRACTICES IN THE SUBJECT / MODUL**

Number of hours	-
Rules and forms of apprenticeship	-

**7. LITERATURE**

**BASIC LITERATURE:**

1. Oxford Handbook of Anaesthesia. Freedman R, Herbert L, O'Donnell A, Ross N. Oxford University Press 2022
2. Critical Care Medicine at a Glance 4<sup>th</sup> edition. Leach RM. John Wiley and Sons Ltd. 2023.
3. EUROPEAN RESUSCITATION COUNCIL GUIDELINES 2021, [HTTPS://CPRGUIDELINES.EU/GUIDELINES-2021](https://cprguidelines.eu/guidelines-2021)
4. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021. Critical Care Medicine 2021; 49(11): 1063-1143. Open access.
5. The European Guideline on Management of Major bleeding and coagulopathy following trauma: sixth edition. Crit Care 2023; 27(1) :80. doi: 10.1186/s13054-023-04327-7. Open access.

Acceptance Head of Department or authorized person