

## SYLLABUS

CONCERNING THE CYCLE OF EDUCATION **2020-2026**

ACADEMIC YEAR 2025-2026

### 1. BASIC INFORMATION CONCERNING THIS SUBJECT

Subject	<b>Emergency medicine</b>
Course code *	<b>EM/F</b>
Faculty (name of the leading direction)	<b>Faculty of Medicine, University of Rzeszow</b>
Department Name	<b>Department of Emergency Medicine and Intensive Care</b>
Field of study	<b>Medicine</b>
Level of education	<b>Uniform master studies</b>
Profile	<b>General academic</b>
Form of study	<b>Full time studies</b>
Year and semester	<b>Year VI, semester 11</b>
Type of course	<b>Mandatory</b>
Language	<b>English</b>
Coordinator	<b>Dr n. med. Paweł Musiał</b>
First and Last Name of the Teachers	<b>Dr n. med. Paweł Musiał</b>

\* - according to the resolutions of Educational Unit

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

Lecture	Exercise	Conversation	Laboratory	Seminar	ZP	Practical	Other	Number of points ECTS
-	50	-	-	10	-	-	-	4

### 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 (EXAM, CREDIT WITH GRADE OR CREDIT WITHOUT GRADE)**

## **2. BASIC REQUIREMENTS**

Knowledge in the field of emergency medicine from previous years. Knowledge of clinical subjects: anesthesiology and intensive care, internal diseases, cardiology, pediatrics, surgery, neurology, neurosurgery, orthopedics with traumatology of the musculoskeletal system, gynecology and obstetrics, ophthalmology, otolaryngology.

## **3. OBJECTIVES, OUTCOMES, AND PROGRAM CONTENT USED IN TEACHING METHODS**

### **3.1. OBJECTIVES OF THE COURSE**

C1	The aim of teaching is to acquire and consolidate knowledge, skills and competences for diagnosis and treatment in life-threatening situations of adults and children.
C2	preparing students to implement adequate rescue procedures in specific life-threatening situations and developing skills in managing rescue operations in a rescue team
C3	familiarizing students with the principles of planning and organizing medical support in traffic, industrial, chemical and ecological disasters, natural disasters and military threats
C4	preparing students to conduct medical, rescue and evacuation activities at the disaster site and outside the operational zone and to cooperate with other rescue services

### **3.2. OUTCOMES FOR THE COURSE**

<b>EK (THE EFFECT OF EDUCATION)</b>	<b>THE CONTENT OF LEARNING OUTCOMES DEFINED FOR THE CLASS (MODULE)</b> The student knows and is able to:	<b>REFERENCE TO DIRECTIONAL EFFECTS</b>
EK_01	measure and assess basic vital functions (temperature, heart rate, blood pressure) and monitor them using a cardiomonitor and a pulsoximeter;	H.U <sub>1</sub> .
EK_02	perform non-instrumental and instrumental unblocking of the airways;	H.U <sub>2</sub> .
EK_03	perform intravenous, intramuscular and subcutaneous administration of the drug;	H.U <sub>5</sub> .
EK_04	perform urinary bladder catheterization in a woman and a man;	H.U <sub>10</sub> .
EK_05	perform pleural procedures: puncture and decompression of pneumothorax;	H.U <sub>13</sub> .
EK_06	perform a standard electrocardiogram and interpret its result;	H.U <sub>14</sub> .

EK_07	perform defibrillation, electrical cardioversion, external electrostimulation;	H.U <sub>15</sub> .
EK_08	assess and treat a simple wound, including local anesthesia (superficial, infiltration), applying and removing surgical sutures, applying and changing a sterile surgical dressing;	H.U <sub>18</sub> .
EK_09	treat external bleeding;	H.U <sub>19</sub> .
EK_10	temporarily immobilize the limb, including selecting the type of immobilization in typical clinical situations and checking the proper blood supply to the limb after applying the immobilization dressing;	H.U <sub>20</sub> .
EK_11	immobilize the cervical and thoracolumbar spine after injury;	H.U <sub>21</sub> .
EK_12	perform anterior nasal tamponade;	H.U <sub>22</sub> .
EK_13	perform an ultrasound examination in life-threatening situations according to the FAST protocol or its equivalent and interpret its result;	H.U <sub>23</sub> .
EK_14	collect an interview with an adult, including an older person, using skills regarding the content, process and perception of communication, taking into account the biomedical perspective and the patient's perspective;	H.U <sub>25</sub> .
EK_15	collect an interview with the child and his/her caregivers, using skills regarding the content, process and perception of communication, taking into account the biomedical and patient perspectives;	H.U <sub>26</sub> .
EK_16	collect an interview in a life-threatening situation using the SAMPLE scheme;	H.U <sub>27</sub> .
EK_17	perform a complete and focused physical examination of the adult tailored to the specific clinical situation;	H.U <sub>28</sub> .
EK_18	convey unfavorable news using the selected protocol (e.g. SPIKES, EMPATHY, ABCDE), including supporting the family in the process of the patient dying with dignity and informing the family about the patient's death;	H.U <sub>30</sub> .
EK_19	obtain information from team members, respecting their diverse opinions and specialized competences, take this information into account in the patient's diagnostic and therapeutic plan and apply ATMIST, RSVP/ISBAR protocols;	H.U <sub>31</sub> .
EK_20	confirm the patient death;	H.U <sub>33</sub> .
EK_21	perform oxygen therapy using non-invasive methods;	H.U <sub>36</sub> .
EK_22	perform basic life support (BLS) in newborns and children in accordance with ERC guidelines;	H.U <sub>37</sub> .
EK_23	perform advanced neonatal life support (NLS) and pediatric life support (PALS) in accordance with ERC guidelines;	H.U <sub>38</sub> .

EK_24	perform basic life support (BLS) in adults, including using an automated external defibrillator, in accordance with ERC guidelines;	H.U.39.
EK_25	perform advanced life support (ALS) in adults in accordance with ERC guidelines;	H.U.40.
EK_26	recognize the most common life-threatening conditions using various imaging techniques;	H.U.41.

### 3.3. CONTENT CURRICULUM

#### A. Problems of the practical classes

Course contents
1. Assessment of the severity of body injuries, treatment of severe injuries to the musculoskeletal system.
2. Life-saving procedures in body injuries: cricocephalic, cricotomy, thoracocentesis, chest drainage
3. ALS 4H hypothermia, hypoxia, hypovolemia, electrolyte disorders
4. ALS 4T: cardiac thromboembolism – ACS; pulmonary thromboembolism: pulmonary embolism, thromboembolic complications; pneumothorax; pericardial tamponade; poisoning
5. Special situations in cardiac arrest: asthma, anaphylaxis
6. Special situations in cardiac arrest: hypothermia, drowning
7. Special situations in cardiac arrest: resuscitation of a pregnant woman, resuscitation of a newborn after birth
8. Septic shock.
9. Cardiogenic shock
10. Post-resuscitation care
11. Decisions in CPR: ending CPR, DNAR, palliative care
12. Environmental hazards.

#### B. Problems of seminars

Course contents
a) revision and extension of the most important issues in the field of intensive care and emergency medicine
b) repetition and analysis of test questions from previous years with LEK

### 3.4. DIDACTIC METHODS

**SEMINARS:** PROBLEM-BASED LECTURE, LECTURE WITH MULTIMEDIA PRESENTATION, DISCUSSING CLINICAL SCENARIOS,

**PRACTICAL CLASSES:** SIMULATION, GROUP WORK (SOLVING PROBLEM TASKS, DISCUSSION), DIDACTIC GAMES

Student's own work: preparation for classes and seminars

## 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_22 - EK_26	FINAL TEST: WRITTEN TEST	SEMINARS
EK_01 – EK_21	OBJECTIVE STRUCTURED CLINICAL EXAMINATION: PRACTICAL TEST	PRACTICAL CLASSES

### 4.2. CONDITIONS FOR COMPLETING THE COURSE (EVALUATION CRITERIA)

#### ATTENDANCE AT ALL FORMS OF CLASSES IS OBLIGATORY

#### KNOWLEDGE ASSESSMENT:

##### **WRITTEN TEST EXAM FROM SEMINARS: 80 SINGLE- OR- MULTIPLE-CHOICE QUESTIONS**

5.0 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT AT A LEVEL OF 93%-100%

4.5 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT AT A LEVEL OF 85%-92%

4.0 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT AT A LEVEL OF 77%-84%

3.5 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT AT A LEVEL OF 69%-76%

3.0 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT AT A LEVEL OF 60%-68%

2.0 – DEMONSTRATES KNOWLEDGE OF THE EDUCATIONAL CONTENT BELOW 60%

#### ASSESSMENT OF PRACTICAL SKILLS:

PRACTICAL PART ACCORDING TO THE OSCE COURSE ASSESSMENT REGULATIONS

#### **THEORETICAL ASSESSMENT – WEIGHT 1**

#### **PRACTICAL ASSESSMENT – WEIGHT 1**

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

Activity	<b>The average number of hours to complete the activity</b>
Contact hours (with the teacher) resulting from the study schedule of classes	60
Contact hours (with the teacher) participation in the consultations, exams	2
Non-contact hours - student's own work	58

(preparation for classes, exam, writing a paper, etc.)	
SUM OF HOURS	120
TOTAL NUMBER OF ECTS	4

\* *IT SHOULD BE TAKEN INTO ACCOUNT THAT 1 ECTS POINT CORRESPONDS TO 25-30 HOURS OF TOTAL STUDENT WORKLOAD.*

## 6. TRAINING PRACTICES IN THE SUBJECT

NUMBER OF HOURS	NONE
RULES AND FORMS OF APPRENTICESHIP	NONE

## 7. LITERATURE

### BASIC LITERATURE:

1. European Resuscitation Council Guidelines 2025 Executive Summary  
[https://www.ur.edu.pl/files/user\\_directory/1383/Guidelines%20ERC%202025.pdf](https://www.ur.edu.pl/files/user_directory/1383/Guidelines%20ERC%202025.pdf)
2. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021. Critical Care Medicine 2021; 49(11): 1063-1143. Open access.
3. 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.
4. Emergency Medicine: Diagnosis and Management, Anthony F. T.

### ADDITIONAL LITERATURE

1. Critical Care Medicine at a Glance 4<sup>th</sup> edition. Leach RM. John Wiley and Sons Ltd. 2023.
2. Emergency Medicine: diagnosis and management. A. Brown, M. Cadogan. Taylor & Francis 2020.

Acceptance Department Manager or authorized person