**SYLLABUS**

concerning the cycle of education 2020-2026

Academic year 2020/2021

1.1. BASIC INFORMATION CONCERNING THIS SUBJECT / MODULE

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| Subject / Module | **Emergency medicine with elements of disaster medicine** |
| Course code / module\* | **MR/F** |
| Faculty of (name of the leading direction) | **Medical Faculty, University of Rzeszów** |
| Department Name | **Medical Psychology Department** |
| Field of study | **Medical** |
| Level of education | **Uniform master's degree** |
| Profile | **General academic** |
| Form of study | **Full-time / part-time** |
| Year and semester | **III year, VI semester** |
| Type of course | **Required** |
| Coordinator |  |
| First and Last Name of the Teacher |  |

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

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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lecture | Exercise | Conversation | Laboratory | Seminar | ZP | Practical | Self-  learning | Number of points  ECTS |
| 25 | 40 |  |  |  |  |  |  | 4 |

**1. 3.The form of class activities.**

☒Classes are in the traditional form.

☒ Classes are implemented using methods and techniques of distance learning.

1.4. Examination forms/module (exam, **credit with grade** or credit without grade

**2. Requirements**

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| Basic knowledge of the physiology and pathophysiology of circulatory and respiratory system |

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

**3.1. Objectives of this course/module**

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| --- | --- |
| C1 | Presentation of the rules of conduct and acquisition of basic and advanced rescue skills in various life-threatening conditions in adults and children |
| C2 | Acquainting with the organizational, ethical and psychological aspects of the rescue operation. |
| C3 | Presentation of the issues included in the Act on the State Medical Rescue. |

**3.2 OUTCOMES FOR THE COURSE / MODULE**

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| --- | --- | --- |
| EK (the effect of education) | The content of the learning effect defined for the subject (module) | Reference to directional effects (KEK) |
| EK­\_01 | Knows the current guidelines for cardiopulmonary resuscitation in newborns, children and adults | F.W7. |
| EK\_02 | Knows the principles of operation of the integrated system of state medical rescue | F.W8 |
| EK\_03 | Puts on a peripheral venipuncture | F.U5 |
| EK\_04 | Can treat external bleeding | F.U9 |
| EK\_05 | Performs basic life support procedures with the use of an automatic external defibrillator, other emergency procedures and provides first aid | F.U10. |
| EK\_06 | Operates according to the current algorithm of advanced life support | F.U11 |
| EK\_07 | Assesses the condition of the unconscious patient in accordance with the applicable international point scales | F.U21 |
| EK\_08 | Student is guided by the good of the sick, putting them in the first place | K.02 |

**3.3 CONTENT CURRICULUM**

A. **Lectures**

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| **Course contents** |
| Introduction to Emergency Medicine and Disasters. Principles of organization and structure of the National System of Medical Rescue. System units - organization and function. Legal basis for medical rescue operations in Poland - the Act on the State Emergency Medical Services. |
| The role of intensive care in the emergency medical system. Practical assessment of the severity and extent of bodily injuries on the basis of the applicable scales. Assessment of the victim's awareness. The modern concept of the organization of the care system in craniocerebral injuries in adults and children. Early management of cerebral edema. |
| Pathophysiology, epidemiology of injuries - ranges of mortality in injuries, the concept of the "golden hour". Mass accidents and catastrophes - principles of segregating victims in mass accidents and catastrophes. The order and scope of emergency aid provided. |
| Chest Injury in Multiple Personal Injuries in Adults and Children. Abdominal injuries in adults and children - blunt abdominal injuries, stab wounds and gunshot wounds. Principles of the rescue procedure. |
| Sudden cardiac arrest. Current BLS and ALS standards Injuries of the spine and spinal cord - specificity of the procedure at the scene of the accident and during transport. Stroke, intracranial haemorrhage - diagnosis, management, therapeutic possibilities in the practice of emergency medicine. Principles of treatment of craniofacial injuries (including the eyeball). |
| Acute cardiac conditions in emergency medicine. Acute circulatory failure. Myocardial infarction. Life-threatening arrhythmias. Principles of diagnosis and treatment of cardiogenic shock. |
| Principles of diagnosis and treatment of different types of shock. Principles of fluid therapy and the use of blood and blood products in life-threatening situations. Emergency aid in pregnant women in various life-threatening conditions. Injuries of a pregnant woman - diagnosis, management and transport. Principles of delivery in outpatient conditions. |
| Metabolic and endocrine diseases that threaten the patient's life - hypoglycemia, hyperglycemia, adrenal and thyroid crisis. |
| Life-threatening poisoning with pharmacological agents and toxic substances. Emergency procedures in acute poisoning with drugs, chemicals, toxic agents (including smoke, carbon monoxide, alcohol) - gastric lavage, neutralization of chemicals. Principles of decontamination. |
| Acute respiratory failure - causes, diagnosis, emergency care. Principles of mechanical ventilation. |
| Proceedings in life-threatening situations in children. Damage to the osteoarticular system. Emergency procedures and principles of modern immobilization and transport of patients with severe bodily injuries. |
| Emergency help for patients with frostbite, electrocution or lightning. Rescue procedure with a drowning person. Pathophysiology drowning, altitude sickness. |
| Systems and segregation sets used in mass incidents. The role and tasks of the hospital emergency department in the conditions of a mass accident and catastrophe. |
| Chemical disasters, Radiation disasters, Radiation teams. Principles of international cooperation and assistance in the event of disasters, Human rights in emergency situations in the light of Polish and international law |

1. **Exercise**

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| **Course contents** |
| Practical assessment of respiratory and circulatory system functions. Criteria for the diagnosis of death at the scene of an accident. Basic (BLS) and advanced (ALS) resuscitation procedures in adults and children. Emergencies. Discussion of the management in selected cases. |
| Basic (BLS) and advanced (ALS) resuscitation in adults and children Cd. Resuscitation of the pregnant woman, newborn. Evaluation of the effectiveness of resuscitation procedures. |
| Intensive care techniques in emergency medicine. Invasive and non-invasive diagnostics in life-threatening conditions, including ultrasound, computed tomography, magnetic resonance imaging, videoscopy. |
| Management of the unconscious, respiratory failure, cardiac arrest, victims of road accidents and other emergencies. Elements of patient examination, differential diagnosis, interpretation of imaging tests Epidemiology of burns, principles of assessing the severity of a thermal injury. Pre-medical and medical help on the place of the incident. Local treatment of a burn wound. Practical exercises in the intensive care unit for burns. |
| Practical classes in the fire and rescue unit of the State Fire Service. Securing the scene of the accident against secondary effects, taking into account safety victims and rescuers. Practical tasks emergency medical services at various organizational levels - primary, provincial and regional. |

**3.4 TEACHING METHODS**

Lectures: PowerPoint presentation

Exercises: practical workshops in groups

**4. METHODS AND EVALUATION CRITERIA**

1. Methods of verification of learning outcomes

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| Symbol of effect | Methods of assessment of learning outcomes (Eg.: tests, oral exams, written exams, project reports, observations during classes). | Form of classes (lecture, seminar, …) |
| Ek\_ 01 | Written colloquium | L |
| EK\_02 | Written colloquium | L |
| EK\_03 | Practical | E |
| EK\_04 | Practical | E |
| EK\_05 | Practical | E |
| EK\_06 | Practical | E |
| EK\_07 | Practical | E |
| EK\_08 | Practical | E |

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

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| **Lectures:**   * + - 1. Completion of the program content planned for implementation during a given semester       2. In order to pass, the student is required to obtain more than 60% of correct answers   **Evaluation of knowledge:**  Written colloquium:  5.0 - has knowledge of the content of education at the level of 90% -100%  4.5 - has knowledge of the content of education at the level of 84% -89%  4.0 - has knowledge of the content of education at the level of 77% -83%  3.5 - has knowledge of the content of education at the level of 70% -76%  3.0 - has knowledge of the content of education at the level of 60% -69%  2.0 - has knowledge of the educational content below 60%  Positive evaluation of the subject can be obtained only on condition of obtaining a positive assessment for each of the established learning outcomes  **Skills assessment**  5.0 - the student actively participates in the classes, is well prepared, knows the rules of conduct very well and has acquired basic and advanced rescue skills  4.5 - the student actively participates in the classes, knows the rules of conduct well and has acquired basic and advanced rescue skills  4.0 - the student actively participates in classes, is corrected, knows the rules of conduct well and has acquired basic and advanced rescue skills  3.5 - the student participates in the classes, his scope of preparation does not allow for a comprehensive presentation of the discussed problem, knows the rules of conduct sufficiently and has acquired basic and advanced rescue skills  3.0 - the student participates in the classes, knows the rules of conduct sufficiently and has acquired basic rescue skills  2.0 - the student passively participates in classes, the statements are factually incorrect, does not know the rules of conduct and has not acquired basic rescue skills  Assessment of social competences (EK\_08):  - continuous assessment by the teacher (observation)  - discussion during classes |

**5. Total student workload required to achieve the desired result in hours and ECTS credits**

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| --- | --- |
| Form of activity | Hours/student work |
| Hours of classes according to plan with the teacher | 65 |
| Participation in the consultations | 5 |
| Non-contact hours | 50 |
| SUM OF HOURS | 110 |
| **TOTAL NUMBER OF ECTS** | 4 |

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

(does not concern)

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| --- | --- |
| Numer of hours | - |
| Rules and forms of apprenticeship | - |

**7. LITERATURE**

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| 1. **Basic literature:** Plantz SH, Wipfler EJ. Emergency medicine. Elsevier Urban & Partner, 2008. |

Acceptance Unit Manager or authorised person