



**48SJ-EMEDM**

**ECTS: 4**

**YEAR: 2024L**

**EMERGENCY MEDICINE WITH ELEMENTS OF DISASTER MEDICINE**

**COURSE CONTENT CLASSES**

The specificity of work in the emergency department (ED. Triage in the emergency department. Patients monitoring in the ED. Advanced life support (ALS) in adults and children including electrotherapy. Dealing with trauma patients in the emergency department. Patients with impaired circulation and respiration - diagnosis and treatment of ED. Acute neurological conditions including CNS trauma, seizures and stroke. Therapeutic procedures in the emergency department. Diagnostic procedures in the emergency department with particular emphasis on radiological examination. Introduction to ITLS. Prehospital care of trauma patients. The preliminary survey, fast trauma examination. Treatment of patients with head trauma, and cervical spine injury. Diagnostic imaging in trauma in Emergency Department. Spine injuries- transport safety, diagnosis, initial stabilization in ED. Pelvic trauma. Musculoskeletal injuries- X-ray imagining, initial treatment. Dislocations and sprains - diagnosis and treatment. Hypovolemic shock- fluid therapy and blood therapy in ED. Treatment of patients with burns. Emergencies in cardiology: ACS-diagnosis, procedures. ECG analysis. Cardiogenic pulmonary edema. Cardiogenic shock- use of vasopressors. Pulmonary embolism, aortic dissection. Tachyarrhythmias, bradyarrhythmias- analysis of ECG, external pacing and cardioversion. Advanced life support- ERC guidelines 2015 (exercises using phantoms). ALS in children (exercises using phantoms) . Triage -START and Jump-START systems. Donning and Doofing of PPE. Role of Emergency Medical Services in Distaster Management and Preparedness

**LECTURES**

Advanced life support (ALS) in adults and children according to ERC 2015. Post-resuscitation care. Prehospital care of trauma patient– „ Stay and play” or „Scoop and run”? Head trauma in ED. Musculoskeletal trauma - radiological diagnostics and treatment in ED. The role of ED in care and diagnostics of patients with acute ischemic stroke. SEMINARS: Multi-organ injuries, the role of the Trauma Centre and Trauma Team. Multi-organ casualty – discussion of the medical case based on Evidence Based Medicine. Bases of fluid therapy. Practical basis of ECG. Introduction to Disaster Medicine. Bioterrorism in the world- threat, Role of Emergency Medical Services in Distaster Management and Preparedness

**EDUCATIONAL OBJECTIVE:**

The aim of the course is to acquaint students with the specifics of the medical work in the emergency department and to prepare students for performing the diagnosis and treatment of primary and most common emergencies. The aim of the course is to prepare the student to making quick, accurate and critical decisions while working in the emergency department

**DESCRIPTION OF LEARNING OUTCOMES FOR THE COURSE IN RELATION TO FIELD AND MAJOR LEARNING OUTCOMES**

Codes of learning outcomes in a major field of study:	M/NM+++, M/NMA_P7S_KR+,
Codes of learning outcomes in a major area of study:	E.U14.+ , E.U7.+ , F.U11.+ , F.U22.+ , F.U5.+ , F.U7.+ , F.W1.+ , F.W10.+ , F.W7.+ , F.W8+ , K.2.+ , K.3.+ , K.5+ , KA7_KR2+ ,

**LEARNING OUTCOMES:**

**Knowledge**

- W1 - F.W.8The student knows the rules of the EMS system in Poland
- W2 - F.W.7The student knows the current guidelines for cardiopulmonary resuscitation in all age groups
- W3 - F.W.10The student knows indications and contraindications to performing imaging tests. Correctly selects and interprets x-rays
- W4 - FW1 causes, symptoms and principles for the diagnosis and therapeutic treatment RESPECT TO most frequent diseases requiring surgical intervention regard to distinctness of childhood INCLUDING, 1) acute and chronic abdominal diseases, 2) Thoracic 3) DISEASE and head ache, 4 ) BONE BREAKS AND ORGAN INJURIES

**Skills**

- U1 - EU7 Assesses the general condition, consciousness and awareness of the patient
- U3 - F.U.10 Performs basic resuscitation procedures using an automatic external defibrillator and other emergency operations and first aid F.U11. use in practice the algorithm of Advanced Life Support (ALS);
- U4 - F.U11. use in practice the algorithm of Advanced Life Support (ALS);
- U6 - F.U.5 insert intravenous access
- U7 - F.U.7 The student can interpret imaging tests for the presence of skeletal injuries
- U9 - F.U22. recognize the symptoms of increasing intracranial pressure;

**Social competence**

- K1 - K.3 The student should be aware of the responsibility that lies on the doctor of emergency medicine
- K2 - K. 5 It has a student aware of their own limitations and the ability to DC continuing education
- K3 - K.2 He directs the good of the patient, putting them in first place
- K4 - KA7\_KR2The student should master the art of working in a group, be able to plan the work of the medical team.

**BASIC LITERATURE**

<b>Course/module:</b> Emergency Medicine with Elements of Disaster Medicine	
<b>Fields of education:</b>	
<b>Course status:</b>	mandatory
<b>Course group:</b>	B - przedmioty kierunkowe
<b>ECTS code:</b>	
<b>Field of study:</b>	Medicine
<b>Specialty area:</b>	Medicine
<b>Educational profile:</b>	General academic
<b>Form of study:</b>	full-time
<b>Level of study:</b>	uniform master's studies
<b>Year/semester:</b>	5 / 10
<b>Type of course:</b> Classes, Seminar, Lecture	
<b>Number of hours per semester/week:</b>	Classes: 50, Seminar: 10, Lecture: 20
<b>Teaching forms and methods</b> Classes(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4) : practical classes, Seminar(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4) : multimedia presentation , discussion, Lecture(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4) : lecture with multimedia presentation	
<b>Form and terms of the verification results:</b> CLASSES: Competention test - null(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4) ; SEMINAR: Part in the discussion - null(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4) ; LECTURE: Part in the discussion - null(K1, K2, K3, K4, U1, U3, U4, U6, U7, U9, W1, W2, W3, W4)	
<b>Number of ECTS points:</b>	4
<b>Language of instruction:</b>	English
<b>Introductory courses:</b> anatomy, physiology, internal medicine, pediatrics, neurology, anesthesiology and intensive care	
<b>Preliminary requirements:</b> knowledge of these subjects	
<b>Name of the organizational unit offering the course:</b> Katedra Medycyny Ratunkowej,	
<b>Person in charge of the course:</b> dr n. med. Rakesh Jalali,	
<b>Course coordinators:</b>	
<b>Notes:</b>	

1) ERC, "European Resuscitation Guidelines, wyd. ERC, 2015 ; 2) David Cline , O. John Ma , Rita Cydulka , Garth Meckler, , Tintinalli's Emergency Medicine Manual , wyd. ,, 2017

**SUPPLEMENTARY LITERATURE**

1) ,, ATLS Student Course Manual, online , wyd. MP, 2015 ; 2) ,, ,, wyd. ,, ,, ,

## Detailed description of the awarded ECTS points - part B

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The awarded number of ECTS points is composed of:

#### 1. Contact hours with the academic teacher:

- participation in: classes	50 h.
- participation in: seminar	10 h.
- participation in: lecture	20 h.
- consultation	2 h.
	82 h.

#### 2. Student's independent work:

-	18 h.
	18 h.

1 ECTS point = 25-30 h of the average student's work, number of ECTS points = 100 h : 25 h/ECTS = 4,00 ECTS

on average: **4 ECTS**

- including the number of ECTS points for contact hours with direct participation of the academic teacher:	3,28 ECTS points,
- including the number of ECTS points for hours completed in the form of the student's independent work:	0,72 ECTS points,