UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN
Faculty of Medicine

Course sylabus – part A

USOS Code: 48SJ-EMEDM
ECTS: 4.00
Cycle: 2026L

Emergency Medicine with Elements of Disaster Medicine

SUBJECT MATTER CONTENT:

Lecture – Advanced life support (ALS) in adults and children according to ERC 2021. 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.

Seminar – 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

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 2021 (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

TEACHING OBJECTIVE:

The aim of the course is to acquaint students with the specifics of the medical work in the emergency department and to

Legal acts specifying learning outcomes: 672/2020;

Discipline: Medicine

Course status: Obligatory

Group of courses: B - major course

ISCED Code: 0912

Field of studies: Medicine

Field: Medicine

Learning profile: -

Form of studies: full-time

Level of studies: uniform master's studies

Year/Semester: 5th year 9th semester, Medicine in English

Classes types: Lecture; Seminar; Classes;

Classes: Lecture (20h); Seminar (10h); Classes (50h);

Language: ANG

Introductory subject: anathomy, physioloy, internal medicine, pediatrics, neurology, anesthesiology and intensive care

Prerequisites: information from the enumerated subjects

Organized by the unit:

Coordinators responsible for the course:

Rakesh Jalali, rakesh.jalali@uwm.edu.pl

Additional notes:

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 THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY

Symbols for outcomes related to the discipline:
M/NM++++++++++++++++++

Symbols for outcomes related to the field of study:
K.3.+, K.5.+, K.2.+, F.U10.+, F.U11.+, F.U21.+, F.U22.+, E.U14.+, F.U7.+, F.U8.+, M/NM_F.W1.+, M/NM_F.W7.+, M/NM_F.W10.+

LEARNING OUTCOMES:

Knowledge (W1) – causes, symptoms, principles of diagnostic and therapeutic procedures for the most common diseases requiring surgical intervention, both adults and children, in particular: 1) acute and chronic abdominal diseases, 2) chest diseases, 3) limb and head diseases, 4) bone fractures and organ injuries;

Knowledge (W2) – He knows the current guidelines for cardiopulmonary resuscitation of newborns, children and adults

Knowledge (W3) – the issues of the contemporarily employed imaging tests, especially: 1) radiological symptomatology of the basic diseases, 2) the instrumental methods and imaging techniques used in medical surgeries, 3) the indications, contraindications, and patient preparation for individual types of imaging tests, and contraindications against the use of contrast agents;

Skills (U1) – Performs basic resuscitation procedures using an automatic external defibrillator and other rescue operations and first aid

Skills (U2) – act in accordance with the algorithm of advanced resuscitation procedures;

Skills (U3) – assess the condition of an unconscious patient in accordance with international point scales;

Skills (U4) – recognise symptoms of growing intracranial pressure;

Skills (U5) – recognise immediately life-threatening conditions

Skills (U6) – assess the results of radiological tests for the most frequent types of fractures, especially long bone fractures

Skills (U7) – immobilise a limb temporarily, select the type of immobiliser necessary in typical clinical situations, and control the correct blood flow in the limb once the immobilising dressing has been applied;

Social competences (K1) – Respects medical confidentiality and patient's rights.

Social competences (K2) – noticing and recognizing own limitations and self-assessment of deficits and educational needs

Social competences (K3) – Guided by the good of the patient putting them in the first place.

Symbols for outcomes related to the field of study:

Lecture – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'U4', 'U5', 'U6', 'U7'] – multimedia presentation

Seminar – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'U4', 'U5', 'U6', 'U7'] – multimedia presentation, case report, discussion

Classes – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'U4', 'U5', 'U6', 'U7'] – CLINICAL CLASSES

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Evaluation of the work and cooperation in the group) – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'U4', 'U5', 'U6', 'U7'] – Evaluation of the work and cooperation in the group

Seminar (Evaluation of the work and cooperation in the group) – ['W1', 'U1', 'K1', 'W2', 'U2', 'K2', 'W3', 'U3', 'K3', 'U4', 'U5', 'U6', 'U7'] – Evaluation of the work and cooperation in the group

Classes (Colloquium test) – [] – Single-choice test

REQUIRED LITERATURE:

1. **ERC GUIDELINES 2021",**

   ERC; ERC; 2021; Pages: ; Tome: ;

COMPLIMENTARY LITERATURE:

UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYN
Faculty of Medicine

Detailed description of ECTS credits awarded - part B

USOS Code: 48SJ-EMEDM
ECTS: 4.00 Emergency Medicine with Elements of Disaster Medicine
Cycle: 2026L

1. Contact hours with the academic teacher:

- participation in: Lecture	20 h
- participation in: Seminar	10 h
- participation in: Classes	50 h
- consultation	2 h
	Total: 82 h

Independent work of a student:

-	10.00 h
-	8.00 h
	Total: 18.00 h

contact hours + independent work of a student Total: 100.00 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS

ECTS Points = 100.00 h : 25 h/ECTS = 4.00 ECTS

Average: 4.00 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher - 3.28 ECTS pts

- including the number of ECTS credits for hours of independent work of a student - 0.72 ECTS pts