Załącznik nr 5 do zarządzenia nr 189/2025

COURSE SPECIFICATION

Course code: 0912-7LEK-C-EDM
Course title in Polish: Medycyna Ratunkowa i Medycyna Katastrof
Course title in English: Emergency Medicine and Disaster Medicine

1. Placement of the course within the study programme

1.1. Field of study	Medicine
1.2. Mode of study	Full-time
1.3. Level of study	Uniform Master's study
1.4. Profile of study	General academic
1.5. Course specification author	Lek Tomasz Waleriańczyk
1.6. Contact	Tomasz Waleriańczyk <twalerianczyk@gmail.com

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	English
2.2. Prerequisites*	Prerequisites: Successful completion of core preclinical and clinical subjects, including Anatomy, Physiology, Pathophysiology, Pharmacology, and basic clinical skills (clinical examination, basic ECG interpretation, basic life support).

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes		Lectures 15h, classes 10h, practical classes 15
3.2. Place of classes		Collegium Medicum UJK, aleja IX Wieków Kielc 19A, 25-317 Kielce
3.3. Form of assessment		Test with grade
3.4. Teaching methods		Case based learning and structured case discussions. Work with medical records, monitor tracings, and imaging Recommendations discussions. Lectures are obligatory.
3.5. Bibliography	**Required reading**	Tintinalli JE. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. 9E, McGraw-Hill Education, 2020, European Resuscitation Council (ERC) Guidelines for Resuscitation (latest editions — ALS/PALS/ERC updates). 2025

		K. Bakes, J. Buchanan, M. Moriera, R. Byyn, P. Pons, Emergency Medicine Secrets Elsevier, 2021
	Further reading	Oxford Handbook of Emergency Medicine, Jonathan P. Wyatt Robert G. Taylor, Kerstin de Wit, Emily J. Hotton. Oxford University Press, 2020

4. Objectives, content and learning outcomes

4.1. Course objectives (taking into account the form of classes)
Lectures (including e-learning)

General objective: *To prepare medical students to recognize life threatening conditions and deliver immediate, evidence based emergency care; to perform basic and selected advanced procedures; to function effectively within a resuscitation and emergency care team.*

Specific objectives:

- Perform rapid patient assessment and prioritize interventions using the ABCDE approach.
- Acquire practical procedural skills required for emergency care (basic and selected advanced airway management, vascular access, defibrillation, oxygen therapy, basic resuscitation).
- Develop communication and teamwork skills in acute settings.

Lectures

- **Knowledge:** Present and explain the organizational principles of emergency departments, triage systems, and the rationale for early management of life-threatening conditions. [K1]
- **Knowledge:** Describe pathophysiology and evidence-based initial management of common acute conditions (acute coronary syndromes, shock states, acute neurological emergencies, severe respiratory failure). [K2]
- **Skills (cognitive / procedural awareness):** Introduce clinical decision pathways and interpretation frameworks for ECG, basic imaging and laboratory results used in emergency diagnostics. [S3]
- **Social competences:** Sensitise students to ethical, legal and communication issues in emergency care (informed consent, confidentiality, communication with relatives). [C1]

Classes (seminars, case discussions, workshops)

- **Knowledge:** Present clinical reasoning steps for differential diagnosis in acute presentations and discuss guideline-based management options. [K1, K2]

- **Skills:** Train students to apply structured assessment (ABCDE), to prioritise interventions and to interpret monitoring data and 12-lead ECGs in small-group, case-based settings. [S1, S3]
- **Skills (procedural planning):** Prepare students to plan and choose appropriate procedural approaches (airway strategy, vascular access, imaging needs) before hands-on practice. [S2]
- **Social competences:** Develop teamwork, role allocation and communication during simulated case discussions; cultivate reflective practice. [C1, C2]

Practical classes (bedside teaching, skills labs, simulation)

- **Skills:** Shape and consolidate hands-on procedural competence: high-quality CPR with AED, bag-valve-mask ventilation, supraglottic airway insertion, basic endotracheal intubation on manikins, peripheral IV cannulation, nasogastric tube and urinary catheter insertion, and needle decompression for tension pneumothorax. [S1, S2]
- **Skills (integration):** Train students to perform rapid, reproducible ABCDE assessments, stabilize patients, and perform initial resuscitation in simulated or clinical settings. [S1, S4]
- **Knowledge:** Reinforce immediate recognition of life-threatening signs and indications for urgent escalation or transfer. [K2]
- **Social competences:** Encourage disclosure of limitations, timely requests for senior help, leadership and followership roles in emergency teams, and respectful communication with patients and relatives under stress. [C1, C2]

4.2. Course content (taking into count the form of classes)

Lectures

- Organization and function of the Emergency Department; triage systems and patient flow. [K1]
- Legal and ethical aspects of emergency medicine; documentation and medico-legal considerations. [C1]
- Basic pathophysiology and early management principles of: shock, respiratory failure, severe sepsis, acute coronary syndromes, and acute neurological emergencies. [K2]
- Principles of resuscitation guidelines and team organization (overview of ALS/PALS/ERC recommendations). [K2, S4]
- Principles of disaster and mass-casualty triage (overview). [K1]

Classes

- ECG interpretation workshops focused on acute coronary syndromes and life-threatening arrhythmias; case-based ECG decision pathways. [S3, K2]

- Short case seminars: chest pain, syncope, acute shortness of breath, altered mental status — diagnostic reasoning and management plans. [K2, S1]
- Toxicology and overdose — approach to diagnosis, antidotes and decontamination strategies (case discussions). [K2]
- Pediatric emergency cases — differences in assessment and resuscitation (age-specific discussion). [K2, S2]
- Imaging and point-of-care ultrasound basics for the ED (principles and interpretation in context). [K2, S2]

Practical classes (skills training, bedside and simulation)

- ABCDE primary survey and structured handover practice; monitoring and GCS assessment. [S1]
- Basic Life Support (BLS) and AED practice for adults and children; team-based CPR drills. [S2, S4]
- Airway management skills: bag-valve-mask ventilation, supraglottic device insertion, basic simulated intubation and airway adjuncts. [S2]
- Vascular access: peripheral IV cannulation, intraosseous access demonstration (if available), blood sampling and emergency drug preparation. [S2]
- Trauma skills: primary and secondary survey, immobilisation techniques, chest decompression (needle thoracostomy) and wound management. [S2]
- Procedure station: nasogastric tube, urinary catheter insertion, lumbar puncture demonstration, and safe fluid and drug administration in emergencies. [S2]
- High-fidelity integrated scenarios: combined medical and trauma simulations with structured debriefing focusing on clinical performance, team communication and decision making. [S4, C1]

4.3. Course learning outcomes

Course learning outcomes (code)	Upon completion of the course, the student	Alignment with programme learning outcomes
	in the area of knowledge:	
W01	knows the most common life-threatening conditions in children and the rules of conduct in these states;	E.W6.
W02	knows and understands the capabilities and limitations of laboratory tests in emergency situations;	E.W41.

W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: a) acute and chronic diseases of the abdominal cavity, b) diseases of the chest, c) diseases of limbs and head, d) bone fractures and injuries of organs;	F.W1.
W04	knows the principles of the integrated state system of medical rescue;	F.W8.
W05	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	F.W10.
W06	knows and understands the causes, symptoms, principles of diagnosis and therapeutic procedures for the most frequent diseases of the central nervous system in terms of: a) a swelling of the brain and its consequences, with particular emphasis on the states of emergency, b) other forms of intracranial narrowness of their consequences, c) cranio-cerebral injuries d) vascular malformations of the central nervous system, e) tumors of the central nervous system, f), diseases of the spine and spinal cord;	F.W13.
W07	knows the problem of surgical transplantation, indications for the transplantation of irreducibly damaged organs and tissues, and related procedures;	F.W14.

in the area of skills:

U01	assesses patient's general condition, consciousness and awareness;	E.U7.
U02	performs differential diagnosis of the most common diseases in adults and children	E.U12.
U03	assesses and describes the somatic and mental state of patients;	E.U13.
U04	recognizes states of a direct threat to life;	E.U14.
U05	recognizes when a patient is under the influence of alcohol, drugs and other addictive products;	E.U15.

U06	plans diagnostic, therapeutic and preventive procedures;	E.U16.
U07	conducts analysis of the potential side effects of each drug and the interaction between them;	E.U17.
U08	qualifies the patient for home treatment and hospitalization;	E.U20.
U09	defines states in which functional status of the patient's or his/her preferences restrict the treatment in accordance with specific guidelines for the disease;	E.U21.
U10	interprets laboratory tests/results and identifies the reasons for deviations;	E.U24.
U11	plans specialist consultations;	E.U32.
U12	acts correctly in the case of injuries (uses dressing or immobilization, stictches the wound);	E.U36.
U13	recognizes the agony of the patient and pronounces him/her dead;	E.U37.
U14	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	F.U1.
U15	complies with the aseptic and antiseptic rules;	F.U3.
U16	manages simple wounds and changes sterile surgical dressing;	F.U4.
U17	assesses radiological test result in terms of the most common types of fractures, especially fractures of long bones;	F.U7.
U18	performs temporary immobilization of a limb, selects the type of immobilization necessary for use in typical clinical situations and checks blood supply to the limbs after using the cast;	F.U8.
U19	manages external bleeding;	F.U9.
U20	performs basic resuscitation with automated external defibrillator and other rescue activities and provides first aid;	F.U10.
U21	acts in accordance with the current algorithm of advanced life support activities;	F.U11.
U22	assesses the condition of the unconscious patient in accordance with applicable international scales;	F.U21.
U23	recognizes the symptoms of increasing intracranial pressure;	F.U22.

in the area of social competences:

K01	establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences;	H.S1.

K02	do what is right for the patient;	H.S2.
K03	respect medical confidentiality and patient's rights;	H.S3.
K04	take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness;	H.S4.
K05	recognize his/her own limitations and self-evaluate educational deficiencies and needs;	H.S5.
K06	promote healthy lifestyle;	H.S6.
K07	use reliable information sources;	H.S7.
K08	conclude on the basis of own surveys and observations;	H.S8.
K09	introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment;	H.S9.
K10	give opinions concerning various aspects of professional activity;	H.S10.
K11	take responsibility for own decisions made during professional activities including own safety and safety of other people;	H.S11.

4.4. Assessment methods for learning outcomes

Assessment method (+/-)

Course learning outcomes (code)	Oral/written/ practical examinaion /other (specify)*	Test*	Project*	In-class activity*	Independent study*	Group work*	Other (specify)*

Type of classes

1: / 2:	L	S	…	L	S	…	L	S	…	L	S	…	L	S	…	L	S	…	L	S	…
W01-W07	*X*										*X*	*X*									
U01-U23	*X*										*X*	*X*									
K01-K11	*X*										*X*	*X*									

Annotation. 1: form of classes; 2: learning outcomes

4.5. Criteria of assessment of the intended learning outcomes

Form of classes	Grade	**Criterion of assessment**
lecture (L)	**3**	61-68% Attends classes, has difficulties in solving the tasks, needs guidance and supervision at work, bases the solution of the task only on the recommended pattern
	3,5	69-76% Attends classes, has difficulties in solving the tasks, needs guidance at work, uses stereotypical approach to solve tasks
	4	77-84% Takes part in classes, demonstrates involvement, solves tasks independently (uses acquired knowledge), adapts accepted patterns to solve tasks
	4,5	85-92% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources
	5	93-100% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources, uses innovative ways of solving tasks
Classes / seminars (C)*	**3**	61-68% Attends classes, has difficulties in solving the tasks, needs guidance and supervision at work, bases the solution of the task only on the recommended pattern
	3,5	69-76% Attends classes, has difficulties in solving the tasks, needs guidance at work, uses stereotypical approach to solve tasks
	4	77-84% Takes part in classes, demonstrates involvement, solves tasks independently (uses acquired knowledge), adapts accepted patterns to solve tasks
	4,5	85-92% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources
	5	93-100% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources, uses innovative ways of solving tasks
Practical classes (Cpr)*	**3**	61-68% Attends classes, has difficulties in solving the tasks, needs guidance and supervision at work, bases the solution of the task only on the recommended pattern
	3,5	69-76% Attends classes, has difficulties in solving the tasks, needs guidance at work, uses stereotypical approach to solve tasks
	4	77-84% Takes part in classes, demonstrates involvement, solves tasks independently (uses acquired knowledge), adapts accepted patterns to solve tasks

	4,5	85-92% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources
	5	93-100% Takes part in classes actively, demonstrates involvement, solves tasks independently. bases the task solution on given information as well as additional sources, uses innovative ways of solving tasks

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	**Student's workload**
	Full-time studies
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	***40***
*Participation in lectures**	15
*Participation in classes, seminars, laboratories**	25
*Preparation in the exam/ final test**	
Others (e-learning)*	
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	***10***
*Preparation for the lecture**	10
*Preparation for the classes, seminars, laboratories**	
*Preparation for the exam/test**	
*Gathering materials for the project/Internet query**	
Preparation of multimedia presentation	
*Others**	
TOTAL NUMBER OF HOURS	***50***
ECTS credits for the course of study	**2**

Accepted for execution *(date and signatures of the teachers running the course in the given academic year)*

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[1] e-learning