Załącznik nr 5 do zarządzenia nr 189/2025

COURSE SPECIFICATION

Course code: 0912-7LEK-C-IM

Course title in Polish: Choroby wewnętrzne -Propedeutyka Interny z Elementami Kardiologii
Course title in English: Internal Medicine-propaedeutics in internal medicine with elements of cardiology

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	dr hab. med. Janusz Sielski, prof. UJK
1.6. Contact	janusz.sielski@ujk.edu.pl

2. Generał characteristics of the course

2.1. Language of instruction	English
2.2. Entry requirements	Knowledge of modules: morphological science and scientific basis of medicine

3. Detailed characteristics of the course

3.1. Type of classes	LECTURE: 15 CLASSES: 15 PRACTICAL CLASSES: 25
3.2. Place of course delivery	Lectures and classes – teaching rooms of the JKU; Practical classes – hospitals, out-patient departments
3.3. Form of assessment	Semesters V Lecture – credit with grade (test) Classes – credit with grade (test) Practical classes – credit (oral and practical skills) Final exam with grade after completing "Internal medicine - clinical teaching and practice" after semester XI (test, oral) Presence during lectures is obligatory
3.4. Teaching methods	Conversational lecture, discussion, a case study in natural condition
3.5.a. Basic reading list	1. Harrison's Principles of Internal Medicine, Vol. 1 & Vol. 2; 22nd Edition. Authors: Longo, Dan; Fauci, Anthony; Jameson, J.; Hauser, Stephen; Kasper, Dennis; Loscalzo, Joseph;
3.5.b. Supplementary reading list	1. Bates' Guide to Physical Examination and History-Taking by Lynn Bickley, Wolters Kluwer Health 2023 2. Podstawy badania klinicznego / Basics and Clinical Examination. Piotr Zaborowski. Medipage 2016 3. ESC clinical practice guidelines published at https://www.escardio.org/Guidelines

4. Objectives, content and learning outcomes

4.1. Course objectives (taking into account the form of classes)

Lectures

- **CO1.** Introduction of students to the specific nature of work in a hospital setting and specialist outpatient clinics; principles of collaboration with other physicians, nursing and allied health professionals, as well as administrative staff.
- **CO2.** Discussion of the physician–patient relationship in the context of internal medicine, with emphasis on the role of patient and family support, and on special circumstances (e.g. legally incapacitated patients).

  Development of professional attitudes:
  - ✓ in physician–patient and physician–therapeutic team relations,
  - ✓ in accordance with medical ethics and professional standards.
- **CO3.** Provision of theoretical knowledge in internal medicine, including cardiology.

  Preparation of the student for:
  - ✓ independent planning of diagnostic procedures and interpretation of results,
  - ✓ conducting differential diagnosis,
  - ✓ planning therapeutic management and anticipating consequences of proposed interventions in both inpatient and outpatient settings.
- **CO4.** Development of practical skills in conducting medical interviews, performing physical examination, recognizing symptomatology of internal diseases, and performing basic diagnostic procedures in compliance with legal regulations, with particular emphasis on cardiology.
- **C05.** Acquisition of competence in assessing indications and contraindications for various stages of diagnostic and therapeutic processes, including knowledge of drug interactions.

Classes

- **CO1.** Training in conducting comprehensive and focused medical interviews with patients and their families in the context of internal medicine.
- **CO2.** Training in proper performance of physical examination.
- **CO3.** Training in accurate interpretation of laboratory tests, imaging, ECG, and other diagnostic findings.
- **CO4.** Development of competence in differential diagnosis of internal diseases.
- **CO5.** Acquisition of skills in planning an optimal diagnostic and therapeutic strategy for internal medicine patients, with consideration of comorbidities and contraindications for specific diagnostic and therapeutic procedures.

- **CO6.** Ability to plan further patient education in the context of secondary prevention, with particular emphasis on cardiovascular diseases.
- **CO7.** Ability to Use and Critically Analyze Artificial Intelligence (AI)

Practical Classes

- **CO1.** Ability to perform and interpret basic diagnostic procedures (ECG, spirometry, urine dipstick tests, arterial blood gas analysis, swabs, measurement of surface and core body temperature, blood pressure measurement).
- **CO2.** Ability to perform peripheral venous cannulation.
- **CO3.** Ability to conduct cardiopulmonary resuscitation, including defibrillation and chest compressions.
- **CO4.** Competence in conducting comprehensive and focused medical interviews with patients and their families in the context of internal medicine.
- **CO5.** Ability to insert a gastric tube

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

YEAR III

Lectures – semester V

1. Symptomatology of Cardiovascular Diseases
2. Symptomatology of Respiratory Diseases
3. Symptomatology of Gastrointestinal Diseases
4. Symptomatology of Renal and Urinary Tract Diseases
5. Symptomatology of Endocrine Disorders and Diabetes Mellitus

Classes – semester V

1. Conducting a focused medical interview.
2. Performing a targeted physical examination in relation to internal medicine conditions.
3. Assessment and description of the somatic status.
4. Planning diagnostic, therapeutic, and preventive management.
5. Measuring pulse rate, arterial blood pressure, and monitoring basic vital signs.
6. Maintaining medical records (with particular emphasis on electronic health records).
7. Performing a standard resting electrocardiogram (ECG) and its interpretation:
    - ✓ Normal ECG recording
    - ✓ Artifacts
    - ✓ Sinus rhythm and its disturbances
    - ✓ Atrioventricular conduction abnormalities: PQ shortening, PQ prolongation
    - ✓ First-, second-, and third-degree atrioventricular block

- ✓ Intraventricular conduction disturbances
- ✓ Supraventricular and ventricular arrhythmias
- ✓ Ischemic and necrotic changes in the ECG pattern
- ✓ ECG features of ventricular hypertrophy and/or overload

8. Administration of medications via intravenous, intramuscular, and subcutaneous routes; peripheral vein cannulation; blood culture collection; arterial blood sampling; collection of arterialized capillary blood.
9. Pericardiocentesis.
10. Performing electrical cardioversion and defibrillation.
11. Recognition of life-threatening emergencies.
12. Recognition of the terminal stage of illness and certification of death.

Practical classes – semester V

1. History taking and physical examination of the cardiovascular system
2. History taking and physical examination of the respiratory system
3. History taking and physical examination of the gastrointestinal system
4. History taking and physical examination of the nervous system
5. Differential diagnosis of dyspnea and edema
6. Acute Coronary Syndrome – NSTEMI
7. Acute Coronary Syndrome – STEMI
8. Left-sided heart failure – pulmonary edema, cardiogenic shock
9. Right-sided heart failure
10. Maintaining medical records (with particular emphasis on electronic health records)

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 knows and understands:	
W01	Principles of pharmacotherapy in patients with renal failure and renal replacement therapy;	E.W7.
W02	The course and symptoms of the aging process, principles of comprehensive geriatric assessment, and interdisciplinary care for the elderly;	E.W9.
W03	Causes, symptoms, principles of diagnosing and therapeutic management in the most common genetically determined diseases in children and adults;	E.W36.
W04	Common life-threatening conditions in children and adults and the principles of management in these states, particularly in: 1. Sepsis; 2. Shock; 3. Hemorrhages; 4. Fluid and electrolyte and acid-base disorders;	F.W10.

	5. Poisonings; 6. Burns, hypothermia, and hyperthermia; 7. Other acute conditions of: a) Cardiovascular origin, b) Respiratory origin, c) Neurological origin, d) Renal origin, e) Oncological and hematological origin, f) Diabetological and endocrinological origin, g) Psychiatric origin, h) Ophthalmological origin, i) Otolaryngological origin, j) Gynecological, obstetrical, and urological origin	

in the area of skills knows how to:

U01	Collect a medical history from an adult, including an elderly person, utilizing skills related to content, process, and perception of communication, considering both biomedical and patient perspectives;	E.U1.
U02	Collect a medical history in a health and life-threatening situation using the SAMPLE scheme (S – Symptoms, A – Allergies, M – Medications, P – Past medical history, L – Last meal, E – Events prior to injury/illness);	E.U3.
U03	Conduct a comprehensive and targeted physical examination of an adult adapted to a specific clinical situation, including: 1. General internal examination; 2. Neurological examination; 3. Gynecological examination; 4. Musculoskeletal system examination; 5. Ophthalmological examination; 6. Otolaryngological (ENT) examination; 7. Geriatric examination;	E.U5.
U04	Recognize the most common symptoms of illness in adults, apply diagnostic tests and interpret their results, conduct differential diagnosis, implement therapy, monitor treatment effects, and assess indications for specialist consultation, especially in cases of symptoms such as: 1. Fever; 2. Weakness; 3. Loss of appetite; 4. Weight loss; 5. Shock; 6. Cardiac arrest; 7. Altered consciousness, including fainting; 8. Swelling; 9. Rash. 10. Cough and expectoration; 11. Hemoptysis; 12. Dyspnea; 13. Nasal and aural discharge; 14. Thoracic pain; 15. Cardiac palpitations; 16. Cyanosis; 17. Nausea and vomiting; 18. Dysphagia; 19. Abdominal pain; 20. Hematochezia; 21. Constipation and diarrhea; 22. Jaundice; 23. Abdominal bloating and resistance; 24. Anemia;	E.U9.

	25. Lymphadenopathy; 26. Urinary retention and incontinence; 27. Hematuria and proteinuria; 28. Menstrual irregularities; 29. Depressed mood and anxiety states; 30. Memory impairment and cognitive dysfunction; 31. Cephalalgia; 32. Vertigo; 33. Paresis; 34. Seizures; 35. Dorsalgia; 36. Arthralgia; 37. Trauma or burn; 38. Dehydration and fluid overload.	
U05		E.U16.
U06	Maintain patient medical records, including electronic formats, in compliance with legal regulations;	E.U18.

in the area of social competences is able to:

K01	Establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences;	K.S1.
K02	Do what is right for the patient;	K.S2.
K03	Respect medical confidentiality and patient's rights;	K.S3.
K04	Take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness;	K.S4.
K05	Recognize his/her own limitations and self-evaluate educational deficiencies and needs;	K.S5
K06	Promote healthy lifestyle;	K.S6.
K07	Use reliable information sources;	K.S7.
K08	Conclude on the basis of own surveys and observations;	K.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;	K.S9.
K10	Give opinions concerning various aspects of professional activity;	K.S10.
K11	Take responsibility for own decisions made during professional activities including own safety and safety of other people.	K.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 Observation

Type of classes

1: / 2:	L	C	PC	L	C	PC	L	C	PC	L	C	PC	L	C	PC	L	C	PC	L	C	PC
W01	+	+											+	+	+						
U01-U24		+			+						+	+	+	+	+			+			

K01-K11					+							+	+	+	+			+			

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

4.5. Assessment criteria for learning outcomes

Type of classes:

LECTURE (L) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	61% -68% correct answers
3,5	69% - 76% correct answers
4,0	77% - 84% correct answers
4,5	85 % -92% correct answers
5,0	93% - 100% correct answers

Type of classes:

CLASSES (C) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	61% -68% correct answers
3,5	69% - 76% correct answers
4,0	77% - 84% correct answers
4,5	85 % -92% correct answers
5,0	93% - 100% correct answers

Type of classes:

PRACTICAL (PC) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	Independently conducts focused patient interviews but requires instructor assistance during physical examinations. Provides an imprecise description of the patient's somatic condition and is able to solve basic diagnostic and therapeutic tasks independently. However, when performing practical skills, requires guidance from the instructor. Demonstrates appropriate ethical conduct in interactions with patients but experiences difficulties in establishing effective relationships within the therapeutic team. The decisions made indicate limited knowledge of legal regulations.
3,5	Independently conducts focused patient interviews and requires only minimal assistance from the instructor during physical examinations. Provides a precise description of the patient's somatic condition and is able to solve basic diagnostic and therapeutic tasks independently, including differentiating between common clinical conditions. However, when performing practical skills, requires guidance from the instructor. Demonstrates appropriate ethical conduct in interactions with patients but experiences difficulties in establishing effective relationships within the therapeutic team. The decisions made indicate gaps in the knowledge of legal regulations.
4,0	Independently conducts focused patient interviews and physical examinations, providing a precise description of the patient's somatic condition. Effectively solves basic diagnostic and therapeutic tasks and is capable of differentiating between common clinical conditions. Performs practical skills independently and demonstrates appropriate ethical conduct in interactions with both patients and medical staff. However, the decisions made indicate gaps in the knowledge of legal regulations.
4,5	Independently conducts focused patient interviews and physical examinations, providing a precise description of the patient's somatic condition. Demonstrates the ability to independently solve both basic and complex diagnostic and therapeutic tasks and is capable of differentiating between various clinical conditions. Performs practical skills independently and

	consistently demonstrates appropriate ethical conduct in interactions with both patients and medical staff. The decisions made confirm a solid understanding of relevant legal regulations.
5,0	Independently conducts focused patient interviews and physical examinations, providing a precise and accurate description of the patient's somatic condition. Demonstrates the ability to independently solve complex and challenging diagnostic and therapeutic tasks and is proficient in differentiating between various clinical conditions. Performs practical skills independently and consistently demonstrates impeccable ethical conduct in interactions with both patients and medical staff. The decisions made confirm a thorough understanding of relevant legal regulations.

5. ECTS credit allocation – student workload

Category	Student workload (full-time mode)	Student workload (part-time mode)
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER (CONTACT HOURS)	**55**	
Participation in lectures*	15	
Participation in seminars/laboratories*	40	
Other (specify) - classes conducted with the use of distance learning methods and techniques*		
INDEPENDENT STUDY (NON-CONTACT HOURS)	**20**	
Preparation for lectures*	10	
Preparation for seminars/laboratories*	10	
Preparation for examination/test*		
Gathering materials for project, online research*		
Preparation of a multimedia presentation*		
Other (specify)*		
TOTAL HOURS	**75**	
ECTS CREDITS for the course	**3**	

*** delete as appropriate**

Approved for implementation (date and legible signatures of course instructors in the given academic year):

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