

SYLLABUS / COURSE CARD - Part 1

General Course Information			
1. Major of study: Medicine, Nursing 2. Study profile: general academic	3. Study level: Master's degree programme 4. Form of study: intramural 5. Study cycle: 2026-2028		
6. Year: I	7. Semester: II		
8. Course name: Modern diagnostic techniques			
9. Course status: required			
10. Course contents and assigned learning outcomes: Modern imaging techniques. The role of a health professionals in a diagnostic unit. Practical skills related to activities in a diagnostic unit. Learning Outcomes / Reference to Learning Outcomes Included in: Educational Standards (Regulation of the Minister of Science and Higher Education) Knowledge – the student knows and understands: B.W10; B.W13; B.W15; B.W18; B.W19; B.W26 Skills – the student is able to: B.U9; B.U13; B.U14 Social Competences – the student is ready to: 1. Critically evaluate their own actions and those of co-workers while respecting worldview and cultural differences 2. Formulate opinions concerning various aspects of professional activity and seek expert advice when unable to solve problems independently 3. Demonstrate care for the prestige of the nursing profession and professional solidarity 4. Resolve complex ethical problems related to the nursing profession and set priorities in task implementation 5. Take responsibility for provided healthcare services 6. Demonstrate a professional approach toward marketing strategies of the pharmaceutical industry and advertising of its products			
11. Number of hours for the course (contact/including communication hours*/self-study*)	28	12. Number of ECTS points for the course	1
13. Form of Course Completion: graded pass			
14. Methods of Verification and Assessment of Learning Outcomes			
Learning outcomes	Methods of verification	Methods of evaluation*	
Knowledge	Written test (open-ended questions) and oral assessment covering course topics	*	
Skills	Observation of practical skills during practical classes	*	
Social Competences	Observation	*	

* For exams and grade credits the following evaluation system has been assumed:

Very good (5.0) – learning outcomes achieved and significantly exceed the required level

More than good (4.5) – learning outcomes achieved and slightly exceed the required level

Good (4.0) – learning outcomes achieved at the required level

Fairly good (3.5) – learning outcomes achieved at an average required level

Satisfactory (3.0) – learning outcomes achieved at the minimum required level

Unsatisfactory (2.0) – learning outcomes not achieved

Course description

Part 2

Additional Course Information		
15. Name of Department, Address, Email: Chair and Department of Cardiology Faculty of Health Sciences in Katowice Medical University of Silesia in Katowice Ziołowa 45/47 str. Katowice-Ochojec Tel.: +48 (32) 252 74 07 E-mail: gcm-kk2@sum.edu.pl Secretariat: amanka@sum.edu.pl Website: http://klinkardwnoz.sum.edu.pl		
16. Course Coordinator: Prof. Grzegorz Smolka, MD, PhD		
17. Prerequisites for knowledge, skills and other competencies: Knowledge of human anatomy at the secondary school level.		
18. Number of students in groups	In accordance with the Rector's Ordinance of the Medical University of Silesia	
19. Study materials	Notice board of the Department and Clinic of Cardiology (4th floor, GCM), website, SUM e-learning platform, literature available in the library	
20. Location of Classes	According to the schedule sent by the Dean's Office of the Faculty of Health Sciences in Katowice; Department and Clinic of Cardiology (4th floor, GCM, Katowice-Ochojec).	
21. Consultation Place and Time	Department and Clinic of Cardiology, 40-635 Katowice, ul. Ziołowa 45/47, according to detailed information posted on the notice board and website of the Department	
22. Learning outcomes		
Number of the course learning outcome	Course learning outcomes	Reference to learning outcomes included in the standards
	In terms of knowledge, the graduate knows and understands:	
C_K01	methods of assessing a patient's health status in health professional counseling	B.W10
C_K02	scope of prevention of infectious, social, and civilization diseases	B.W13
C_K03	responsibilities of a healthcare services coordinator in selected types of services	B.W15
C_K04	principles of diagnostic and therapeutic management and care of patients with heart failure, cardiac arrhythmias, and hypertension, as well as modern technologies used in therapy and monitoring of patients with cardiovascular diseases	B.W18
C_K05	pathomechanism, symptoms, diagnostics, treatment, and nursing management in respiratory failure, COPD, and allergic diseases in inpatient and home care settings	B.W19
C_K06	causes and principles of diagnostic and therapeutic management and care of patients with organ failure	B.W26

	In terms of skills, the graduate shall be able to:	
C_S01	diagnose health risks in a patient with a chronic disease	B.U9
C_S02	use technological resources for health counseling purposes	B.U13
C_S03	select and apply methods of assessing a patient's health status when providing nursing advice	B.U14
23. Traditional teaching methods, expository methods (lectures, bibliography work), Activating methods (discussions, brainstorming, situational methods, role-playing, and engagement-supporting methods), Practical methods (practical and clinical sessions).		
24. Forms and topics of classes:**		Number of hours
24.1. Lectures		8
Computed Tomography: demonstration, patient qualification, basics of interpretation		3
Magnetic Resonance Imaging: demonstration, safety principles, patient preparation		3
Coronary angiography: demonstration of examinations and interventional cardiology procedures		2
24.2. Seminars		5
Imaging techniques: CT and MRI – indications and preparation		3
Diagnostic techniques using ultrasonography		2
24.3. Exercises		-
-		-
24.4. Clinical Exercises		-
-		-
24.5 Practical classes		15
Ultrasonography: demonstration, patient preparation		3
Echocardiography: demonstration, patient preparation		3
Magnetic Resonance Imaging: discussion of principles, safety rules, patient preparation		3
Computed Tomography: discussion of principles, safety rules, interpretation		3
Coronary angiography: demonstration of examinations and interventional cardiology procedures. Patient safety and invasive procedures.		3
24.6 Low fidelity simulations		-
-		-
24.7 High fidelity simulations		-
-		-
24.8 Self-study *		-
-		-
25. Balance of ECTS points:**		
Class hours according to the schedule with the teacher (contact)		28
Preparation for various forms of classes		-
Participation in consultations		-
Time for project/documentation/self-education		-
Self-education*		-
Preparation for the exam		-
Participation in the exam		-
Practical Classes		-
Professional internships		-
TOTAL HOURS		28
TOTAL NUMBER OF ECTS POINTS		1
26. Literature		

27. Assessment Criteria – Details

In accordance with recommendations of supervising authorities.

Course completion – the student has achieved the intended learning outcomes.

Detailed criteria for course completion and grading are included in the course regulations.