

Course description

Part 1

General information about the course		
1. Major of study: physiotherapy	2. Study level: unified MSc	
	3. Form of study: intramural	
4. Year: II, III/ cycle 2021-2026	5. Semester: IV, V, VI	
6. Course name: Physiotherapy in internal diseases in cardiology and cardiosurgery		
7. Course status: required		
8. Course contents and assigned learning outcomes		
Basics of cardiovascular anatomy and physiology.		
To familiarize students with the principles, goals, methods and effects of rehabilitation of patients with cardiovascular disease.		
To acquaint students with various physiotherapeutic methods used in the rehabilitation of patients with cardiovascular disease.		
To familiarize students with the selection and justification for the use of selected techniques in specific cardiovascular diseases, depending on the patient's health and age.		
Learning outcomes / reference to learning outcomes indicated in the standards		
For knowledge – student knows and understands: : DW3, DW4, DW6, DW7, DW8		
For skills student can do: DU28, DU29, DU30, DU31, DU32, DU47		
For social competencies student is ready to: presenting an attitude promoting a healthy lifestyle, promoting and being active creating a healthy lifestyle and health promotion during related activities practicing the profession and determining the level of fitness necessary to practice the profession of physiotherapist		
9. Number of hours for the course		68
10. Number of ECTS points for the course		4
11. Methods of verification and evaluation of learning outcomes		
Learning outcomes	Methods of verification	Methods of evaluation*
Knowledge	Written exam	*
Skills	Observation acquired by the student skills during practical classes, verification of correctness perform procedures physiotherapy	*
Competencies	Observation acquired by the student skills during practical classes	*

* The following evaluation system has been assumed:

Very good (5,0) – the assumed learning outcomes have been achieved and significantly exceed the required level

Better than good (4,5) – the assumed learning outcomes have been achieved and slightly exceed the required level

Good (4,0) – the assumed learning outcomes have been achieved at the required level

Better than satisfactory (3,5) – the assumed learning outcomes have been achieved at the average required level

Satisfactory (3,0) – the assumed learning outcomes have been achieved at the minimum required level

Unsatisfactory (2,0) – the assumed learning outcomes have not been achieved

Course description

Part 2

Other useful information about the course		
12. Name of Department, mailing address, e-mail: Department of Rehabilitation, Faculty of Health Science in Katowice, Medical University of Silesia in Katowice, Ziołowa street 45/47 40-635 Katowice. Phone number (32) 252 43 70 / dolko@sum.edu.pl		
13. Name of the course coordinator: Katarzyna Gwizdek MSc, PT kgwizdek@sum.edu.pl		
14. Prerequisites for knowledge, skills and other competencies: Basics of cardiovascular anatomy and physiology.		
15. Number of students in groups	In accordance with the Senate Resolution	
16. Study materials	Medical clothing, stethoscope, sphygmomanometer	
17. Location of classes	Department of Rehabilitation, Faculty of Health Science in Katowice, Medical University of Silesia in Katowice, Ziołowa street 45/47 40-635 Katowice	
18. Location and time for contact hours	Department of Rehabilitation, Faculty of Health Science in Katowice, Medical University of Silesia in Katowice, Ziołowa street 45/47 40-635 Katowice, fixed hours according to the report available at the Cathedral's secretariat.	
19. Learning outcomes		
Number of the course learning outcome	Course learning outcomes	Reference to learning outcomes indicated in the standards
C_K01	The student knows etiology, pathomechanism, manifestations and the course of the most prevalent diseases in the area of: cardiology and cardiosugery, pulmonology, surgery, gynaecology and obstetrics, geriatrics, psychiatry, intensive medical care, oncology and palliative medicine at the scope ensuring rational use of physiotherapies	DW3
C_K02	The student knows principles of diagnostics and general rules and management methods in the most prevalent diseases in the area of: cardiology and cardiosurgery, pulmonology, surgery. gynecology and obstetrics, geriatrics, psychiatry, intensive medical care, oncology and palliative medical care at the scope ensuring rational use of physiotherapies.	DW4
C_K03	The student knows general principles of physical examination and history taking in cardiology, neurology, orthopaedics, and geriatrics.	DW6
C_K04	The student knows rules for interpretation of supplementary investigations in diagnostics of circulatory diseases and in cardiological physiotherapy, including: ECG, function tests, clinical	DW7

	assessment of the patient's condition in cardiological diseases applying different schemes for the safe use of physiotherapeutic methods.	
C_K05	The student results of stress tests in cardiological and pulmonological physiotherapy (bicycle ergometer, treadmill, march tests, spirometry), the NYHA (New York Heart Association) heart failure scale and values of the metabolic equivalent MET.	DW8
C_S01	The student carry out the basic functional measurements and tests, observing the safety rules, including the heart rate measurement, the BP, the march test the get up and go test, treadmill test following Bruce protocol and the modified Naughton's protocol as well as the cycloergometer effort test.	DU28
C_S02	The student plan, select depending on the patient's clinical and functional condition and carry out the physiotherapeutic procedures in patients with heart insufficiency, ischaemic heart failure, hypertension, after myocardial infarction, with heart rate disorders and acquired heart failures.	DU29
C_S03	The student plan, select depending on the patient's clinical and functional condition and carry out the physiotherapeutic procedures in patients qualified for heart surgery, after cardiosurgical operations, with heart pacemakers and following intervention cardiological procedures.	DU30
C_S04	The student instruct the patient about respiratory exercise and relaxation techniques in cardiological physiotherapy.	DU31
C_S05	The student instruct the patient with circulatory conditions about the physical exercise at home and physical activity as the form of secondary prevention.	DU32
C_S06	The student apply the principles of good communication with the patient and communicate with other members of the therapeutic team.	DU47

20. Forms and topics of classes		Number of hours
20.1. Lectures		28
Indications and contraindications for physiotherapy in cardiology and cardiac surgery.		7
Stages of rehabilitation treatment in cardiology and cardiac surgery.		9
Rehabilitation methods in cardiology and cardiac surgery. Current guidelines - literature review.		12
20.2. Seminars		5
Objectives and conditions of effective cardiac rehabilitation, qualification criteria as well as models and stages of cardiac rehabilitation.		2
Physical capacity and physical training and its impact on the body with particular emphasis on cardiologic patients. Safety conditions when conducting stress tests and during physical training.		3
20.3. Practical classes		35
In-hospital and post-hospital rehabilitation and secondary prevention. Functional qualification rules for particular rehabilitation models. Safety conditions during stress tests and during physical training.		8
Rehabilitation of the lying patient - deepened breathing and breathing exercises, isometric and dynamic exercises of small muscle groups, loosening exercises.		9
Seated patient rehabilitation - self-service, deepened breathing and breathing exercises, isometric and dynamic exercises of larger muscle groups, dynamic coordination exercises,		9

loosening exercises.	
Exercises in standing position and walking, dosing the march, attempts to walk up the stairs and fully run the patient.	9
20.4 Without a teacher	32
Learning to communicate effectively with the patient.	7
Educating the patient about behaviors in subsequent stages of cardiac surgery rehabilitation.	15
Educating the patient on healthy behavior.	10
24. Readings	
<ol style="list-style-type: none"> 1. Bromboszcz Jacek, Dylewicz Piotr(red.): „Rehabilitacja Kardiologiczna. Stosowanie ćwiczeń fizycznych.” ELIPSA-JAIM, Kraków 2005. 2. Maciej A. Karolczak: „Wykłady o serce i kardiochirurgii wad wrodzonych”. Czelej. Lublin 2008 3. Kuch Macej, Janiszewski Marek, Mamcarz Artur: „Rehabilitacja kardiologiczna”. Medical Education. Warszawa 2014 4. Roślowski Adam:” Wytyczne fizjoterapii kardiologicznej: pytania i odpowiedzi.”AWF Wrocław 2001. 	
25. Detail evaluation criteria	
<p>In accordance with the recommendations of the inspection bodies</p> <p>Completion of the course – student has achieved the assumed learning outcomes</p> <p>Detail criteria for completion and evaluation of the course are specified in the course regulations</p>	