



Syllabus for academic year: 2021/2022 Training cycle: 2018/2019 – 2023/2024													
Description of the course													
Course	Rehabilitation										Group of detailed education results		
											Group code E	Group name non-interventional clinical sciences,	
Faculty	Faculty of Medicine												
Major	medicine												
Level of studies	<input checked="" type="checkbox"/> uniform magister studies <input type="checkbox"/> 1 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies												
Form of studies	<input checked="" type="checkbox"/> full-time <input type="checkbox"/> part-time												
Year of studies	IV						Semester:		<input type="checkbox"/> winter <input checked="" type="checkbox"/> summer				
Type of course	<input checked="" type="checkbox"/> obligatory <input type="checkbox"/> limited choice <input type="checkbox"/> free choice / optional												
Language of study	<input type="checkbox"/> Polish <input checked="" type="checkbox"/> English												
Number of hours													
Form of education													
	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester:													
(Dep. in charge of the course)													
Direct (contact) education ¹													
Distance learning ²													
Summer semester:													
Department of Rehabilitation													
Direct (contact) education		5		20									
Distance learning	5												

¹ Education conducted with direct participation of university teachers or other academics

² Education with applied methods and techniques for distance learning



TOTAL per year:												
Department of Rehabilitation (Dep. in charge of the course)												
Direct (contact) education		5		20								
Distance learning	5											
Educational objectives (max. 6 items)												
C1. Functional assessment of person with disabilities.												
C2. Knowledge of the basics of physiotherapy; indications and contraindications to their implementation.												
C3. Knowledge of the physiology and pathology of physical exertion and its influence on musculoskeletal system, cardiovascular system, respiratory system and nervous system.												
C4. Physical modalities in pain management.												
C5. Principles of formulating a complex rehabilitation program in specific dysfunctions.												
C6. Development social competences needed to practice the medical profession, in accordance with graduate's profile.												
Education result for course in relation to verification methods of the intended education result and the type of class:												
Number of detailed education result	Student who completes the course knows/is able to				Methods of verification of intended education results				Form of didactic class <i>*enter the abbreviation</i>			
E.W7	knows and understands the causes, symptoms, diagnosis and therapeutic proceedings of the most common internal diseases occurring in adults, and their complications: a) cardiovascular diseases, including coronary heart disease, heart defects, diseases, endocarditis, pericarditis, myocarditis, heart failure, hypertension: primary and secondary, pulmonary hypertension, b) respiratory diseases, including chronic obstructive pulmonary disease, asthma, cystic fibrosis, interstitial lung diseases, infections of the respiratory system, obstructive and central sleep apnea, respiratory failure (acute and chronic), cancers of the respiratory system, c) rheumatic diseases, including systemic diseases of connective tissue: systemic vascular inflammations, inflammations of the joints of the spine, metabolic diseases, particular in osteoporosis and osteoarthritis, gout, d) allergic diseases, including: anaphylaxis and angioedema,				presentation, oral response, colloquium				L, SE, CC			
E.W9.	understands the causes of the most common diseases and knows their basic differences occurring in the elderly and knows the procedure in basic geriatric syndroms				presentation, oral response, colloquium				L, SE, CC			



E.W13	know and distinguish the symptoms of basic neurological syndroms;	presentation, oral response, colloquium	L, SE, CC
E.W14	know and understand the causes, symptoms, diagnosis and therapeutic proceedings in the most common diseases of the nervous system 1. headaches: migraine, tension-type headache and headache syndromes and V. nerve neuralgia 2. cerebrovascular diseases, in particular stroke 3. epilepsy 4. infections of the nervous system, in particular meningitis, Lyme disease, herpes encephalitis, neurotransmission diseases 5. dementias, in particular Alzheimer's disease, frontal dementia, vascular dementia and other dementing syndromes, 6. diseases of the basal nuclei, in particular Parkinson's disease 7. demyelinating diseases, in particular multiple sclerosis 8. neuromuscular diseases, in particular sclerosis lateral sclerosis and sciatica, 9. craniocerebral trauma, in particular concussion;	presentation, oral response, colloquium	L, SE, CC
E.W30	knows and understands the concept of disability and impairment;	presentation, oral response, colloquium	L, SE, CC
E.W31	knows the role and the methods used in medical rehabilitation;	presentation, oral response, colloquium	L, SE, CC
E.U1.	interviews the adult patient	presentation, oral response, colloquium	SE, CC
E.U2.	interviews the pediatric patient and his family	presentation, oral response, colloquium	SE, CC
E.U3.	performs the physical examination of the adult patient	presentation, oral response, colloquium	SE, CC
E.U4	performs a physical examination of the child at any age;	presentation, oral response, colloquium	SE, CC
E.U7.	evaluates the general condition, consciousness and awareness of the patient,;	presentation, oral response, colloquium	SE, CC
E.U12	performs differential diagnosis the most common diseases of adults and children	presentation, oral response, colloquium	SE, CC
E.U13	assesses and describes the patient's somatic and	presentation,	SE, CC



	psychological condition	oral response, colloquium	
E.U16	plans diagnostic, therapeutic and preventive actions	presentation, oral response, colloquium	SE, CC
E.U20.	Qualifies patients for in- or outpatient treatment;	presentation, oral response, colloquium	SE, CC
E.U22.	assess functional disabled person	presentation, oral response, colloquium	L, SE, CC
E.U23.	formulates the rehabilitation program in most common diseases	presentation, oral response, colloquium	L, SE, CC
E.U38.	keep a record of the medical patient	presentation, oral response, colloquium	SE, CC

* L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP- vocational practice; DSS- directed self-study; EL- E-learning

Student's amount of work (balance of ECTS points):

Student's workload (class participation, activity, preparation, etc.)	Student Workload
1. Number of hours of direct contact:	25
2. Number of hours of distance learning:	5
3. Number of hours of student's own work:	11,5
4. Number of hours of directed self-study	n/a
Total student's workload	41,5
ECTS points for course	1

Content of classes: (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

Lectures

1. – 2,5 h:
 - Theory of the rehabilitation
 - Modern definition of rehabilitation
 - Polish conception of rehabilitation
 - Rehabilitation team
 - Organisation of rehabilitation in Poland
 - Physiological basis of physiotherapy
 - Factors influencing efficacy and factors interfering with development of rehabilitation
 - Modalities in rehabilitation
 - Rehabilitation and prophylaxis of disability
2. – 2,5 h
 - physiotherapy with its specificity and rules:
 - orthopedics and traumatology
 - rheumatology
 - neurology
 - cardiovascular diseases
 - pulmonology
 - pediatrics
 - geriatrics
 - psychiatry



- obstetrics and gynecology

Seminars

1. Physical therapy (seminars) -3h

- Definition and concept of physical therapy in rehabilitation
- Physical forces used in rehabilitation and application techniques
- Tissue response to physical forces
- Administration of physical modalities
- General rudiments of use thermal-, light-, electro-, hydro- therapy and massage
- Outcome measures and clinical governance
- Physical therapy in pain management Thermal Modalities

2. Rehabilitation in respiratory tract diseases (seminars) -2h

- Functional assessment of respiratory tract (spirometry, spirometry, gasometry)
- Conditions with predominant oxygenation impairment and with predominant ventilatory impairment
- rehabilitation methods (postural drainage, breathing retraining, improving the cough mechanism, ventilatory muscle training)
- rehabilitation in emphysema, bronchiectasis, cystic fibrosis, chronic obstructive pulmonary disease
- rehabilitation after lung surgery
- the integrative cardiorespiratory exercise test education

Practical classes

1. Rehabilitation in orthopedic surgery and traumatology – 8h

- complementary procedures in orthopedics, traumatology and rheumatology (traction, redressing, casting)
- adapting rehabilitation methods in different musculoskeletal disorders and after musculoskeletal injuries
- rehabilitation methods in rheumatology
- Rehabilitation in osteoarthritis, spinal disorders and after sport injuries
- functional assessment of movement apparatus
- principles of formulating the rehabilitation program
- prevention of bed rest complications
- rehabilitation after orthopedic procedures

2. Cardiac rehabilitation: (classes) -4h

- functional assessment of the cardiovascular system (indications and contraindications for functional assessment, types and of exercise treadmill tests, safety and performance guidelines for clinical exercise stress testing, work load and test technique/ protocols of the treadmill test, interpretation and understanding the results of the stress test),
- principles of primary and secondary prevention of cardiovascular diseases,
- principles of the modern treatment of patients with coronary artery disease, hypertension and after cardiac surgery

3. Rehabilitation in vascular and metabolic diseases: (classes) -4h

- assessment of indications and contraindications and selection of appropriate physiotherapy methods in rehabilitation of patients with peripheral circulatory dysfunctions (ischaemia, disease of the lymphatic and venous system); on the basis of patients history, physical examination as well as physical tests



- prophylaxis of deep vein thrombosis and pulmonary embolism
- assessment of the diabetes metabolic control and its complications in the context of planning physiotherapy
- preparation of patients with diabetes for kinesiotherapy; regulations for the safety of patients in the kinesiotherapy program
- the role of kinesiotherapy in the prevention of carbohydrates disturbances and treatment of obesity

4. Rehabilitation in neurology (classes) -4h. Rehabilitation in neurology (classes) -4h

- functional examination
- rules of physiotherapeutic interventions in patients with upper and lower motor neuron disorders
- the selection of combined anti-pain therapy (post-operative, pharmacological and physiotherapeutic)
- physiotherapy of patients with chronic diseases, locomotion and self-service activities, the selection of orthopedic devices to increase the functional efficiency of the patient
- use of modern methods in neurological rehabilitation (PNF, NDT Bobath, Vojta method),

Basic literature

1. Rehabilitation for medical students. Wrzosek Z., Bolanowski J. Sutkowska E. , *Wrocław Medical University, 2011*
2. Physical Medicine and Rehabilitation: Principles and Practice DeLisa JA, Gans BM, Walsh NE, *Lippincott Williams & Wilkins, 2005*
3. Practical Evidence-based Physiotherapy E-Book, 2nd Edition, Herbert R, Jamtyedt G, Hagen KB, Mead J, *Elsevier 2012*

Additional literature and other materials

1. Advances in Rehabilitation. AWF Warszawa
2. Archives of Physical Medicine and Rehabilitation. *ACRM (American Congress of Rehabilitation Medicine)*
3. PM&R *Elsevier*

Preliminary conditions:

Finished courses : at least 1st semester of "Internal medicine" and "Orthopedic and Traumatology" , general knowledge of human anatomy and physiology

Conditions to receive credit for the course:

Obligatory presence on all lectures, exercises and seminars. Positive test's result.

Each absence must be made up, including rector's days or dean's hours.

A graded credit is given in direct contact with the teacher. In justified cases, by the Rector's decision, it may take place in a remote form.

Grade:	Criteria for courses ending with a grade³
Very Good (5.0)	above 90% of maximum test result
Good Above (4.5)	above 80% of maximum test result
Good (4.0)	above 70% of maximum test result

³ The verification must cover all education results, which are realize in all form of classes within the course



Satisfactory Plus (3.5)	above 60% of maximum test result
Satisfactory (3.0)	above 50% of maximum test result

Department in charge of the course:	Department of Rehabilitation
Department address:	ul. Borowska 213, 50-556 Wrocław
Telephone:	071 734 32 20, faks: 071 734 32 09
E-Mail:	dorota.kwiatkowska@umed.wroc.pl , michal.sokolowski@umed.wroc.pl

Person in charge for the course:	Dr hab. Edyta Sutkowska
Telephone:	71 734 32 20
E-Mail:	edyta.sutkowska@umed.wroc.pl

List of persons conducting specific classes:

Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Edyta Sutkowska	dr hab. n. med.	Medical sciences	doctor, physiotherapist	lectures, classes, seminars
Iwona Demczyszak	dr n. k. fiz.	Medical sciences	physiotherapist	classes, seminars
Justyna Mazurek	dr n. k. fiz.	Medical sciences	doctor, physiotherapist	classes, seminars
Natalia Kuciel	dr n. med.	Medical sciences	physiotherapist	classes, seminars
Katarzyna Hap	dr n. med.	Medical sciences	physiotherapist	classes, seminars
Karolina Biernat	dr n. o zdr.	Medical sciences	physiotherapist	classes, seminars
Michał Sokółowski	dr n. med.	Medical sciences	doctor, physiotherapist	classes, seminars

Date of Syllabus development

30.06.2021

Syllabus developed by

SOKOŁOWSKI MICHAŁ

Signature of Head(s) of teaching unit(s)

[Signature]

Dean's signature

Wrocław Medical University
Faculty of Medicine
Vice-Dean for Health Studies

[Signature]
prof. Beata Szumowska, PhD

