





TOTAL per year:													
Department of Rehabilitation	5	5		20									
Educational objectives (max. 6 items)													
<p><b>C1. Functional assessment of person with disabilities.</b></p> <p><b>C2. Knowledge of the basics of physiotherapy; indications and contraindications to their implementation.</b></p> <p><b>C3. Knowledge of the physiology and pathology of physical exertion and its influence on musculoskeletal system, cardiovascular system, respiratory system and nervous system.</b></p> <p><b>C4. Physical modalities in pain management.</b></p> <p><b>C5. Principles of formulating a complex rehabilitation program in specific dysfunctions.</b></p> <p><b>C6. Rules of orthopedic devices selection.</b></p>													
Education result matrix for module/course in relation to verification methods of the intended education result and the type of class													
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>									
W1	E.W30	knows and understands the concept of disability and impairment;	presentation, oral response, colloquium	L, SE, CC									
W2	E.W31	knows the role and the methods used in medical rehabilitation;	presentation, oral response, colloquium	L, SE, CC									
U1	E.U22.	assess functional disabled person	presentation, oral response, colloquium	L, SE, CC									
U2	E.U23.	formulates the rehabilitation program in most common diseases	presentation, oral response, colloquium	L, SE, CC									
W3	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,	presentation, oral response, colloquium	L, SE, CC									



		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; h) allergic diseases, including: anaphylaxis and angioedema,		
W4	E.W8.	knows and understands the process and the signs of the aging process, as well as the principle of an overall assessment and interdisciplinary geriatric care of the elderly patient	presentation, oral response, colloquium	L, SE, CC
W5	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
W6	E.W11.	knows and understands the risks associated with hospitalization of elderly people;	presentation, oral response, colloquium	L, SE, CC
W7	E.W13	know and distinguish the symptoms of basic neurological syndroms;	presentation, oral response, colloquium	L, SE, CC
W8	E.W14	know and understand the causes, symptoms, diagnosis and therapeutic proceedings in the most common diseases of the nervous system a) vascular diseases of the brain, stroke, b) dementia, Alzheimer disease, vascular and frontal dementia, , c) diseases of the basal ganglia, Parkinson's disease, d) demyelinating diseases multiple sclerosis, e) neuro-muscular diseases – amyotrophic lateral sclerosis, sciatic neuralgia, f) cranio-cerebral trauma, in particular concussion	presentation, oral response, colloquium	L, SE, CC
W9	F.W1	know and understand the causes, symptoms, diagnosis and principles for therapeutic treatment of the most common diseases requiring surgical intervention, taking into account the distinctiveness of childhood a) limb disorders b) bone fractures and injuries of organs;	presentation, oral response, colloquium	L, SE, CC
W10	F.W2.	knows selected issues of Pediatric Surgery, including Traumatology, inherited defects and acquired disease that are an indication for surgical treatment	presentation, oral response, colloquium	L, SE, CC
U3	E.U1.	interviews the adult patient	presentation, oral response, colloquium	L, SE, CC
U4	E.U2.	interviews the pediatric patient and his family	presentation, oral response, colloquium	L, SE, CC



U5	E.U3.	performs the physical examination of the adult patient	presentation, oral response, colloquium	L, SE, CC
U6	E.U4	performs a physical examination of the child at any age;	presentation, oral response, colloquium	L, SE, CC
U7	E.U7.	evaluates the general condition, consciousness and awareness of the patient,;	presentation, oral response, colloquium	L, SE, CC
U8	E.U12	performs differential diagnosis the most common diseases of adults and children	presentation, oral response, colloquium	L, SE, CC
U9	E.U13	assesses and describes the patient's somatic and psychological condition	presentation, oral response, colloquium	L, SE, CC
U10	E.U16	plans diagnostic, therapeutic and preventive actions	presentation, oral response, colloquium	L, SE, CC
U11	E.U20.	Qualifies patients for in- or outpatient treatment;	presentation, oral response, colloquium	L, SE, CC
U12	E.U21.	defines the conditions in which time life expectancy, functional status or patient preferences limit further procedures in accordance with the guidelines for the disease;	presentation, oral response, colloquium	L, SE, CC
U13	E.U32	Plans consultations	presentation, oral response, colloquium	L, SE, CC
U14	E.U38.	keep a record of the medical patient	presentation, oral response, colloquium	L, SE, CC

\*\* L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .

Please mark on scale 1-5 how the above effects place your classes in the following categories:

communication of knowledge, skills or forming attitudes:

Knowledge (K): 5

Skills (S):4

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

Student's workload

(class participation, activity, preparation, etc.)

Student Workload (h)

1. Contact hours:

30



2. Student's own work (self-study):	11,5
Total student's workload	41,5
ECTS points for module/course	1
Comments	
<b>Content of classes</b> (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)	
<b>Lectures</b>  1. – 2,5 h: <ul style="list-style-type: none"><li>- Theory of the rehabilitation</li><li>- Modern definition of rehabilitation</li><li>- Polish conception of rehabilitation</li><li>- Rehabilitation team</li><li>- Organisation of rehabilitation in Poland</li><li>- Physiological basis of physiotherapy</li><li>- Factors influencing efficacy and factors interfering with development of rehabilitation</li><li>- Modalities in rehabilitation</li><li>- Rehabilitation and prophylaxis of disability</li></ul> 2. – 2,5 h <ul style="list-style-type: none"><li>- physiotherapy with its specificity and rules:</li><li>- orthopedics and traumatology</li><li>- rheumatology</li><li>- neurology</li><li>- cardiovascular diseases</li><li>- pulmonology</li><li>- pediatrics</li><li>- geriatrics</li><li>- psychiatry</li><li>- obstetrics and gynecology</li></ul>	
<b>Seminars</b> 1. Physical therapy (seminars) -3h <ul style="list-style-type: none"><li>- Definition and concept of physical therapy in rehabilitation</li><li>- Physical forces used in rehabilitation and application techniques</li><li>- Tissue response to physical forces</li><li>- Administration of physical modalities</li><li>- General rudiments of use thermal-, light-, electro-, hydro- therapy and massage</li><li>- Outcome measures and clinical governance</li><li>- Physical therapy in pain management Thermal Modalities</li></ul> 2. Rehabilitation in respiratory tract diseases (seminars) -2h <ul style="list-style-type: none"><li>- Functional assessment of respiratory tract (spirometry, spirometry, gasometry)</li><li>- Conditions with predominant oxygenation impairment and with predominant ventilatory impairment</li><li>- rehabilitation methods (postural drainage, breathing retraining, improving the cough mechanism, ventilatory muscle training)</li><li>- rehabilitation in emphysema, bronchiectasis, cystic fibrosis, chronic obstructive pulmonary disease</li><li>- rehabilitation after lung surgery</li></ul>	

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),



<p>Basic literature (list according to importance, no more than 3 items)</p> <ol style="list-style-type: none"> <li>1. Rehabilitation for medical students. Wrzosek Z., Bolanowski J. Sutkowska E. , <i>Wrocław Medical University, 2011</i></li> <li>2. Physical Medicine and Rehabilitation: Principles and Practice DeLisa JA, Gans BM, Walsh NE, <i>Lippincott Williams &amp; Wilkins, 2005</i></li> <li>3. Practical Evidence-based Physiotherapy E-Book, 2nd Edition, Herbert R, Jamtyedt G, Hagen KB, Mead J, <i>Elsevier</i></li> </ol> <p>Additional literature and other materials (no more than 3 items)</p> <ol style="list-style-type: none"> <li>1. Advances in Rehabilitation. AWF Warszawa</li> <li>2. Archives of Physical Medicine and Rehabilitation. <i>ACRM (American Congress of Rehabilitation Medicine)</i></li> <li>3. PM&amp;R <i>Elsevier</i></li> </ol>	
<p>Didactic resources requirements (e.g. laboratory, multimedia projector, other...) multimedia projector, laptop, TPI device, PUP device, treadmill, measure tape, BIODEX, gym hall, Doppler device</p>	
<p>Preliminary conditions (minimum requirements to be met by the student before starting the module/course)</p> <p>Finished courses : "Internal medicine" and "Orthopedic and Traumatology" , general knowledge of human anatomy and physiology 4<sup>th</sup> year graduation.</p>	
<p>Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)</p> <p>Obligatory presence on all exercises and seminars. Positive test's result.</p> <p>Each absence must be made up, including rector's days or dean's hours.</p>	
<b>Grade:</b>	<b>Criteria</b> (only for courses/modules ending with an examination)
Very Good (5.0)	above 90% of maximum test result
Good Plus (4.5)	above 80% of maximum test result
Good (4.0)	above 70% of maximum test result
Satisfactory Plus (3.5)	above 60% of maximum test result
Satisfactory (3.0)	above 50% of maximum test result

**Name and address of module/course teaching unit, contact: telephone and e-mail address**

Department of Rehabilitation / Katedra i Zakład Rehabilitacji



ul. Borowska 213, 50-556 Wrocław  
tel.: 071 734 32 20, faks: 071 734 32 09  
e-mail: zaklad.rehab@gmail.com

**Coordinator / Person responsible for module/course, contact: telephone and e-mail address**

Dr hab. Edyta Sutkowska , 503077016; edyta.sutkowska@umed.wroc.pl

**List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.**

- Edyta Sutkowska, dr hab. n. med., doctor, physiotherapist – lectures, classes, seminars
- Iwona Demczyszak, dr n. k. fiz. physiotherapist - classes, seminars
- Justyna Mazurek, dr n. k. fiz., doctor, physiotherapist - classes, seminars
- Natalia Kućiel, dr n. med, physiotherapist classes, seminars
- Michał Sokołowski, dr n. med., doctor, physiotherapist - classes, seminars

**Date of Syllabus development**

**Syllabus developed by**

*12/10+12019*

Dr Michał Sokołowski

**Signature of Head of teaching unit**

Signature of Faculty Dean

Wrocław Medical University  
FACULTY OF MEDICINE  
VICE-DEAN FOR STUDENT AFFAIRS  
*[Signature]*  
Prof. Andrzej Hendrich, PhD

Uniwersytet Medyczny we Wrocławiu  
KATEDRA I ZAKŁAD REHABILITACJI  
kierownik

*[Signature]*  
dr hab. n. med. Edyta Sutkowska