

DESCRIPTION OF THE COURSE OF STUDY

Course code	0912-7LEK-C5.1-R	
Name of the course in	Polish	Rehabilitacja
	English	Rehabilitation

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	Medicine
1.2. Mode of study	Full-time
1.3. Level of study	Uniform Master's studies
1.4. Profile of study*	practical
1.5. Specialization*	Lack
1.6. Unit running the course of study	Faculty of Medicine and Health Sciences
1.7. Person/s preparing the course description	dr hab. n. med. Zbigniew Śliwiński prof. UJK
1.8. Person responsible for the course of study	dr hab. n. med. Zbigniew Śliwiński prof. UJK
1.9. Contact	dr_sliwinski@post.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Affiliation with the module	Non-surgical clinical sciences
2.2. Language of instruction	English
2.3. Semesters in which the course of study is offered	7 th semester
2.4. Prerequisites*	Information included in the curriculum for medical students in the scope of proper anatomy, physiology, laboratory diagnostics, orthopedics, neurology, internal medicine and pharmacology; in particular the structure and function of the osteoarticular system, nervous system, circulatory as well as respiratory system. The basic symptomatology of diseases of the motor system, nervous system as well as cardiovascular and respiratory system.

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	LECTURE: 15 , CLASSES- 15; PRACTICAL CLASSES: 20	
3.2. Place of classes	Lecture - Courses in the teaching rooms of the UJK, Exercises WnoZ workshops,	
3.3. Form of assessment	LECTURE – E, CLASSES- Zo (Credit with grade)	
3.4. Teaching methods	Conversation lecture, discussion, case study in natural conditions	
3.5. Bibliography	Required reading	<ol style="list-style-type: none"> 1. Śliwiński Zbigniew - redakcja wyd. pierwszego polskiego Joseph E. Muscolino . Badanie palpacyjne układów mię-śniowego i kostnego,. Wydanie II polskie . Wrocław. Edra Urban @ Partner Wrocław. 2016. 2. Derek Field, Jane Owen Hutchinson. Field's Anatomy, Palpation & surfach markings. Anatomia palpacyjna Field'a, punkty odniesienia. Wrocław. Elsevier Urban @ Partner Wrocław 2014. 3. Redakcja naukowa wydania polskiego Marek Żak, Zbigniew Śliwiński Andrew A. Guccione, Rita A. Wong, Dale Avers, Geriatric Physical Therapy. Fizjoterapia kliniczna w geriatрії. Wrocław. Elsevier Urban @ Partner Wrocław 2014 4. Śliwiński Zbigniew- redakcja wyd. Pierwszego polskiego. Kelvin Banks, Elly Hengeveld Maitland's Clinical Kompanion An

		Essentials Guide for Students. Podręcznik Maitlanda – Podstawowy przewodnik dla studentów, Wrocław. Elsevier Urban @ Partner Wrocław. 2012 ISBN 978-83-7609-619-3
	Further reading	<ol style="list-style-type: none"> 1. Śliwiński Zbigniew - redakcja wyd. pierwszego polskiego. Joseph'a E. Muscolino .The Muscle and Bone Palpation Manual with Trigger Points, Referral Patterns, and Stretching. Badanie palpacyjne układów mięśniowego i kostnego z uwzględnieniem punktów spustowych, stref odruchowych i stretchingu. Wrocław. Elsevier Urban @ Partner Wrocław. 2011. 2. Śliwiński Zbigniew - redakcja wyd. pierwszego polskiego. Nicola J Petty. Neuromusculoskeletal Examination and Assessment. A handbook for Therapists. Badanie narządu ru-chu. Wrocław. Elsevier Urban @ Partner 2010. 3. Śliwiński Zbigniew – redakcja redakcja wyd. pierwszego polskiego. Jonatan Kenyon, Karen Kenyon. The Physiotherapist's Pocket Book – Essential Fact at your Feingertips. Kompedium Fizjoterapii. Wrocław. Urban@Partner. 2007. ISBN 978-83-60290-06-4

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

4.1. Course objectives (including form of classes)

C 1 Getting acquainted with the problems of medical rehabilitation, familiarity with its definition, objectives, methods and means as well as the history of development.

C 2 Getting to know the elements of clinical trials for rehabilitation purposes, getting to know the basics principles of comprehensive improvement treatment programming.

C 3 To introduce the student to the problems of complex rehabilitation of patients with organ dysfunctions movement, improving treatment treatment of patients after acute spinal trauma with neurological complications, rehabilitation treatment of patients after the injuries of motor organ, comprehensive rehabilitation treatment of degenerative changes in the motor organ as well as defining its place in the interdisciplinary proceedings (including surgical), conservative treatment with spinal disease, rehabilitation in diseases of the respiratory tract and the cardiovascular system.

4.2. Detailed syllabus (including form of classes)

Lectures 5 lec. x 3 hours= 15 hours

1. CNS neuroplasticity and neurogenesis as the basis for medical rehabilitation. Polish model of medical rehabilitation. The role of a specialist in medical rehabilitation and cooperation as part of a rehabilitation team with a specialist in Physiotherapy. Rehabilitation goals, tasks and its place in the healthcare system. Disability as well as medical rehabilitation process.
2. Definition and physiological basis of rehabilitation, comprehensive rehabilitation, impact measures in rehabilitation, determinants of effectiveness and obstacles in rehabilitation, rehabilitation proceedings and prevention of disability, specificity of rehabilitation in diseases of the musculoskeletal, circulatory-respiratory, nervous system as well as people of developmental and elderly age.
3. Selected neurophysiological methods used in rehabilitation. Functional assessment of the patient. Indications and contraindications for rehabilitation. Basics of manual therapy.
4. Basics of kinesiotherapy, including types of therapeutic exercises. The specificity of rehabilitation in diseases of the musculoskeletal, circulatory-respiratory, nervous system as well as people of developmental age and the elderly.
5. The use of physical factors in therapeutic improvement, types of energy, its dosage and changes caused by its action. Radiological and imaging research in rehabilitation.

Classes 15 hours

1. Evaluation of the effectiveness of the musculoskeletal system in static and dynamic conditions. Programming the optimal physiotherapy proceedings in correlation with the results of physical examination.
2. Rehabilitation in diseases of the musculoskeletal system. Orthopedic surgery in orthopedics, traumatology and rheumatology (extracts, plaster dressings). Prevention and physiotherapy consequences of immobilization. Physiotherapy for operated patients because of the consequences of diseases of the musculoskeletal system. Faulty posture and scoliosis. Treatment of back pain. Rehabilitation in osteoporosis.

3. Clinical problems and basis for the rehabilitation of patients with diseases of the central and peripheral nervous system. Neuro-rehabilitation methods based on brain plasticity. Principles of physiotherapy in people with increased or reduced muscle tension. Spasticity and rigidity-methods of treatment. Posture defects and scoliosis
4. Clinical basis and principles of physiotherapy in peripheral vascular diseases and selected metabolic diseases. Principles of primary and secondary prevention of cardiovascular disease. Rehabilitation methods in diseases of the circulatory and respiratory systems
5. Pain therapy. Improving conditions of people with chronic progressive disease. Psychosocial problems of disabled.

Practical classes (20 hours)

1. Practical implementation of general and differential diagnostics for the purposes of medical rehabilitation. Practical application of selected methods of physical therapy and kinesiotherapy. Understanding neurorehabilitation methods based on brain plasticity.
2. Basics of rehabilitation of patients with diseases of the central and peripheral nervous system. Rules for rehabilitation among people with increased or reduced muscle tone. Methods of treating spasticity and muscle stiffness. Clinical problems and basics of rehabilitation in developmental age. Rehabilitation of children with sensory modulation disorders. Clinical problems and basics of rehabilitation of children with neurodevelopmental delay. Rehabilitation scoliosis and posture defects in children. Clinical problems and basics of orthopedic rehabilitation. Clinical problems and basics of rehabilitation of rheumatic diseases. Clinical problems and basics of rehabilitation in cardiovascular and respiratory diseases.
3. Clinical basics and principles of physiotherapy in peripheral vascular diseases and selected metabolic diseases. Clinical problems and basics of rehabilitation of gynecological diseases. Clinical problems and basics of otoneurological, geriatric and psychiatric rehabilitation. Clinical problems and basics of rehabilitation in surgical specialties. Clinical problems as well as basics of oncological rehabilitation.
4. Prognosis as a base for creating a medical rehabilitation program. Praxeological stages, goals and their hierarchy in the medical rehabilitation program. General schemes of medical rehabilitation programming. Construction of individual medical rehabilitation programs. Optimal program and minimal program in the process of medical rehabilitation. Comprehensiveness of the medical rehabilitation process. The results of scientific research as the basic criterion for choosing optimal solutions and a source of progress in medical rehabilitation.
5. Negative effects of improperly programmed medical rehabilitation. The necessity to change the schedule of medical rehabilitation. Control of obtained results as the basis for verification and modification of the medical rehabilitation program. Failures of previous rehabilitation as the basis for verification and modification of the medical rehabilitation program. The most common mistakes during programming medical rehabilitation.

4.3. Education outcomes in the discipline

Code	A student, who passed the course	Relation to teaching outcomes
within the scope of KNOWLEDGE , the graduate knows and understands:		
W01	environmental and epidemiological conditions for the most common diseases;	E.W1.
W02	the concept of invalidity and disability;	E.W30.
W03	the role of medical rehabilitation and methods used in it;	E.W31.
within the scope of ABILITIES , the graduate knows how to:		
U01	conduct full and targeted physical examination of the adult patient;	E.U3.
U02	assess patient's general condition, consciousness and awareness;	E.U7.
U03	perform differential diagnosis of the most common diseases in adults and children;	E.U12.
U04	assess and describe the somatic and mental state of patients;	E.U13.
U05	recognize states of a direct threat to life;	E.U14.
U06	plan diagnostic, therapeutic and preventive procedures;	E.U16.
U07	conduct analysis of the potential side effects of each drug and the interaction between them;	E.U17.
U08	qualify the patient for home treatment and hospitalization;	E.U20.
U09	recognize states in which functional status of the patient's or his/her preferences restrict the treatment in accordance with specific guidelines for the disease;	E.U21.
U10	conduct functional assessment of the patient with disability;	E.U22.
U11	propose a program of rehabilitation for common diseases;	E.U23.
U12	interpret laboratory test results and identify the reasons for deviations;	E.U24.
U13	plan specialist consultations;	E.U32.
U14	comply with the aseptic and antiseptic rules;	F.U3.

4.4. Methods of assessment of the intended teaching outcomes

Teaching outcomes (code))	Method of assessment (+/-)																				
	Exam oral/written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others*		
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes					
	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...
W01	+	+		+	+			+			+				+		+				+
W02	+	+		+	+			+			+				+		+				+
W03	+	+		+	+			+			+				+		+				+
U01	+	+		+	+			+			+				+		+				+
U02	+	+		+	+			+			+				+		+				+
U03	+	+		+	+			+			+				+		+				+
U04	+	+		+	+			+			+				+		+				+
U05	+	+		+	+			+			+				+		+				+
U06	+	+		+	+			+			+				+		+				+
U07	+	+		+	+			+			+				+		+				+
U08	+	+		+	+			+			+				+		+				+

U09	+	+		+	+			+			+			+		+			+
U10	+	+		+	+			+			+			+		+			+
U11	+	+		+	+			+			+			+		+			+

**delete as appropriate*

4.5. Criteria of assessment of the intended learning outcomes		
Form of classes	Grade	Criterion of assessment
lecture (L)	3	od 61%-68% (10pkt-12pkt)
	3,5	od 69%-76% (12,5pkt-14,5pkt)
	4	od 77%-84%(15pkt-16pkt)
	4,5	od 85%-92%(16,5pkt-17,5pkt)
	5	od 93%-100%(18pkt-20pkt)
classes (C)*	3	od 61%-68% (10pkt-12pkt)
	3,5	od 69%-76% (12,5pkt-14,5pkt)
	4	od 77%-84%(15pkt-16pkt)
	4,5	od 85%-92%(16,5pkt-17,5pkt)
	5	od 93%-100%(18pkt-20pkt)
others (...)*	3	od 61%-68% (10pkt-12pkt)
	3,5	od 69%-76% (12,5pkt-14,5pkt)
	4	od 77%-84%(15pkt-16pkt)
	4,5	od 85%-92%(16,5pkt-17,5pkt)
	5	od 93%-100%(18pkt-20pkt)

5. BALANCE OF ECTS CREDITS – STUDENT’S WORK INPUT

Category	Student's workload
	Full-time studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	50
<i>Participation in lectures*</i>	15
<i>Participation in classes, seminars, laboratories*</i>	35
<i>Preparation in the exam/ final test*</i>	
<i>Others*</i>	
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>	25
<i>Preparation for the lecture*</i>	15
<i>Preparation for the classes, seminars, laboratories*</i>	10
<i>Preparation for the exam/test*</i>	
<i>Gathering materials for the project/Internet query*</i>	
<i>Preparation of multimedia presentation</i>	
<i>Others (please specify e.g. e-learning)*</i>	
TOTAL NUMBER OF HOURS	75
ECTS credits for the course of study	3

**delete as appropriate*

Accepted for execution (date and legible signatures of the teachers running the course in the given academic year)

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