LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

м	odule Code	В	710	M 011 Accredited		ed		R	enewa	l date	
IVI		Branch	n of Science	Progr.	Registr. №.	until					
Enti	tlement										
Tele	rehabilitatio	n, Robotics	and Virtual	Reality							
Prer	equisites										
Phy	siology, Bio	mechanics,	Motor contro	and lear	ning, Neuroreha	bilitation					
Cou	rse (module)) Learning (Dutcomes								
№.	Learning Outcomes	Teachi	ng / Learning	g Methods			Asses	smen	t Met	hods	
1		classes			Formal lecture, 2 sks), Scientific	•		ce wo	ork, So	eportii cientif ysis	
2		Discus Semina		lecture, So	cientific paper a	nalysis,	Contr paper		-	cientif ysis	с
3		lecture	, Group work ses (tasks), Ro	, Laborato	xercise classes, l ory classes, Prac cientific paper a	tical	Repo	rting	for pra	actice	work
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Evaluation procedure of knowledge and abilities:

References

Rele	rences				
№.	Title	Sports U	Lithuanian University orary Number of exemplars	In Lithuanian Sports University bookstore	Number of ex. in the methodical cabinet of the depart.
1.	Cameron JD, Ramaprasad A, Syn T. An ontology of and roadmap for mHealth research. Int J Med Inform. 2017;100:16-25.			No	
2.	Shaffer J. Neuroplasticity and clinical practice: building brain power for health. Front Psychol. 2016;7:1118.			No	
3.	Khalid S, Alnajjar F, Gochoo M, Shimoda S. Robotic assistive and rehabilitation devices leading to motor recovery in upper limb: a systematic review. Disabil Rehabil Assist Technol. 2021:1-15.			No	
4.	Tang A, Thickbroom G, Rodger J. Repetitive transcranial magnetic stimulation of the brain: mechanisms from animal and experimental models. Neuroscientist. 2017;23(1):82-94.			No	
5.	Lefaucheur JP, Antal A, Ayache SS, Benninger DH, Brunelin J, Cogiamanian F, Cotelli M, et al. Evidence- based guidelines on the therapeutic use of transcranial direct current stimulation (tDCS). Clin Neurophysiol. 2017;128(1):56-92.			No	
6.	Aminov A, Rogers JM, Middleton S, Caeyenberghs K, Wilson PH. What do randomized controlled trials say about virtual rehabilitation in stroke? A systematic literature review and meta-analysis of upper-limb and cognitive outcomes. J Neuroeng Rehabil. 2018;15(1):29.			No	
7.	Cano Porras D, Siemonsma P, Inzelberg R, Zeilig G, Plotnik M. Advantages of virtual reality in the rehabilitation of balance and gait: Systematic review. Neurology. 2018;90(22):1017-1025.			No	
8.	Mat Rosly M, Mat Rosly H, Davis Oam GM, Husain R, Hasnan N. Exergaming for individuals with neurological disability: a systematic review. Disabil Rehabil. 2017;39(8):727-773.			No	
Add	itional literature				
<u>№</u> .	Title				
1.	Brophy PD. Overview on the challenges and benefits of Adv Chronic Kidney Dis. 2017;24(1):17-21. \	Ç			•
2.	Dobkin BH. A rehabilitation-internet-of-things in the ho training. Neurorehabil Neural Repair. 2017;31(3):217-2	27.			se
3.	Cramer SC, Sur M, Dobkin BH, O'Brien C, Sanger TD, neuroplasticity for clinical applications. Brain. 2011;134	4(Pt 6):159	1-609.		т.,
4.	Kolb B, Muhammad A. Harnessing the power of neurop 2014;8:377.	· ·			
5.	Huang VS, Krakauer JW. Robotic neurorehabilitation: a Neuroeng Rehabil. 2009;6:5.	a computati	onal motor l	earning perspec	ctive. J

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6.	Donati AR, Shokur S, Morya E, Campos DS, Moioli RC, Gitti CM, et al. Long-term training with a brain-machine interface-based gait protocol induces partial neurological recovery in paraplegic patients. Scientific Reports, 6, 30383.											
7.	Alia C, Spalletti C, Lai S, Panarese A, Lamola G, Bertolucci F, et al. Neuroplastic changes following brain ischemia and their contribution to stroke recovery: novel approaches in neurorehabilitation. Front Cell Neurosci. 2017;11:76.											
8.	Morone G, Paolucci S, Cherubini A, De Angelis D, Venturiero V, Coiro P, Iosa M. Robot-assisted gait training for stroke patients: current state of the art and perspectives of robotics. Neuropsychiatr Dis Treat. 2017;13:1303-1311.											
9.	Kang N, Summers JJ, Cauraugh JH. Non-invasive brain stimulation improves paretic limb force production: a systematic review and meta-analysis. Brain Stimul. 2016;9(5):662-670.											
10.	Garcia-Agundez A, Folkerts AK, Konrad R, Caserman P, Tregel T, Goosses M, Göbel S, Kalbe E.											
Coo	rdinating lecturer											
	Position Degree, surname, name Schedule №.											
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Study module teaching form №. 1

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