LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	B	710	B	051	Accredited until				Renewal date		
	Branch of Science		Progr.	Registr. №.							

Entitlement

Internal Medicine and Geriatric Patient Physiotherapy

Prerequisites

Anatomy, Physiology

Course (module) Learning Outcomes

№.	Learning Outcomes	Teaching / Learning Methods	Assessment Methods
1		Discussion, Exercise classes, Interactive lecture, Literature analysis, Reading list	Mid-term examination
2		Case analysis (Case study), Discussion, Exercise classes, Interactive lecture	Mid-term examination, Reporting for practice work
3		Case analysis (Case study), Discussion, Exercise classes, Interactive lecture, Reading list	Reporting for practice work
4		Case analysis (Case study), Discussion, Exercise classes, Interactive lecture, Literature analysis	Mid-term examination, Reporting for practice work
5		Case analysis (Case study), Discussion, Exercise classes, Interactive lecture, Literature analysis	Mid-term examination, Reporting for practice work
6		Case analysis (Case study), Discussion, Exercise classes, Interactive lecture, Literature analysis	Mid-term examination, Reporting for practice work

Main aim

To provide knowledge about patological and adaptive changes in human body, internal medicine, examination of patient, interpretation data of examination and planning activity of physiotherapy.

Summary

The main patological and adaptive changes in human body. Internal medicine, examination of patient, interpretation data of examination and planning activity of physiotherapy.

Level of module

Level of programme		Subject group (under the regulation of the area)
Cycle	Type	
First	Bachelor	Specialaus lavinimo

Group under financial classification

9.Reabilitacija ir slauga, sportas (išskyrus trenerius)

Syllabus

№.	Sections and themes	Responsible lecturer
1.	Cardiological Diseases: Classification, epidemiology, etiology, signs and symptoms.	
2.	Vascular diseases: classification, epidemiology, etiology, clinic.	
3.	Signs and symptoms of Cardiologic diseases.	
4.	Reumatological diseases: classification, epidemiology, etiology, signs and symptoms.	
5.	Epidemiology, etiology, signs and symptoms of restrictive Lung Diseases.	
6.	Epidemiology, etiology, signs and symptoms of Obstructive Pulmonary Diseases.	
7.	Gastroenterological Diseases: classification, epidemiology, etiology, signs and symptoms.	
8.	Endocrinological diseases: classification, epidemiology, etiology, signs and symptoms.	

№.	Sections and themes	Responsible lecturer
9.	Cancer: classification, epidemiology, etiology, signs and symptoms.	
10.	Haematological diseases: classification, epidemiology, etiology, signs and symptoms.	
11.	Nephrological diseases: classification, epidemiology, etiology, symptoms and signs.	
12.	Aging. Body changes related to aging. Physiotherapy for geriatric patients.	
13.	Cardiovascular system. Subjective and objective evaluation the patient. ICF,	
14.	Evaluation of function of cardiovascular system. Recovery after different intensity and types of exercises. Cardiac exercise stress testing	
15.	Physiotherapy for deep vein thrombosis.	
16.	Physiotherapy for patients with left and right-sided heart failure.	
17.	Prescription of exercise during secondary prevention of ischemic heart disease.	
18.	Respiratory system. Subjective and objective examination and evaluation of the patient.Functional evaluation of respiratory function.	
19.	Preoperative and postoperative physiotherapy. Abdominal, thoracic surgery.	
20.	Lung auscultation and evaluation of breathing sounds.	
21.	Positional drainage and percussion massage. Static and dynamic breathing exercise techniques.	
22.	Physiotherapy techniques to improve mobility of shoulder girdle and thorax. Exercise for strengthening of breathing muscles.	
23.	Physiotherapy in the treatment of fibromyalgia, rheumatoid arthritis.	
24.	Subjective and objective evaluation of patient with metabolic diseases. Anthropometry. W-H ratio.	
25.	Physiotherapy methods for obese patients.	
26.	Examination and Evaluation of functional status of geriatric patient.	
27.	Prophylaxis of fall risk of geriatric patients.	
28.	Physiotherapy for palliative and coma patients. Patient handling.	
29.	Physiotherapy for patients with movement and connective tissue diseases.	
30.	Lymphedema: classification, evaluation, physiotherapy.	

Evaluation procedure of knowledge and abilities:

References

№.	Title	Edition in Lithuanian Sports University library		In Lithuanian Sports University bookstore	Number of ex. in the methodical cabinet of the depart.
		Pressmark	Number of exemplars		
1.	Naudžiūnas, A., Sadauskas, S., Unikauskas, A., Leišytė, P., Valius, L., Kalinauskienė, E., & Mašanauskienė, E. (2019). Vidaus ligų diagnostikos pagrindai: vadovėlis.	615.82 Iv36		Yes	1
2.	Main, E., & Denehy, L. (Eds.). (2016). Cardiorespiratory Physiotherapy: Adults and Paediatrics E-Book: formerly Physiotherapy for Respiratory and Cardiac Problems. Elsevier Health Sciences.			No	1
3.	Guccione, A. A., Avers, D., & Wong, R. (2011). Geriatric physical therapy-ebook. Elsevier Health Sciences.			No	1
4.	Jones, M., & Moffatt, F. (2002). Cardiopulmonary physiotherapy. Taylor & Francis.	616.1 Jo-162		Yes	

Additional literature

№.	Title
1.	Naudžiūnas, A., Sadauskas, S., Unikauskas, A., Leišytė, P., Valius, L., Kalinauskienė, E., & Mašanauskienė, E. (2019). Vidaus ligų diagnostikos pagrindai: vadovėlis.
2.	Main, E., & Denehy, L. (Eds.). (2016). Cardiorespiratory Physiotherapy: Adults and Paediatrics E-Book: formerly Physiotherapy for Respiratory and Cardiac Problems. Elsevier Health Sciences.
3.	Hodgson, C. L., & Tipping, C. J. (2017). Physiotherapy management of intensive care unit-acquired weakness. Journal of physiotherapy, 63(1), 4-10.
4.	Santino, T. A., Chaves, G. S., Freitas, D. A., Fregonezi, G. A., & Mendonca, K. M. (2020). Breathing exercises for adults with asthma. Cochrane Database of Systematic Reviews, (3).
5.	Westerdahl, E. (2015). Optimal technique for deep breathing exercises after cardiac surgery. Minerva Anestesiol, 81(6), 678-683.
6.	Storari, L., Barbari, V., Brindisino, F., Testa, M., & Filippo, M. (2021). An unusual presentation of acute myocardial infarction in physiotherapy direct access: findings from a case report. Archives of Physiotherapy, 11(1), 1-9.
7.	Anderson, L., Sharp, G. A., Norton, R. J., Dalal, H., Dean, S. G., Jolly, K., ... & Taylor, R. S. (2017). Home-based versus centre-based cardiac rehabilitation. Cochrane database of systematic reviews, (6).
8.	Bjarnason-Wehrens, B., Nebel, R., Jensen, K., Hackbusch, M., Grilli, M., Gielen, S., ... & German Society of Cardiovascular Prevention and Rehabilitation (DGPR). (2020). Exercise-based cardiac rehabilitation in patients with reduced left ventricular ejection fraction: the Cardiac Rehabilitation Outcome Study in Heart Failure (CROS-HF): a systematic review and meta-analysis. European journal of pre
9.	Rao, A., Zecchin, R., Newton, P. J., Phillips, J. L., DiGiacomo, M., Denniss, A. R., & Hickman, L. D. (2020). The prevalence and impact of depression and anxiety in cardiac rehabilitation: a longitudinal cohort study. European journal of preventive cardiology, 27(5), 478-489.
10.	Scherrenberg, M., Wilhelm, M., Hansen, D., Völler, H., Cornelissen, V., Frederix, I., ... & Dendale, P. (2021). The future is now: a call for action for cardiac telerehabilitation in the COVID-19 pandemic from the secondary prevention and rehabilitation section of the European Association of Preventive Cardiology. European journal of preventive cardiology, 28(5), 524-540.
11.	Shen, M., Li, Y., Ding, X., Xu, L., Li, F., & Lin, H. (2020). Effect of active cycle of breathing techniques in patients with chronic obstructive pulmonary disease: a systematic review of intervention. European journal of physical and rehabilitation medicine.
12.	Zuriati, Z., & Surya, M. (2020). Effectiveness Active Cycle of Breathing Technique (ACBT) with Pursed Lips Breathing Technique (PLBT) to tripod position in increase oxygen saturation in patients with COPD, West Sumatera. Enfermería Clínica, 30, 164-167.
13.	Yang, M., Zhang, J. E., Huang, X. X., Li, C. Z., Hong, Z. X., & Zhang, S. W. (2018). Effect of the self-efficacy-enhancing active cycle of breathing technique on lung cancer patients with lung resection: A quasi-experimental trial. European Journal of Oncology Nursing, 34, 1-7.
14.	Athawale, V. K., Lalwani, L. L., & Mishra, G. P. (2020). Comparison of the Active Cycle of Breathing Technique (ACBT) versus Active Cycle of Breathing Technique with Flutter in Bronchiectasis. National Journal of Medical Research, 10(4), 178-180.
15.	Hall, K., Maxwell, L., Cobb, R., Steele, M., Chambers, R., Roll, M., ... & Kuys, S. (2021). Physiotherapy service provision in a specialist adult cystic fibrosis service: A pre-post design study with the inclusion of an allied health assistant. Chronic Respiratory Disease, 18, 14799731211017895.
16.	Bennell, K. L., Nelligan, R. K., Kimp, A. J., Schwartz, S., Kasza, J., Wrigley, T. V., ... & Hinman, R. S. (2020). What type of exercise is most effective for people with knee osteoarthritis and co-morbid obesity?: The TARGET randomized controlled trial. Osteoarthritis and cartilage, 28(6), 755-765.
17.	Abdelbasset, W. K., Tantawy, S. A., Kamel, D. M., Alqahtani, B. A., Elnegamy, T. E., Soliman, G. S., & Ibrahim, A. A. (2020). Effects of high-intensity interval and moderate-intensity continuous aerobic exercise on diabetic obese patients with nonalcoholic fatty liver disease: A comparative randomized controlled trial. Medicine, 99(10), e19471.
18.	Davies, C., Levenhagen, K., Ryans, K., Perdomo, M., & Gilchrist, L. (2020). Interventions for Breast Cancer–Related Lymphedema: Clinical Practice Guideline From the Academy of Oncologic Physical Therapy of APTA. Physical therapy, 100(7), 1163-1179.

№.	Title
19.	Torres-Lacomba, M., Navarro-Brazález, B., Prieto-Gómez, V., Ferrandez, J. C., Bouchet, J. Y., & Romay-Barrero, H. (2020). Effectiveness of four types of bandages and kinesio-tape for treating breast-cancer-related lymphoedema: a randomized, single-blind, clinical trial. Clinical Rehabilitation, 34(9), 1230-1241.
20.	Ortel, T. L., Neumann, I., Ageno, W., Beyth, R., Clark, N. P., Cuker, A., ... & Zhang, Y. (2020). American Society of Hematology 2020 guidelines for management of venous thromboembolism: treatment of deep vein thrombosis and pulmonary embolism. Blood advances, 4(19), 4693-4738.
21.	Wilkinson, M. J., Manoogian, E. N., Zadourian, A., Lo, H., Fakhouri, S., Shoghi, A., ... & Taub, P. R. (2020). Ten-hour time-restricted eating reduces weight, blood pressure, and atherogenic lipids in patients with metabolic syndrome. Cell metabolism, 31(1), 92-104.
22.	NESREEN, G., YASMIN, M., HAKEM, M., & SALLY, A. (2019). Effect of Pilates Exercise on Cardio Metabolic Risk Factors in Women with Type 2 Diabetes. The Medical Journal of Cairo University, 87(March), 851-851.
23.	Wong, R. M. Y., Chong, K. C., Law, S. W., Ho, W. T., Li, J., Chui, C. S., ... & Cheung, W. H. (2020). The effectiveness of exercises on fall and fracture prevention amongst community elderlies: A systematic review and meta-analysis. Journal of orthopaedic translation.
24.	Permadi, A. W., Hartono, S., Wahjuni, E. S., & Lestari, N. K. D. (2020). The Combination of Physical Exercise Programs in Patients with Heart Failure. International Journal of Pharmaceutical and Phytopharmacological Research, 10(1), 22-8.
25.	Abdullahi, A. (2020). Safety and efficacy of chest physiotherapy in patients with COVID-19: a critical review. Frontiers in medicine, 7.
26.	Alam, M., Hussain, S., Shehzad, M. I., Mushtaq, A., Rauf, A., & Ishaq, S. (2020). Comparing the Effect of Incentive Spirometry with Acapella on Blood Gases in Physiotherapy After Coronary Artery Bypass Graft. Cureus, 12(2).
27.	Oshvandi, K., Bostanbakhsh, A., Salavati, M., Bakhsai, M., Moghimbeighi, A., & Maghsoudi, Z. (2020). Effect of Respiratory Exercises on the Prevalence of Atelectasis in Patients Undergoing Coronary Artery Bypass Surgery. Avicenna Journal of Nursing and Midwifery Care, 27(6), 432-440.
28.	Lockstone, J., Parry, S. M., Denehy, L., Robertson, I. K., Story, D., Parkes, S., & Boden, I. (2020). Physiotherapist administered, non-invasive ventilation to reduce postoperative pulmonary complications in high-risk patients following elective upper abdominal surgery; a before-and-after cohort implementation study. Physiotherapy, 106, 77-86.
29.	Boden, I., Robertson, I. K., Neil, A., Reeve, J., Palmer, A. J., Skinner, E. H., ... & Denehy, L. (2020). Preoperative physiotherapy is cost-effective for preventing pulmonary complications after major abdominal surgery: a health economic analysis of a multicentre randomised trial. Journal of Physiotherapy, 66(3), 180-187.
30.	Burgess, L. C., Immins, T., & Wainwright, T. W. (2019). What is the role of post-operative physiotherapy in general surgical Enhanced Recovery after Surgery pathways?. European Journal of Physiotherapy, 21(2), 67-72.

Coordinating lecturer

Position	Degree, surname, name	Schedule №.
Associate Professor		43

Subdivision

Entitlement	Code
a	2006

Study module teaching form №. 1

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	D	12	0	18	100	130	5

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.

Plan of in-class hours

№. of Themes	Academic hours			№. of Themes	Academic hours		
	Theory	Seminars	Lab Works		Theory	Seminars	Lab Works
1.	1	0	0	16.	0	0	1
2.	1	0	0	17.	0	0	1
3.	1	0	0	18.	0	0	1
4.	1	0	0	19.	0	0	1
5.	1	0	0	20.	0	0	1
6.	1	0	0	21.	0	0	1
7.	1	0	0	22.	0	0	1
8.	1	0	0	23.	0	0	1
9.	1	0	0	24.	0	0	1
10.	1	0	0	25.	0	0	1
11.	1	0	0	26.	0	0	1
12.	1	0	0	27.	0	0	1
13.	0	0	1	28.	0	0	1
14.	0	0	1	29.	0	0	1
15.	0	0	1	30.	0	0	1
				Total:	12	0	18

Schedule of individual work tasks and their influence on final grade

	№. of syllabus	Total hours	Influence on grade, %	Week of presentment of task (*) and reporting (o)															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17-20
Scientific paper (text) analysis	1-6	10	10	*	*	*	*	*	0											
Exam	1-30	50	50	*														*	0	
Reflection on action	13-30	20	20	*														*	0	
	13-22	10	10							*	*	*	0							
Problem-solving task	22-27	10	10											*	*	*	*	0		
Total:	-	100	100																	