



LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	S	273	M	089	Accredited until				Renewal date		
	Branch of Science		Progr.	Registr. №.							

Entitlement

Methodology of Testing and Training of Physical Fitness

Prerequisites

bachelor studies in sports, medicine or public health

Course (module) Learning Outcomes

№.	Learning Outcomes	Teaching / Learning Methods	Assessment Methods
1	Will be able to analyze the effects of physical activity on the basis of modern knowledge of sports science.	Case analysis (Case study), Debates, Discussion, Practical exercises (tasks)	Problem-solving task
2	Will be able to develop an individual exercise health promotion program.	Discussion, Seminar, Simulation of real-life (world) situations	Case analysis (study)
3	Will be able to plan and conduct research to evaluate the effectiveness of health promotion exercise programs, analyze and evaluate the progress of the health promotion process.	Formal lecture, One-to-one tutorials, Seminar	Test
4	Will be able to analyze and critically evaluate the essence of modified or new methods and models for enhancing health through exercising.	Formal lecture, Literature analysis, Scientific paper analysis, Seminar	Individual work

Main aim

To provide knowledge about the research-based process of exercising for health promotion and its management, applied research methodology, to develop the ability to analyze and critically evaluate this process.

Summary

Students should study and get acquainted with the research based methodology of exercising for health promotion, to study the effects of fast and long-term adaptation caused by the use of various training methods and their links or interactions with the health. The main focus is set on the study of methods for the development of health-related physical abilities. Issues of methodology of assessment of physical abilities are studied in close connection with the development of health promotion programs and evaluations of their effectiveness. The study process develops the ability to analyze and critically evaluate the essence of new and popular methods models of physical activity in Lithuania and all over the world.

Level of module

Level of programme		Subject group (under the regulation of the area)	Subject level
Cycle	Type		
Second	Master	Mokslo srities pagrindų	Deepening

Group under financial classification

Syllabus

№.	Sections and themes	Responsible lecturer
1.	Training and Feedback of Health Related Physical Abilities at Different Ages.	
1.1	Modern approach to training and assessment methods of physical characteristics of children aged 5 - 17 years. Guidelines for the development of physical abilities, principles of assigning exercises. (functional tests, test batteries, principles for assigning exercise to children)	

№.	Sections and themes	Responsible lecturer
1.2	Modern approach to the assessment and education of young people and middle-aged people. (functional tests are widely used to assess physical characteristics, basic principles of physical exercise).	
1.3	Modern approach to physical fitness testing of older people, assessment of risk to physical activity, principles of physical activity assignment and individualization. (functional tests, health assessment, exercise assignments).	
1.4	Assessment of the physical condition of people with special needs and assignment of exercises.	
2.	Methods and Methodology of Training of Health Related Physical Abilities	
2.1	Methodology and methods of strength training	
2.2	Methodology and methods of training of cardiovascular endurance.	
2.3	Methodology and methods for flexibility training.	
2.4	Methodological bases of coordination and balance training.	
2.5	Methodology of training of agility, speed, jumping and other physical abilities.	
2.6	The problem of individualization and its solutions, the monitoring process.	
2.7	Exercising for health - development of health promotion programs.	
3.	Methodology of Training and Assessment of Health Related Physical Abilities	
3.1	The object of methodology, methodology - the science that validates the methods. Methodology of applied research. Research in sports area.	
3.2	Physical abilities as health determinants. The Complexity of body and sports activities.	
3.3	Educational process, Methodological approaches of exercise training of amateur and professional athletes.	
3.4	The problem of forecasting, planning and process management of athletics training and its solutions.	
3.5	Important Biomedical aspects and modalities in training of physical abilities.	
3.6	Methodological process in pedagogical research: planning, indicators, evaluation criteria and their application in the process of developing physical abilities.	
3.7	Review, discussion and generalizations of the study course.	

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.	Ann Gibson, Dale Wagner, Vivian Heyward. Advanced Fitness Assessment and Exercise Prescription 8th Edition With Online Video. Internetinė prieiga: https://us.humankinetics.com/products/advanced-fitness-assessment-and-exercise-prescription-8th-edition-with-online-video		2	No	
<i>Comment: Free internet access</i>					
2.	David P. Swain et al. ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription American College of Sports Medicine.	615.825 Ac51	1	Yes	
3.	Global Recommendations on Physical Activity for Health . WHO. Internetinė prieiga: http://www.who.int/topics/physical_activity/en/			Yes	
<i>Comment: Free online access in five languages</i>					

№.	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		
4.	Swain, David P. Exercise prescription : a case study approach to the ACSM guidelines PSOb (Pasaulio sveikatos organizacija) (2020). Physical activity. Prieiga per internetą: https://www.who.int/en/news-room/fact-sheets/detail/physical-activity 34.	615.825 Ac51	1	Yes	
<i>Comment: Free online access</i>					
5.	PSOb (Pasaulio sveikatos organizacija) (2020). Launch of new global estimates on levels of physical activity in adults. Prieiga per internetą: https://www.who.int/ncds/prevention/physical-activity/lancet-global-health-insufficientphysical-activity-2001-2016/en/			Yes	
<i>Comment: Free internet access</i>					
6.	Felipe Lobelo et al., (2018) Routine Assessment and Promotion of Physical Activity in Healthcare Settings: A Scientific Statement From the American Heart Association (Review). 1;137(18):e495-e522.	615.827 Ac51	1	Yes	
<i>Comment: Free online access.</i>					
7.	Martin R., Xavier R., Jonathan C., Charles, C. (2018). Planning and monitoring of sports training: what is it and how to teach it? Review paper. LASE Journal of Sport Science, 9(1) 91-123.		5	Yes	3
<i>Comment: Review on the methodology and methods of the study module.</i>					
8.	Skurvydas A. (2017). Judesių mokslas: raumenys, valdymas, mokymas, metodologija, reabilitavimas, sveikatinimas, treniravimas. Kaunas : Vitae litera.	612.7 Sk93	20	Yes	1

Additional literature

№.	Title
1.	Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2018). Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1-9 million participants. <i>The Lancet Global Health</i> , 6(10), e1077-e1086.
2.	European Society of Cardiology (2016). European Guidelines on cardiovascular disease prevention in clinical practice, <i>European Heart Journal</i> , vol. 37, no. 29, p p. 2315–2381, 2016.
3.	Carl J Lavie et al. (2019). Sedentary Behavior, Exercise, and Cardiovascular Health (Review) <i>Circ Res</i> ; 124(5):799-815.
4.	Bohannon, R. W. (2008). Hand-grip dynamometry predicts future outcomes in aging adults. <i>Journal of geriatric physical therapy</i> , 31(1), 3-10.
5.	Scott K. Powers, Edward T. Howley. <i>Exercise Physiology: Theory and Application to Fitness and Performance</i> , 10e.
6.	Zumeras, R. (2018). Bendros fizinio aktyvumo rekomendacijos 3 amžiaus grupėms. Sveikatos mokymo ir ligų prevencijos centras. Prieiga per internetą: https://sam.lrv.lt/uploads/sam/documents/files/fizinio_aktyvumo_rekomendacijos_(1).pdf
7.	Boggenpoel, B (2018) The use of periodized exercise prescription in physical rehabilitation: A scoping review of literature. <i>Annals of Physical and Rehabilitation Medicine</i> , 61, e462-e462.
8.	Boggenpoel, B (2018) The use of periodized exercise prescription in physical rehabilitation: A scoping review of literature. <i>Annals of Physical and Rehabilitation Medicine</i> , 61, e462-e462.
9.	Bompa T. O. Buzzichelli C. <i>Periodization. Theory and Methodology of Training</i> . Champaign, IL: Human Kinetics, 2019.

