

LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	В	001	В	033	Accredited	2018	06	01	Ren	ewal o	late]
Wiodule Code	Branch	of Science	Progr.	Registr. №.	until	2016	00	01				1

Entitlement

Applied Basic Health Sciences

Prerequisites

Secondary education

Main aim

To provide students with knowledge about the human body's structure, functions, ability to organize the modern scientific achievements and creative activities to prepare students for graduate study and practical application of the special medical, physical or health education techniques. The aim is to educate students: testing (PALC-3) and scientific reseach (PALC-5) skills.

Provided knowledge and abilities

- 1. Will be able to apply, analyze and interpret the diagnostic methods of body's systems functional work, to assess the functional capacity (PALC-3)
- 2. Define a professional qualification underlying biomedical sciences basic knowledge, theories and patterns, will be able to extrapolate the developing subject-specific competencies. (PALC-5)
- 3. Will be able to distinguish, make proper analysis of biomedical research (PALC-5)
- 4. Define and explain the processes occurring in the human body (finger-5)

Summary

The module includes the following thematic areas: biochemistry, physiology, sport and exercise physiology. The module is designed to the first level "European Bachelor of Physical Activity and Lifestyle" study program students. The goal - to provide students with knowledge about the human body's structure, functions, ability to organize the modern scientific achievements and creative activities, to prepare students for graduate study and practical application of the special medical, physical or health education techniques.

Level of module

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

Group under financial classification

Syllabus

№.	Sections and themes	Responsible lecturer
1.	The human body's structure and chemical composition. Energy metabolism. Proteins, enzymes, vitamins, their classification and functions.	701 doc. dr. Sandrija Čapkauskienė
2.	Carbohydrates, their properties, functions and metabolism	701 doc. dr. Sandrija Čapkauskienė
3.	Lipids, their properties, functions and metabolism	701 doc. dr. Sandrija Čapkauskienė
4.	Physical exercises bioenergy	701 doc. dr. Sandrija Čapkauskienė
5.	Nervous system, it's structure and functions, neuromotory organization, adaptation to physical loads	701 doc. dr. Sandrija Čapkauskienė
6.	Skeletal muscle system, it's structure and functions. Muscle composition. Skeletal muscle adaptation to physical loads	701 doc. dr. Sandrija Čapkauskienė
7.	Structure and functions of cardiovascular system, it's adaptation to physical loads	701 doc. dr. Sandrija Čapkauskienė
8.	Structure and functions of respiratory system, it's adaptation to physical loads	701 doc. dr. Sandrija Čapkauskienė

№.	Sections and themes	Responsible lecturer
9.	Endocrine system, hormonal regulation of the organism functions, endocrin and imunne changes in adaptating to physical loads.	701 doc. dr. Sandrija Čapkauskienė
10.	Digestive and excretion systems, their structure and functions, adaptation to physical loads	701 doc. dr. Sandrija Čapkauskienė
11.	General pattrens of fast adaptation to physical loads (prestarting state, fatigue and recovery). Warming physiology	54 prof. dr. Arvydas Stasiulis
12.	Aerobic and anaerobic power training physiology	54 prof. dr. Arvydas Stasiulis
13.	Strenght, speed and flexibility training physiology	54 prof. dr. Arvydas Stasiulis
14.	Organism adaptation and physical performance under different environmental conditions.	54 prof. dr. Arvydas Stasiulis
15.	Morfofunctional pecularities of physical performance and adaptation to physical loads depending on age, sex and health status	54 prof. dr. Arvydas Stasiulis
16.	Introduction of molecular exercise physiology	54 prof. dr. Arvydas Stasiulis

Teaching/learning methods:

Lectures, problem lectures, laboratory work, an illustrated oral presentation, discussion, study and scientific literature analysis

Evaluation procedure of knowledge and abilities:

References

		Edition in Lithu University		In Lithuanian Sports	Number of ex. in the
№.	Title	Pressmark	Number of exemplars	University bookstore	methodical cabinet of the depart.
1.	Molecular biology of the cell	57 Mo-69		No	
2.	Human physiology	612 Fo-298		No	
3.	Fundamentals of biochemistry	57 Vo-16		No	
4.	Physiology of sport and exercise	796.01:612 Ke- 112		No	

Additional literature

№.	Title
	Sheel W. A., Guenette, J.A. 2008. Mechanics of Breathing during Exercise in Men and Women: Sex
1.	versus Body Size Differences?;Exerc Sport Sci Rev.;36(3):128-34;
	http://www.ncbi.nlm.nih.gov/pubmed/18580293
2.	Babb T.G., Wood H.E., Mitchell G.S.(2010). Short- and long-term modulation of the exercise ventilatory
۷.	response;Med Sci Sports Exerc.;42(9):1681-7. http://www.ncbi.nlm.nih.gov/pubmed/20164813
3.	Westerblad H., Bruton J.D., Katz A. (2010). Skeletal muscle: energy metabolism, fiber types, fatigue and
٥.	adaptability. Exp Cell Res. 1;316(18):3093-9. http://www.ncbi.nlm.nih.gov/pubmed/20580710
4.	Davis M.P., Walsh D. (2010). Mechanisms of Fatigue. J Support Oncol; 8:164–174;
4.	http://www.ncbi.nlm.nih.gov/pubmed/20822034
5.	Kerksick Ch.et al.(2008). International Society of Sports Nutrition position stand: Nutrient timing. Journal
٥.	of the International Society of Sports Nutrition, 5:17; http://www.jissn.com/content/5/1/17

Coordinating lecturer

Position	Degree, surname, name	Schedule №.
Associate Professor	Assoc. Prof. Dr. Sandrija Čapkauskienė	701

Subdivision

Entitlement	Code
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Schedule of individual work tasks and their influence on final grade

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Study module teaching form №. 4

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Languages of instruction:

Lithuanian

	Plan of in-class	Plan of in-class hours								
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French

German

Other

Schedule of individual work tasks and their influence on final grade

Е

Russian

English

	8-11-1								
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