LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	B	001	B	033	Accredited until	2018	06	01	Renewal date		
	Branch of Science		Progr.	Registr. №.							

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 area)
Cycle	Type	
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

№.	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.	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
1.	Sheel W. A., Guenette, J.A. 2008. Mechanics of Breathing during Exercise in Men and Women: Sex 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 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 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; http://www.ncbi.nlm.nih.gov/pubmed/20822034
5.	Kerksick Ch.et al.(2008). International Society of Sports Nutrition position stand: Nutrient timing. Journal 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
a	2006

Study module teaching form №. 1

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	D	20	10	0	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
				Total:	0	0	0

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
Test	1-4	25	10				*			0										
Test	5-10	25	10				*								0					
Test	11-16	25	10				*												0	
Exam	1-16	11	40				*													0
Reporting for laboratory work	2; 8; 12	8	15					0					0				0			
Oral presentation	1-16	10	15						0					0				0		
Total:	-	104	100																	

Study module teaching form №. 2

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	N	20	10	0	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
				Total:	0	0	0

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
Total:	-	0	0																	

Study module teaching form №. 3

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	D	20	10	0	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
				Total:	0	0	0

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
Total:	-	0	0																	

Study module teaching form №. 4

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	N	20	10	0	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
				Total:	0	0	0

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
Total:	-	0	0																	