



LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	B	470	B	001	Accredited until	2020	06	01	Renewal date
	Branch of Science		Progr.	Registr. №.					

Entitlement

Sports and Exercise Physiology

Prerequisites

Course (module) Learning Outcomes

№.	Learning Outcomes	Teaching / Learning Methods	Assessment Methods
1		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Test
2		Case analysis (Case study), Discussion, Seminar	Oral presentation, Seminar
3		Case analysis (Case study), Discussion, Laboratory classes, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Seminar, Test
4		Case analysis (Case study), Discussion, Laboratory classes, Literature analysis, Seminar	Background reading, Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Seminar, Test
5		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Literature analysis, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test
6		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Literature analysis, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test
7		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Literature analysis, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test
8		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Literature analysis, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test
9		Case analysis (Case study), Discussion, Formal lecture, Laboratory classes, Literature analysis, Problem-based learning, Reflection on action, Seminar	Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test

Main aim

Summary

Acute responses to physical activity. Anticipation, on-transition, fatigue, recovery. Organism adaptation under influence of endurance and strength developing training loads. The physiological basis of endurance and strength training. Testing of aerobic and anaerobic capacity. Longterm adaptation of the human organism during chronic physical activity. Adaptation and performance under different environmental conditions. Age and sex influence on the adaptation to training loads.

Level of module

Level of programme		Subject group (under the regulation of the area)
Cycle	Type	
First	Bachelor	Mokslo srities pagrindų

Group under financial classification

5.Fizinių, biomedicinos, technologijos mokslų studijos (išskyrus nurodytąsias 6, 7, 11, 13, 14 ir 16 punktuose)

Syllabus

№.	Sections and themes	Responsible lecturer
1.		54 prof. dr. Arvydas Stasiulis
2.		701 doc. dr. Sandrija Čapkauskienė
3.		701 doc. dr. Sandrija Čapkauskienė
4.		701 doc. dr. Sandrija Čapkauskienė
5.		701 doc. dr. Sandrija Čapkauskienė
6.		54 prof. dr. Arvydas Stasiulis
7.		701 doc. dr. Sandrija Čapkauskienė
8.		701 doc. dr. Sandrija Čapkauskienė
9.		701 doc. dr. Sandrija Čapkauskienė
10.		701 doc. dr. Sandrija Čapkauskienė
11.		54 prof. dr. Arvydas Stasiulis
12.		54 prof. dr. Arvydas Stasiulis
13.		54 prof. dr. Arvydas Stasiulis
14.		54 prof. dr. Arvydas Stasiulis
15.		54 prof. dr. Arvydas Stasiulis
16.		54 prof. dr. Arvydas Stasiulis
17.		54 prof. dr. Arvydas Stasiulis
18.		54 prof. dr. Arvydas Stasiulis

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.	http://www.lsu.lt/ Emokymas			No	
2.	Stasiulis A., Dubininkaitė L., Venckūnas T. Sporto ir pratimų fiziologijos laboratoriniai darbai.		100	No	
3.	Kėvelaitis E., Illert M., Hultborn H. Žmogaus fiziologija. 2009, KMU leidykla		2	No	
4.	Vitkienė I., Čapkauskienė S. Kraujas ir kraujo apytaka raumenų veiklos metu. 2008, LSU biblioteka			No	

Additional literature

№.	Title
1.	Kraemer W.J., Fleck S.J., Deschenes M.R. Exercise physiology integrating theory and application. LWW, 2012
2.	McArdle W.D., Katch F.I., Katch V.L. Exercise physiology: energy, nutrition, and human performance. LWW, 2010
3.	Wilmore J.H., Costill D.L., Kenny W.L. Physiology of sport and exercise. Human kinetics, 2012
4.	Maughan R., Gleeson M. The biochemical basis of sports performance. Oxford university press, 2010

Coordinating lecturer

Position	Degree, surname, name	Schedule №.
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Professor	Prof. Dr. Arvydas Stasiulis	54
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	28	24	0	208	260	10

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.
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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	10.	1	1	0
2.	1	1	0	11.	6	0	4
3.	1	0	0	12.	1	1	0
4.	1	0	2	13.	3	0	4
5.	1	0	0	14.	3	0	2
6.	1	0	2	15.	2	1	0
7.	1	0	2	16.	1	1	0
8.	1	1	0	17.	1	1	0
9.	1	1	0	18.	1	0	0
Total:					28	8	16

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	2-10	20	5	*				0												
Directed private laboratory work	2-14	16	5	*						0										
Oral presentation	2-17	40	10	*													0			
Seminar	2-17	4	5	*													0			
Exam	2-17	38	45	*															0	
Test	11-13	20	5					*			0									
Test	14-17	20	5					*				0								
Laboratory notes and report	11-14	50	20									*				0				
Total:	-	208	100																	

Study module teaching form №. 2

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	D	30	30	0	200	260	10

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.
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Plan of in-class hours

№. of Themes	Academic hours			№. of Themes	Academic hours		
	Theory	Seminars	Lab Works		Theory	Seminars	Lab Works

№. of Themes	Academic hours			№. of Themes	Academic hours		
	Theory	Seminars	Lab Works		Theory	Seminars	Lab Works
1.	1	0	0	10.	1	1	0
2.	1	1	0	11.	6	0	4
3.	1	0	0	12.	1	1	0
4.	1	0	2	13.	3	0	4
5.	1	0	0	14.	3	0	2
6.	1	0	2	15.	2	1	0
7.	1	0	2	16.	1	1	0
8.	1	1	0	17.	1	1	0
9.	1	1	0	18.	1	0	0
Total:					28	8	16

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	2-10	20	5	*				5												
Directed private laboratory work	2-14	16	5	*						0										
Oral presentation	2-17	40	10	*													0			
Seminar	2-17	4	5	*													0			
Exam	2-17	38	45	*															0	
Test	11-13	20	5					*			0									
Test	14-17	20	5					*				0								
Laboratory notes and report	11-14	50	20									*				0				
Total:	-	208	100																	

Study module teaching form №. 3

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	N	28	24	0	208	260	10

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.
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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	10.	1	1	0
2.	1	1	0	11.	6	0	4
3.	1	0	0	12.	1	1	0
4.	1	0	2	13.	3	0	4
5.	1	0	0	14.	3	0	2
6.	1	0	2	15.	2	1	0
7.	1	0	2	16.	1	1	0
8.	1	1	0	17.	1	1	0
9.	1	1	0	18.	1	0	0
Total:					28	8	16

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

	№. 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
Exam	2-18	38	45	*										0						
Directed private laboratory work	2-14	16	5			*	0													
Test	2-10	20	5			*						0								
Test	11-13	20	5			*						0								
Oral presentation	2-17	40	10			*								*						
Laboratory notes and report	11-14	50	20			*								0						
Test	14-17	20	5			*								0						
Seminar	2-17	4	5			*								0						
Total:	-	208	100																	

Study module teaching form №. 4

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	N	28	24	0	208	260	10

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.
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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	10.	1	1	0
2.	1	1	0	11.	6	0	4
3.	1	0	0	12.	1	1	0
4.	1	0	2	13.	3	0	4
5.	1	0	0	14.	3	0	2
6.	1	0	2	15.	2	1	0
7.	1	0	2	16.	1	1	0
8.	1	1	0	17.	1	1	0
9.	1	1	0	18.	1	0	0
Total:					28	8	16

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
Directed private laboratory work	2-14	16	5			*	0													
Test	2-10	20	5			*						0								
Test	11-13	20	5			*						0								
Exam	2-17	38	45			*								0						
Laboratory notes and report	11-14	50	20			*								0						
Oral presentation	2-17	40	10			*								0						
Test	14-17	20	5			*								0						
Seminar	2-17	4	5			*								0						
Total:	-	208	100																	

Study module teaching form №. 5

Semester		Mode of studies	Structure				Total hours	Credits
			Theory	Seminars	Lab Works	Ind. work		
A	S	D	28	24	0	208	260	10

Languages of instruction:

Lithuanian	L	English	E	Russian	R	French	F	German	G	Other	Oth.
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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	10.	1	1	0
2.	1	1	0	11.	6	0	4
3.	1	0	0	12.	1	1	0
4.	1	0	2	13.	3	0	4
5.	1	0	0	14.	3	0	2
6.	1	0	2	15.	2	1	0
7.	1	0	2	16.	1	1	0
8.	1	1	0	17.	1	1	0
9.	1	1	0	18.	1	0	0
				Total:	28	8	16

Schedule of individual work tasks and their influence on final grade

[illegible]