



LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	S	274	M	047	Accredited until				Renewal date		
	Branch of Science		Progr.	Registr. №.							

Entitlement

Research Methods and Statistics

Prerequisites

Research methodology module for bachelor studies, bachelor studies

Main aim

On the basis of fundamental and applied scientific knowledge to provide students with skills and analyze, critically assess the social reality of the phenomena, developing the skills needed for research activities, to develop practical skills to plan studies, collect data, analyze them, and to provide scientific conclusions.

Provided knowledge and abilities

Student would be able:

- independently develop personal knowledge and capabilities, independently learn;
- to know and understand cognition of social sciences phenomenon.
- on the basis of fundamental and applied scientific knowledge to construct research design;
- to understand and critically analyse problems of research ethics.

Summary

The module covers topics related to the modern concept of science and the knowledge of the complexity of social reality. Scientific problem and hypotheses. Research validity and reliability issues. Sample and sampling procedures. Data collection methods in social sciences. Scientific article preparation. Research ethics issues.

Level of module

Level of programme		Subject group (under the regulation of the area)	Subject level
Cycle	Type		
Second	Master	Bendrojo universitetinio lavinimo	Applied

Group under financial classification

Syllabus

№.	Sections and themes	Responsible lecturer
1.	Features of modern science. Cognition of social phenomenon. Relation between social and biomedical sciences	33 prof. dr. Saulius Šukys
2.	Searching for research problem and research problem fomulation	33 prof. dr. Saulius Šukys
3.	Methodology of applying research methods. Validity and reliability.	33 prof. dr. Saulius Šukys
4.	Research sample and sampling.	33 prof. dr. Saulius Šukys
5.	Qualitative and quantitative research methods and data analyses	33 prof. dr. Saulius Šukys
6.	Introduction to SPSS. Research matrix. Scales of data, coding. Data arrangement and transforming	345 prof. habil.dr. Kazimieras Pukėnas
7.	Data arrangement and transforming	345 prof. habil.dr. Kazimieras Pukėnas
8.	SPSS possibilities for data presentation	345 prof. habil.dr. Kazimieras Pukėnas
9.	Statistical hypotheis testing. Parametric and non-parametric criterions	345 prof. habil.dr. Kazimieras Pukėnas
10.	Crosstabulation. Analysis of survey research.	345 prof. habil.dr. Kazimieras Pukėnas
11.	Questions reliability. Criterion of compatibility	345 prof. habil.dr. Kazimieras Pukėnas
12.	Correlation coefficient.	345 prof. habil.dr.

№.	Sections and themes	Responsible lecturer
		Kazimieras Pukėnas
13.	Factor analysis	345 prof. habil.dr. Kazimieras Pukėnas
14.	Regression. binary logistic regression, rank regression.	345 prof. habil.dr. Kazimieras Pukėnas
15.	Analysis of variance	345 prof. habil.dr. Kazimieras Pukėnas
16.	Cluster analysis	345 prof. habil.dr. Kazimieras Pukėnas
17.	Decision trees. Predictions with SPSS.	345 prof. habil.dr. Kazimieras Pukėnas
18.	Scientific publication	33 prof. dr. Saulius Šukys

Teaching/learning methods:

Interactive lecture, brainstorming, case studies, presentations, project work

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.	Cohen, L., Manion, L., Morrison, K. (2009). Research methods in education (6 ed.). London: Routledge.			No	
2.	Fischer, A., Tobi, H., Ronteltap, A. (2011). When Natural met Social: A Review of Collaboration between the Natural and Social Sciences. Interdisciplinary Science Reviews, 36 (4), 341-358			No	
3.	Zeide, B. (2010). Falsification and certainty. Int. Journal of Mathematical and Computational Forestry & Natural-Resource Sciences, 2 (2), 163-165			No	
4.	Carlson, M., Morrison, R. (2009). Study design, precision, and validity in observational studies. Journal of Palliative Medicine, 12 (1), 77-82			No	
5.	Polit, D. F., Beck, C. T. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. Research in Nursing & Health, 29, 489-497			No	
6.	Etchegaray, J.M., Wayne, J.M.E., Fischer, G. (2010). Understanding evidence-based research methods: reliability and validity considerations in survey research. Health Environments Research & Design Journal, 4(1), 131-135.			No	
7.	Creswell, J.W. (2016). 30 Essential skills for the qualitative researcher. Prieiga per internetą: study.sagepub.com/30skills			No	
8.	Veal, A.J., & Darcy, S. (2014). Research methods in sport studies and sport management: a practical guide. Oxon: Routledge.			No	
9.	Thomas, J.R., Nelson, J.K., & Silverman, S.J. (2015). Research methods in physical activity (7th edition). Human Kinetics: Champaign			No	
10.	Tourangeau, R., Conrad, F.G., Couper, M.P., & Ye, C. (2014). The effects of providing examples in survey questions. Public Opinion Quarterly, 78(1), 100-125.			No	
11.	O'Donoghue, P. (2010). Research methods for sports performance analysis. New York: Routledge. Prieiga internetu: https://www.researchgate.net/file.PostFileLoader.html?id...assetKey...			No	

№.	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		
12.	Sparkes, A.C., Smith, B. (2014). Qualitative research methods in sport, exercise and health. London: Routledge.			No	
13.	Garson, G.D. (2012). Univariate GLM, ANOVA, and ANCOV. Ahttp://faculty.chass.ncsu.edu/garson/PA765/anova.htm			No	

Additional literature

№.	Title
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Coordinating lecturer

Position	Degree, surname, name	Schedule №.
Professor	Prof. Dr. Saulius Šukys	33

Subdivision

Entitlement	Code
a	1006

Study module teaching form №. 1

Semester		Mode of studies	Structure				Total hours	Credits
			Lectures	Pract.	Lab.	Ind. work		
A	S	D	9	17	0	234	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		
	Lectures	P	L		Lectures	P	L
1.	1	0	0	10.	0	1	0
2.	1	1	0	11.	0	1	0
3.	2	2	0	12.	0	1	0
4.	1	2	0	13.	1	1	0
5.	1	1	0	14.	0	1	0
6.	0	1	0	15.	0	1	0
7.	0	1	0	16.	0	1	0
8.	0	1	0	17.	0	1	0
9.	1	0	0	18.	1	0	0
				Total:	9	17	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
Group Homework	2-5	22	10				*				0									
Individual Homework	2-5	22	10				*				0									
Exam	1-18	80	20				*												0	
Course project	2-6	35	20						*					0						
Control work	14	25	14							*						0				
Control work	11,13	25	14							*						0				
Control work	9,10	25	12							*						0				

[illegible]