



LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

Module Code	S	273	B	29C	Accredited until				Renewal date		
	Branch of Science		Progr.	Registr. №.							

Entitlement

Testing and Monitoring: From Collecting Data to Planning Training Interventions

Prerequisites

yes

Main aim

The main aims of this module are: i) to provide students with basic technical knowledge regarding the equipment needed to conduct performance testing, load monitoring and readiness assessment; ii) to provide students with practical competencies in correctly collecting data through performance testing and monitoring procedures; iii) to interpret and use such data with the aim of defining training objectives and developing training programs according to athletes' needs and the specific context of intervention.

Provided knowledge and abilities

At the end of this module, the student will gain basic knowledge on how to select testing/monitoring procedures based on their accuracy (validity, reliability) and practical value according to the specific sport (specificity, ecological validity);

At the end of this module, the student will gain knowledge on how to conduct testing/monitoring procedures in order to efficiently manage spaces, equipment and achieve good levels of consistency (i.e., procedure-related reliability);

At the end of this module, the student will be able to use data obtained from performance testing and monitoring to design and/or adapt training interventions based on the specific context.

Summary

In this applied module, students will gain practical expertise to extract data from testing procedures and use them to systematically structure training interventions targeting different aspects of the training process. Students will be provided with data-based principles to assist with the creation of a targeted program, considering the specific needs of athletes at different stages of the competitive season. This approach will include the assessment of athletes' physical and functional abilities, training loads and readiness using several testing and monitoring tools/procedures, followed by the creation of training programs based on such data.

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.	Strength testing and training planning (Testing isometric, dynamic, eccentric, power, and interpretation of the results)	
2.	Force-Velocity and Sprint velocity profiling (theory and practice)	
3.		
4.	Body composition testing: Students will be able to conduct body composition assessment using various methods (Skinfold measurements, Bioelectrical impedance)	
5.		
6.		
7.		
8.	Monitoring readiness, fatigue and recovery: Programming considerations (includes HRV, subjective monitoring such as well-being questionnaires, performance monitoring, etc.)	
9.		

Teaching/learning methods:

Theoretical lectures; Literature analysis; Practical classes; Laboratory-based classes; Data analysis;

Practical classes

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.	Haff, G. N., Triplett, T. (2016). NSCA's Essentials of Strength Training and Conditioning – 4th ed. Human Kinetics.		2	No	
2.	French, D., Torres Ronda, L. (2022). NSCA's Essentials of Sport Science. Human Kinetics.			No	
3.	Heyward, V. H., Gibson, A. L. (2018). Advanced Fitness Assessment and Exercise Prescription – 7th ed. Human Kinetics.			No	
4.	Tanner, R., Gore, C. (2012). Physiological Tests for Elite Athletes. Human Kinetics.			No	
5.	Morrow, J. R., Mood, D., Disch, J. G., Kang, M. (2016). Measurement and Evaluation in Human Performance – 5th ed. Human Kinetics.			No	
6.	Bompa, T. O., Buzzichelli, C. (2015). Periodization Training for Sports – 3rd edition. Human Kinetics.			No	
7.	Laursen, P., Buchheit, M. (2019). Science and Application of High-Intensity Interval Training: Solutions to the Programming Puzzle. Human Kinetics.			No	

Additional literature

№.	Title
1.	Bompa, T. O., Buzzichelli, C. (2019). Periodization: Theory and Methodology of Training. Human Kinetics.
2.	Halson, S. L. (2014). Monitoring training load to understand fatigue in athletes. Sports medicine, 44(Suppl 2), 139-147.
3.	Buchheit, M., & Laursen, P. B. (2013). High-intensity interval training, solutions to the programming puzzle: Part I: cardiopulmonary emphasis. Sports medicine, 43(5), 313-338.
4.	Young, W., Dos' Santos, T., Harper, D., Jefferys, I., & Talpey, S. (2022). Agility in invasion sports: Position stand of the IUSCA. International Journal of Strength and Conditioning, 2(1).
5.	Paul, D. J., Gabbett, T. J., & Nassis, G. P. (2016). Agility in team sports: Testing, training and factors affecting performance. Sports medicine, 46, 421-442.
6.	Cuenca-Garcia, M., Marin-Jimenez, N., Perez-Bey, A., Sánchez-Oliva, D., Camiletti-Moiron, D., Alvarez-Gallardo, I. C., ... & Castro-Pinero, J. (2022). Reliability of field-based fitness tests in adults: A systematic review. Sports Medicine, 52(8), 1961-1979.

Coordinating lecturer

Position	Degree, surname, name	Schedule №.

Subdivision

Entitlement	Code
Department of Coaching Science	2005

Study module teaching form №. 1

Semester	Mode of studies	Structure	Credits
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