Subject information sheet

University: *Comenius University in Bratislava*	
Faculty: *Faculty of Physical Education and Sport*	
Subject code:	**Subject title:** *Motor learning*
Type, range and method of educational activities: *1 hour of lectures* *Presence, if necessary combined or distance method*	
Number of credits: *3*	
Recommended semester/trimester of study: *1st–2nd semester*	
Degree of study: *II.*	
Course prerequisites:	
Conditions for completing the course: *Written test / oral exam (in the case of present form of a study)* *Evaluation:* *A - 100 to 93 points, B - 92 to 85 points, C - 84 to 77 points, D - 76 to 69 points,* *E - 68 to 61 points, FX - 60 points or less* *Students are required to maintain a minimum of 80% attendance of scheduled classes in order to pass the course.*	
Learning outcomes: *Students will become familiar with theory of motor control and learning. They will be able to apply the knowledge acquired in sport and physical education practice. They will develop skills needed for specification of individuality in motor learning in a selected sport with respect to age, level of physical fitness and specialization.*	
Brief course contents: *1. Theory of motor control in humans.* *2. Theory of motor learning.* *3. Application of motor learning principles in sport and physical education practice.* **Detailed course contents:** *Topic 1 and outlines* *Motor learning – the subject, history, basic terminology. Principles and patterns. Research in the field of human motor control.* *Topic 2 and outlines* *The relationship between capabilities, abilities and skills. Characteristics and classification of skills. Individual differences and performance.* *Topic 3 and outlines* *Sensory and motor components of skills. Information processing and motor response programming phases. Hick's law.* *Topic 4 and outlines* *Open-loop and closed-loop systems within the conceptual model of motor control and their components. Examples of experiments (e.g., Henry and Rogers experiment).* *Topic 5 and outlines*	

Motor programs and their modifications.
Determinants of accuracy in rapid movements. Fitts' law. Relative timing and movement accuracy.

Topic 6 and outlines
Basic concept, objectives and types of motor learning.

Topic 7 and outlines
Motor learning phases.

Topic 8 and outlines
Methods of learning motor skills. Examples of experiments (napr. Graw's experiment on optimal practice-rest ratios).
Types of feedback and their application in motor learning.

Topic 9 and outlines
Assessment of progress in motor learning. Learning curves. Retention tests.

Topic 10 and outlines
Acute and short-term body response to exercise and adaptive changes over the course of motor learning.

Topic 11 and outlines
Applications of motor learning principles in physical education classes, athletic training and health-oriented exercise programs.

Topic 12 and outlines
The specificity of motor skills learning in children and youth. The specificity of motor skills learning in athletes of different specializations. Examples of motor skills learning in selected sports.

Topic 13 and outlines
Fulfilling course requirements.

Recommended literature:
DAVIDS, K. et al. Dynamics of skill acquisition: A constraints-led approach. Champaign, IL: Human Kinetics, 2008.
SCHMIDT, R. A. et al. Motor control and learning: A behavioral emphasis. Champaign, IL: Human Kinetics, 2018.
SCHMIDT, R. A., LEE, T. D. Motor learning and performance: From principles to application. Champaign, IL: Human Kinetics, 2019.
WULF, G. Attention and motor skill learning. Champaign, IL: Human Kinetics, 2007.

Language, knowledge of which is necessary to complete the course:
English

Notes:

Evaluating history:
Total number of evaluated students: *0*

A	B	C	D	E	FX

Lecturer:. *Prof. Mgr. Erika Zemková, PhD.*

Last modification:

Supervisor:
prof. Mgr. Erika Zemková, PhD., doc. PaedDr. Branislav Antala, PhD.