Study program: Sport

Type and level of studies: Basic professional studies

Course title: PHYSIOLOGY OF PHYSICAL ACTIVITY

**Lecturer or lecturers (**for lectures**):** Ilić Ž. Vladimir

Lecturer or lecturers (for practice): Ilić Ž. Vladimir, Djurić B. Branka

Course status: Obligatory

ECTS: 7
Condition: None

### **Course objectives:**

The objective of the course is to introduce students to the physiological processes that take place in the body at various intensities and types of sports activities. To get acquainted with tests to assess physical fitness. Based on the adopted theoretical and practical information and knowledge, they can adequately devise the training process, both for athletes and for those who are recreational in physical activity.

### **Course outcome:**

A student who has successfully mastered the program in this subject should know the functioning of certain systems that are dominant in the course of physical activity, primarily the cardiovascular, respiratory and locomotor systems. To understand the interconnectedness of the intensity of loads in sports activity as well as the reaction of certain organic systems. It is necessary for the student to master the tests that are applied during the training process and that, based on the results of the tests, he / she follows the influence of the training process on the work ability.

## **Contents description:**

Theoretical teaching

Reactions of individual organic systems during various physical activities: 1. body fluids, 2. kidneys, 3. blood, 4. heart-system, 5. respiratory system, 6. muscular system, 7. nervous system, 8. energy processes, 9. physical working ability, 10. Thermoregulation.

Practical teaching

Monitoring of changes in cardio-respiratory parameters during work and recovery, 2. Daglas-Holdan method for determining oxygen consumption, 3. Oxygen demand during and without stable condition, 4. Tests for estimating maximum oxygen consumption: Astrand and PVC test, 5. Dynamometry.

#### **References:**

1.Nikolić, Z. (2003): Fiziologija fizičke aktivnosti (Physiology of Physical Activity). FVFS, Belgrade 2.Ilic, N. (2006): Fiziologija sporta (Physiology of sport - for students of the College of Sports Coaches), SIA, Belgrade

3.Ilic, N. (2008): Praktikum iz fiziologije (Practicum in Physiology). SZGR `` Joksimović``, Belgrade 4.Guyton, AS. (2003): Medicinska fiziologija (Medical physiology). Contemporary Administration, Belgrade

5. Wilmore, JH., Costill, DH., and Kenney WL. Physiology of sport and exercise. 4th ed., Human Kinetics, Champagn, USA

No. of active cl	Other classes:			
Lectures:	Exercises/	Other forms of teaching:	Study research	
3	Practical classes:		work:	
	2			

# **Teaching method**

Lectures. Presentation of seminar papers. Measurement of physiological parameters during work; tests.

Knowledge assessment (maximum score 100)

Exam prerequisites	points	Final examination	points		
Class Activities	5	Written examination	40		
Practical instruction	15	Oral examination			
Preliminary exam / Colloquium	30				
Seminar	10				