Name of the course: APPLIED RESEARCH'S IN PHYSIOLOGY OF PHYSICAL ACTIVITY

Teacher(s): Vladimir Z. Ilic

Course status: Elective

Number of ECTS points: 10

Requirement: None

Course objective is to obtain comprehensive knowledge from selected areas of exercise physiology, and to explore in details functional response of organs and organ systems to various training stimuli, as well as changes in environmental conditions.

Outcome of the course is to enable a student who has successfully overcome the program to understand the complex nature of processes that occur in the body during physical exertion, which will allow them in later professional careers to design training strategies to improve morpho-functional and motor skills of healthy ones and subjects with disabilities. They will also obtain theoretical and practical knowledge that will help them to develop a solid foundation for designing studies which task is to measure and monitor the functional work capacities of the respondents.

Content of the course will include theoretical and practical classes where the analysis and synthesis of information obtained from specialized literature and scientific research papers will cover the areas of energy transformations and physiology of the cardiorespiratory, muscular and neuroendocrine system, as well as the impact of high and low external temperature and atmospheric pressure.

Recommended literature

- 1. Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2015). Physiology of sport and exercise. Human kinetics.
- 2. Powers, S. (2014). Exercise physiology: Theory and application to fitness and performance. McGraw-Hill Higher Education.
- 3. Mougios, V. (2019). Exercise biochemistry. Human Kinetics Publishers.
- 4. Housh, T. J., Housh, D. J., & DeVries, H. A. (2017). Applied Exercise and Sport Physiology, With Labs. Taylor & Francis.

Number active classes	Theory: 4	Practice:
Course delivery methods		
Lectures, individual work and work in small groups, seminar papers.		
Knowledge assessment (maximum number of points 100)		
Activity during the lecture - 30		
Seminar paper - 30		
Final exam - 40		
Testing ways may vary: written exams, project presentation, seminars		
*maximum length 1 A4 page		