

<b>Name of the course:</b> APPLIED RESEARCH IN BIOMECHANICS AND MOTOR CONTROL		
<b>Teacher(s):</b> Ilic B. Duško, Mrdaković D. Vladimir		
<b>Course status:</b> Elective		
<b>Number of ECTS points:</b> 10		
<b>Requirement:</b> none		
<b>Course objective:</b> Introducing students to the application of proven research methods, using modern high-quality diagnostic equipment, in testing existing and modeling new theoretical laws in the field of Biomechanics and Motor control, with which can student learn, describe, remodel and define the laws that: a) determine human movement and b) describe the process of motor learning. On the other hand, from the perspective of muscular abilities and brain control mechanisms in sport, rehabilitation and developmental movements, the understanding of complementarity and causal consequences in relation to different management levels.		
<b>Outcome of the course:</b> By fulfilling all the obligations provided by the subject, students should: 1) be acquainted with the possibilities of using modern diagnostic equipment in order to examine existing or newly emerging research problems; 2) acquire the habit of observing human movement and the process of motor learning through the application prism of existing laws in the field of Biomechanics and Motor control; 3) Successfully transfer the acquired knowledge in improving the efficiency and cost-effectiveness of diagnostic monitoring procedures and the process of analysis of motor learning and human movement.		
<b>Content of the course:</b> A historical review of the most influential international journals and researchers in the field of Biomechanics and Motor control. Introduction to modern forms of diagnostic monitoring of certain aspects of human anthropological status. Immediate implementation of diagnostic procedures. Analysis of the obtained results. Critical review and remodeling of basic, complex and derived forms of human movement through the application of new methods of motor learning and existing biomechanical laws.		
<b>Recommended literature</b> 1. Motor learning and performance, Richard A. Schmidt and Craig A. Wrisberg, Third Edition, 2004. 2. Motor control, theories, experiments and applications, Frederic Danion and Mark L. Latash, First edition, 2011. 3. Biomechanics, principles and applications, Daniel J. Schneck and Joseph Bronzino, Second edition, 2003.		
Number active classes	Theory: 4	Practice:
<b>Course delivery methods</b> Lectures, laboratory work		
<b>Knowledge assessment (maximum number of points 100)</b> Activity during lectures 10 Colloquium 42 Written exam 28 Oral exam 20		
Testing ways may vary: (written exams, oral exams, project presentations, seminars, etc. ....)		
*maximum length 1 A4 page		