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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | **Faculty of Sport and Physical Education** | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Specialist Professional Studies, Sport** | | |
| Study Module (if applicable) | | | |  | | |
| Course title | | | | Biomechanics of sport | | |
| Level of study | | | | ☒Specialist professional ☐ Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory ☒ Elective | | |
| Semester | | | | ☐ Autumn ☒Spring | | |
| Year of study | | | | First | | |
| Number of ECTS allocated | | | | 6 | | |
| Name of lecturer/lecturers | | | | Ratko Stanković, Ph.D, full professor; Saša Bubanj, Ph.D, associate professor | | |
| Teaching mode | | | | ☒Lectures ☒Group tutorials ☐ Individual tutorials  ☐Laboratory work ☐ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☒ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Competent students with understanding and application of the basics of the functioning of the locomotor system in human movement primarily in different sports activities.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| **Theory: Notion and significance of the biomechanics of sport. Biomechanical principles and research methods in sport. Functional anatomy. Physiological characteristics of the skeletal muscles. Types of muscles contractions. Muscle functioning. Torque of muscle force. Muscle fatigue. Muscle force as a vector. Classification of the force system. Linear force system. Paralel forces in one plane. Resultants: gravity of body determination. Concordance of forces. Dissipation of forces. General force system. Kinematics of locomotor system. General division of complex movements. Linear, curving and central movements. Dynamics of locomotor system. Practicals: Gravity of human body. Proportions of human body in frontal plane – model design. Proportions of human body in sagittal plane – model design. Goniometry – software MAT. VII; Kinematics - software KA VIDEO and HUMAN. Dynamometrics – software Myotest; Dinamometrics –software Tensiometrics platform.** | | | | | | |
| **LANGUAGE OF INSTRUCTION** | | | | | | |
| ☒Serbian (complete course) ☒ English (complete course) ☒ Other French and Spanish (complete course)  ☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |
| **ASSESSMENT METHODS AND CRITERIA** | | | | | | |
| **Pre exam duties** | **Points** | | **Final exam** | | | **points** |
| **Theory + Practicals** | **10** | | **Final examination** | | | **30** |
| **Colloquium1** | **25** | |  | | |  |
| **Colloquium 2** | **25** | |  | | |  |
| **Seminar paper** | **10** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |