

NAME OF THE COURSE		Exercise physiology				
Code		Year of study	1 st year of graduate studies			
Course teacher	Assistant professor, Zoran Nikolovski PhD	Credits (ECTS)	3			
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			30	15		
Status of the course	Elective	Percentage of application of e-learning	20%			
COURSE DESCRIPTION						
Course objectives	<p>To improve understanding of the physiological processes in human body during work and exercise</p> <p>To understand importance of exercise physiology in the training prescription and performance optimization</p> <p>To recognize importance of exercise physiology in physical activity for health and fitness</p>					
Course enrolment requirements and entry competences required for the course	<p>General Physiology and Anatomy</p> <p>Intermediate knowledge of English language</p>					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>At the completion of this course, students will be able to do the following:</p> <ul style="list-style-type: none"> - to expand specific knowledge in the field of exercise physiology; - to understand physiological response to exercise and apply this knowledge in exercise prescription; -to critically evaluate methodologies in scientific experimentations; - to understand how to transfer knowledge gained in laboratory experimentation to the field environment 					
Course content broken down in detail by weekly class schedule (syllabus)	Seminar		Teacher			
	Fundamentals of exercise physiology (2 hour).		Assistant professor, Zoran Nikolovski MD PhD			
	Bioenergetics for movement (4 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Skeletal muscle and contraction (4 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Pulmonary adaptations to exercise (4 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Cardiovascular adaptations to exercise (5 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Integrated neural and hormonal control of exercise (4 hour).		Assistant professor, Zoran Nikolovski MD PhD			
	Nutrition and ergogenic aids for sports performance (5 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Training for performance (5 hour).		Assistant professor, Zoran Nikolovski MD PhD			

	Exercise and environment (4 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Energy balance, body composition and health (4 hours).		Assistant professor, Zoran Nikolovski MD PhD			
	Disease and exercise prescription for health (4 hour).		Assistant professor, Zoran Nikolovski MD PhD			
Format of instruction	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input checked="" type="checkbox"/> partial e-learning <input type="checkbox"/> field work		<input type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			
Student responsibilities	Course attendance, homework through active learning, exam					
Screening student work (<i>name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course</i>)	Class attendance	1	Research	0.5	Practical training	
	Experimental work		Report	0.5	(Other)	
	Essay		Seminar essay	0.5	(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project	0.5	(Other)	
Grading and evaluating student work in class and at the final exam	<p>The final grade is defined on a basis of sub-grades and final oral exam.</p> <p>Sub grades are earned throughout homework exams carried out during the course, each consisting of</p> <ul style="list-style-type: none"> -having group discussion of the topics heard at the theoretical classes, -evaluate and analyze each theoretical class in groups and present them before next theoretical class -teaching other students of topics from syllabus, -having group discussions and understanding of scientific papers <p>Each activity is evaluated separately and grades are cumulative sum of all activities.</p> <p>Oral exam is mandatory only if student wants to earn the grade 5 (excellent)</p>					
Required literature (available in the library and via other media)	Title			Number of copies in the library	Availability via other media	

Optional literature (at the time of submission of study programme proposal)			
Quality assurance methods that ensure the acquisition of exit competences	Attendance and active learning grades. Research, reports, seminar essays Oral examination at the end of the classes (occasionally). External evaluation of teaching quality through 'Questionnaire for student's evaluation of teaching'.		
Other (as the proposer wishes to add)			