



Study program: Integrated Academic Studies in Pharmacy			
Course title: Safety of Supplement Consumption in Sports			
Teacher: Vladimir Pilija, Budimka Novakovic			
Course status: Elective			
ECTS Credits: 3			
Condition: -			
Course aim The programme introduces students with sport supplementation and legal regulation, rational sports supplements, risks of abuse and unwanted effects for the care of athletes and recreational players.			
Expected outcome of the course: This programme will introduce students with action mechanisms of dietary supplements and its rational use, risks of the use of unauthorized substances by athletes and recreational players. Furthermore, the programme allows the students to understand better doping resources, taking biological materials for chemical and toxicological analysis due to its legal regulations and regulation the use of dietary supplements in sports.			
Course description <i>Theoretical education</i> Dietary supplements - definition, division, legal regulation Energy drinks Vitamins. Minerals and phytochemicals Natural substances containing plant components Proteins ("for the mass", whey proteins and plant proteins) Amino acids Enzymes NO reactors Creatine Fat burners and stimulants (L-carnitine, caffeine and clenbuterol) Carbohydrates: glucosamine, chondroitine sulphate, glycerol Natural hormone stimulants (tribulus terrestris) Hormones (anabolic steroids and GH) Doping control and list of prohibited doping drugs in sports Healthy safety of dietary supplements <i>Practical education</i> Independent drafting of nutrition for recreational and professional athletes regarding to the goals set in sports activities. Independent selection and prescription of dietary supplements depending on gender, age and eventual diseases in recreational sport activities.			
Literature <i>Compulsory</i> 1. Smolin LA, Grosvenor BM, editors. Nutrition for sports and exercise. 2nd ed. Hoboken, NJ: John Wiley&Sons; 2010. <i>Additional</i> 1. Dorfman L. Nutrition in exercise and sports performance. In: Mahn K, Raymond LJ editors. Food&the nutrition care process. 14th ed. St. Louse (Mo): Elsevier INC; 2017. pp.426-55. 2. Position of the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine: nutrition and athletic performance. Can J Diet Pract Res. 2016;77(1):54. 3. Williams MH. Sports Nutrition. In: Ross CA, Caballero B, Cousins RJ, Tucker KL, Ziegler TR, editors. Modern nutrition in health and disease. 11th ed. Baltimore, US: Lippincott Williams & Wilkins; 2014. p. 1559-63.			
Number of active classes	Theoretical classes: 30	Practical classes: 15	
Teaching methods			
Student activity assessment (maximally 100 points)			
Pre-exam activities	points	Final exam	points

Lectures	10	Written	
Practices		Oral	60
Colloquium	30	
Essay			