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| **Course code: FFS53** | **Course: SELECTED TOPICS IN TOXICOLOGICAL CHEMISTRY: MISUSE OF DRUGS IN SPORT** |
| **Level: Integrated study** | **Year: IV (Fourth)**  | **Semester: VII (seventh)**  | **ECTS credits: 2 (two)**  |
| **Status: Elective** | **Hours per week:** **LECTURES (L): 1 (one) hour****SEMINARS (S): 1 (one) hour**  | **Total hours per semester : 30****(L: 15; S: 15)**  |
| **Academic staff:**  | Theoretical class: Prof. dr Miroslav Šober Prof. dr Aleksandra Marjanović Doc. dr Elma Omeragić |
| **1. Course aims** | Introduction with history of use ergogenic compounds in sport, role of the international organizations (International Olimpic Comittee, International sport associations and World Antidoping Agency) in preventing misues of farmacological active compounds, and methods and procedures in sport. Review of most important classes of forbidden supstances and methods from the WADA list, learning about mechanism of action and reasons for misues, side effects and methods for their detection and determination, in order to prevent use of doping is sport. Through seminars students are encouraged for individual work or work in small groups for solving particular problems related to doping in sport.  |
| **1.1. Content of the course**  |
| **a) Theoretical class**History of doping; Regulatory aspects, World Antidoping Agency; Sampling and doping control; Doping control through the national sport associations and during the competitions; Substances permanently prohibited in sport: anabolic steroids, selective modulators of androgen receptors, agonists and hormon modulators, beta adrenergic agonists, polypetides; Prohibited methods: blood doping; compounds that enhance oxigen transport, gene doping; Tampering agents; Substances prohibited in-competition and Substances prohibited in particular sports. |
| **b) Practical class (exercises)****Not applicable**  |
| **1.3. Results**  | Knowledge applicable in sports Pharamcy and public health system, but also students are able after graduation to actively take part in regulatory agencies (Antidoping Agency), sport associations and associations for promotion of health in sport and sport without doping.  |
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| **2. Organization of classes**  |
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| ***Description of activities (%)*** |
| **2.1. Way of performing classes**  | 1. lectures, all students in class 2. Public defense of seminars, coments and disscusion in class  | 1. 50,0 % 2. 50,0 %  |
| Components (%) of grades |
| **2.2. Grade description** | 1. Seminars 2. Teoretical exam | 1. 0-40 % 2. 0-60 %  |
| **3. LITERATURE**  |
| **Mandatory :** * Notes from the lectures and presentation handouts
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| **Additional:** * David, P. A Guide to the World Anti-doping Code. Cambridge University Press, 2008.
* Waddington, I. and Smith, A. An Introduction to Drugs in Sport. Routledge, Taylor and Francis Group, 2009
* Lenehan, P. Anabolic steroides and other performance-enhancig drugs. Taylor and Frances, 2004

**Web pages:** * World Antidopig Agency (WADA) http://www.wada-ama.org/en/
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