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| **Course code:**  **\*** | **Course title:**  **SELECTED TOPICS IN PHARMACOLOGY – FIXED-DOSE COMBINATIONS** | | |
| **Level:**  **Undergraduate** | **Year:**  **III** | **Semester:**  **V** | **ECTS credits:**  **2** |
| **Status:**  **Elective** | **Number of hours weekly:**  **1+1** | | **Total hours of teaching: 30** |
| **Teaching staff:** | Fahir Bečić, PhD, full professor  Nermina Žiga-Smajić, PhD, assistant professor  Belma Pehlivanović, MPharm, teaching and research assistant  Dina Lagumdžija, MPharm, teaching and research assistant | | |
| **1. Course objectives:** | Introducing students to the basics needed for their future practical work as pharmacists, in terms of having adequate knowledge of special pharmacology for proper prescribing and control of drugs. | | |
| **1.1. Curriculum:**  **a) Lectures:**  Pharmacology of fixed-dose combinations. Pharmacology of fixed-dose combinations for the treatment of hypertension in adults. Pharmacology of fixed-dose combinations for the treatment of hypertension in children. Pharmacology of fixed-dose combinations for the treatment of diabetes mellitus in adults. Pharmacology of fixed-dose combinations for the treatment of diabetes mellitus in children. Pharmacology of fixed-dose combinations for the treatment of bacterial infections. Pharmacology of highly variable drugs.  Clinical trial problems during bioequivalence studies of highly variable drugs. Bioequivalence studies of generic formulations of proton-pump inhibitors. Modified-release dosage forms. Oral contraceptives in small doses as highly variable drugs. Legal regulations for highly variable drugs. Monitoring of highly variable drugs.  **b) Practical work:**  Pharmacology of fixed-dose combinations (seminar). Pharmacology of fixed-dose combinations for the treatment of hypertension in adults (case study). Pharmacology of fixed-dose combinations for the treatment of hypertension in children (case study). Pharmacology of fixed-dose combinations for the treatment of diabetes mellitus in adults (case study). Pharmacology of fixed-dose combinations for the treatment of diabetes mellitus in children (case study). Pharmacology of fixed-dose combinations for the treatment of bacterial infections (case study). Pharmacology of highly variable drugs (seminar). Clinical trial problems during bioequivalence studies of highly variable drugs (case study). Bioequivalence studies of generic formulations of proton-pump inhibitors (case study). Modified-release dosage forms (seminar). Oral contraceptives in small doses as highly variable drugs (case study). Legal regulations for highly variable drugs (seminar). Monitoring of highly variable drugs (seminar). | | | |
| **1.2. Learning outcomes:** | Students are expected to gain skills and knowledge in contemporary theoretical propositions in the field of pharmacology as well as techniques and skills for experimental work. | | |
| **2. Course organization:** | | | |
| **2.1. Structure of the course:** | 1. Lectures  2. Practical work, case studies and seminars | | 1. 50%  2. 50% |
| **2.2. Grading:** | 1. Attendance and participation in classes  2. Homeworks  3. Colloquiums, programs, seminars, presentations  4. First term (partial) exam (first colloquium)  5. Second term (partial) exam (second colloquium)  6. Final oral exam | | 1. 5%  2. 10%  3. 10%  4. 20%  5. 20%  6. 35% |
| **3. Literature:** | | | |
| Mandatory:   1. Rang, H.P., Dale, M.M., Ritter, J.M. and Moore, P.K. eds., (2009). Pharmacology. 7th ed. London: Churchill Livingstone.   Additional:   1. Katzung, B.G., Masters, S.B. and Trevor, A.J. eds., (2012). Basic and Clinical Pharmacology. 12th ed. New York: McGraw Hill. | | | |