

## KÖVETELMÉNYRENDSZER

<b>Semmelweis University</b> <b>Faculty of Medicine</b>	Oktatási szervezeti egység megnevezése: Department of Pharmacology and Pharmacotherapy
<b>Tantárgy neve:</b> Pharmacology I, II. <b>Tantárgy típusa:</b> Kötelező <b>kódja:</b> FOKOFRM...., FOKOFRM.... <b>kreditértéke:</b> 4 (7 <sup>th</sup> semester), 4 (8 <sup>th</sup> semester)	
<b>Tantárgy előadójának neve:</b> László Köles, MD, PhD, Associate Professor	
<b>Tanév:</b> 2019/2020.	
<b>A tantárgy feladata a képzés céljának megvalósításában:</b>  Pharmacology deals with the effects, mechanisms of actions, adverse effects, interactions and clinical administration of drugs used in the clinical practice as well as with their fate in the body. It also specifies the rules of prescription writing. It is based on and synthesizes the knowledge of basic, pre-clinical and clinical subjects such as physiology, biochemistry, oral pathology and internal medicine.	
<b>A tárgy tematikája (heti bontásban):</b> 1 <sup>st</sup> semester  <ol style="list-style-type: none"><li>1. Introduction to pharmacology. Pharmacodynamics I.</li><li>2. Pharmacokinetics. Pharmacodynamics II.</li><li>3. Basics of the neurotransmission of autonomic nervous system. Parasympathomimetics. Parasympatholytics.</li><li>4. Skeletal muscle relaxants. Sympathomimetics.</li><li>5. Sympatholytics. Pharmacology of the respiratory tract</li><li>6. Local anesthetics. General anesthetics.</li><li>7. Antidepressants and antimanic drugs. 1<sup>st</sup> midterm exam, prescription writing</li><li>8. Anxiolytics, sedative-hypnotics. Antiepileptics</li><li>9. Antipsychotics. Drugs for neurodegenerative diseases, nootropic drugs.</li><li>10. Basic principles of the antibiotic therapy. Penicillins. Carbapenems, monobactams. <math>\beta</math>-Lactamase inhibitors. Cephalosporins, glycopeptide antibiotics and other cell wall damaging antibiotics.</li><li>11. Antibacterial drugs II. Protein synthesis inhibitors: 50S- Macrolides, ketolides, lincosamides, streptogramins, linezolid, chloramphenicol. 30S- Aminoglycosides, tetracyclines, glycylicyclines. Other antibiotics: metronidazol, nitrofurantoin</li><li>12. Antibacterial drugs III. DNA gyrase inhibitors, antifolates. Antiprotozoal drugs. 2<sup>nd</sup> midterm exam, prescription writing.</li><li>13. Antituberculosics. Antifungal and antihelminthic drugs. Disinfectants and antiseptics</li><li>14. Antiviral drugs. Consultation, prescription writing.</li></ol> 2 <sup>nd</sup> semester <ol style="list-style-type: none"><li>1. Anticoagulants. Inhibitors of platelet aggregation, fibrinolytics, treatment of bleeding. Drugs acting on erythropoiesis.</li><li>2. Diuretics. Antihyperlipidemic drugs. Drugs used in the treatment of peripheral vascular diseases. Local circulation improving drugs. Prescription writing</li><li>3. Inhibitors of the renin-angiotensin-aldosterone system. Calcium channel blockers and other vasodilators. Antiarrhythmic drugs.</li></ol>	

4. Treatment strategy of ischemic heart disease, congestive heart failure and hypertension. Nitrates and positive inotropic drugs.
5. Drugs acting on glucose homeostasis, parenteral antidiabetic preparations. 1<sup>st</sup> midterm exam. Prescription writing.
6. Oral antidiabetics. Drugs influencing the thyroid function. Smooth muscles relaxants. Drugs influencing uterus function.
7. Drugs acting on bone homeostasis. Hypothalamic and pituitary hormones. Sexual hormones and contraceptives.
8. Gluco- and mineralocorticoids. Non-steroidal antiinflammatory drugs and further non-opioid analgesics. Drugs used in the treatment of gout.
9. Opioids. Drugs of abuse.
10. Drugs used in the treatment of peptic ulcer and reflux disease. Pharmacology of digestion, liver and biliary tract. Drugs used in diarrhea and constipation.
11. Histamines and antihistamines. Antiemetic agents. 2<sup>nd</sup> midterm. Prescription writing.
12. Anticancer therapy. Cytotoxic agents. Cytostatic agents.
13. Immunopharmacology. Treatment of rheumatoid arthritis, inflammatory bowel disease (IBD). Drugs used in the treatment of migraine.
14. Toxicology in the dental practice. Consultation. Prescription exam.

**A foglalkozásokon való részvétel követelményei és a távolmaradás pótlásának lehetősége:**

The attendance of a minimum of 75 % of lectures and practices is necessary for the end term signature of the semester (according to Examination and Studies Regulations). Replacement of classes is not offered by the department automatically. Nevertheless, if the number of absences exceeds the critical limit due to health problems (in this case medical certification is necessary), the student can ask for consultation once in a semester. If this request is accepted, this consultation can replace one not-attended regular class in a semester. The students exceptionally also can attend the classes of other seminar groups in the same week.

**Az igazolás módja a foglalkozásokon és a vizsgán való távollét esetén:**

With the exception of ask for consultation in case of exceeding the critical number of absences (see above) no certification of the reason being absent from the practices and lectures is needed.

In case of not attending the exam we act according to the Examination and Studies Regulations.

**A félévközi ellenőrzések (beszámolók, zárthelyi dolgozatok) száma, témaköre és időpontja, pótlásuk és javításuk lehetősége:**

Two midterm tests will be organized during both semesters. The results of the midterms may influence the final grade of the semifinal or final exam ( $\pm$  half grade). The participation is not obligatory, and so we do not offer the possibility to repeat or rewrite it. The students are informed about the detailed schedule and topics of the midterms at the beginning of the semester.

**A félév végi aláírás követelményei:**

The attendance of a minimum of 75 % of lectures and practices is necessary for the end term signature.

**Az osztályzat kialakításának módja:**

The exam grade is determined by exam performance.

The oral semi-final exam is conducted by the lecturer of the practice. The final examination is conducted by leading instructors (Associate Professors and Professors), but the department chair may allow (by recommendation of the dean) the participation of senior lecturers. In both exams one question from each question list have to be drawn. A previous written prescription writing exam at the lecturer of the practice is the part of the final exam.

If the student fails at any parts of the exam, the evaluation (grade) of the whole exam is “failed”. Only in case of semi-final exam there is a possibility to offer the semifinal mark: (please, refer to The Study and Examination Policy Faculty of Medicine, Dentistry and Pharmacy (shortly Study Policy) Section 17 point 12): If the results of the first two midterms (written tests) reach minimum 80%, the student receives the possibility to take the third midterm (oral exam) during the last week of the study period. The topics of the third midterm cover the whole material of the semester. In case the result of this midterm is four or five the Head of Department may offer this mark as the acknowledgment of the student’s performance during the semester.

**A vizsga típusa:**

Oral **semi-final exam**, at the end of the 7<sup>th</sup> university semester (from the topics of Pharmacology I.).

Oral **final exam** (from the topics of the whole subject – Pharmacology, Toxicology I-II) at the end of the 8<sup>th</sup> university semester. A previous written prescription writing exam at the lecturer of the practice is the part of the final exam.

**Vizsgakövetelmények:**

**Semi-final exam (7th semester):** testing of the student in a subject of the 1st Pharmacology semester.

**Final exam (8th semester):** testing of the student in a subject of both semesters – the entire subject of Pharmacology, Toxicology I-II., including a previous written prescription writing exam.

**A vizsgajelentkezés módja:**

In the NEPTUN system.

**A vizsgajelentkezés módosításának rendje:**

In the NEPTUN system, according to the Examination and Studies Regulations.

**A vizsgáról való távolmaradás igazolásának módja:**

According to the Examination and Studies Regulations.

**A tananyag elsajátításához felhasználható jegyzetek, tankönyvek, segédletek és szakirodalom listája:**

**TextBook :**

B. Katzung: Basic and Clinical Pharmacology, McGraw-Hill Education, 2018, ISBN: 978-1-259-64115-2

**Further study material:**

On the homepage of the department: <http://semmelweis.hu/pharmacology/graduate-education/faculty-of-dentistry/>

