

2024/2025. ACADEMIC YEAR

PROGRAM OF STUDY (FOR STUDENTS OF 4TH YEAR)

Full (Hun) name of the subject: Gyógyszerhatástan és toxikológia (elmélet) II.
Gyógyszerhatástan és toxikológia (gyakorlat) II.,

Program: Undivided program (pharmaceutical)

Schedule: full-time

Short name of the subject: Pharmacology II.

English name of the subject: Pharmacology and Toxicology (theory) II.
Pharmacology and Toxicology (practice) II.,

German name of the subject: Pharmakologie und Toxikologie (Vorlesung) II.
Pharmakologie und Toxikologie (Praktikum) II.,

Type of registration: obligatory

Neptun code of the subject: GYKGYH086E2A, GYKGYH086G2A

Responsible Department: Semmelweis University, Department of Pharmacodynamics.

Responsible tutor

Dr. Tamás Tábi

Title, academic degree:

Associate Professor, PhD

Contact information:

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Name of the persons responsible for the teaching of the subject:

Dr. Éva Szökő
Dr. György Bagdy
Dr. László Tóthfalusi
Dr. Tamás Tábi
Dr. Rudolf Laufer
Dr. Kinga Gecse
Dr. Fruzsina Bagaméry
Dr. Péter Lakatos
Dr. Szabolcs Koncz
Dr. Kamilla Varga

Title, academic degree:

Full Professor, DSc
Full Professor, DSc
Full Professor, DSc
Associate Professor, PhD
Assistant lecturer
Assistant lecturer, PhD
Assistant lecturer, PhD
Resident Lecturer, PhD
Resident Lecturer
Resident Lecturer

Class per week: 3 hours lectures
2 hours practice

Credit point(s): 3credits lectures
2credits practice

Professional content, intent of acquirement and it's function in order to implement the goals of the program:

Understanding the mechanism and effect of drugs.

Short description of the subject:

The course introduces students to the mechanisms of action of drugs, their side effects and interactions, and the basics of their therapeutic applications.

Detailed discussion of the pharmacological properties of drugs affecting the central nervous system, the immune system, and inflammation.

Course data

Recommended term	Contact hours (lecture)	Contact hours (practice)	Contact hours (seminar)	Individual lectures	Total number of contact hours/semester	Normal course offer	Consultations
7th semester	42	28	-	-	70	<u>Autumn semester*</u> Spring semester Both semesters (* Please underline)	-

Program of semester**

Topics of theoretical classes (pro week):

1. Glucocorticoids Vaccination
2. Introduction to immunopharmacology Immunosuppressants and pharmacology of transplantation
3. DMARD and other specific antiinflammatory drugs Immunomodulators
4. Pharmacology of the respiratory system Antihistamines
5. Nonsteroidal anti-inflammatory drugs Drugs of gout and osteoarthritis
6. Chemical neurotransmission in the CNS Anxiolytic and hypnotic drugs
7. Drugs used in affective disorders. Drugs of migraine
8. Antipsychotic drugs
9. Antiepileptics and centrally acting muscle relaxants
10. Pharmacology of Alzheimer's disease, ALS, Parkinson's disease and Huntington's disease
11. Opioids, Drugs of neuropathic pain
12. General and local anesthetics
13. Drug addiction, dependence and abuse. CNS stimulants, hallucinogenics, cannabinoids, nicotine, alcohol
14. Drug interactions Harmful effects of drugs

Topics of practical classes (pro week):

1. Repetition. Understanding of SmPC
2. Glucocorticoids
3. Immunopharmacology
4. Antiinflammatory drugs
5. Respiratory pharmacology. Antihistamines
6. NSAIDs. Drugs of gout and osteoarthritis
7. Midterm exam 1
8. Anxiolytics, antidepressants
9. Antipsychotics. Lithium.
10. Antiepileptics, Drugs of migraine
11. Drugs of neurodegenerative disorders. Opioids.
12. Midterm exam 2
13. Anesthetics
14. Drug abuse. Drug interactions and adverse drug reactions

Other subjects (both compulsory and optional) relating to the transversal issues of the subject. Possible overlaps between subjects:

The course builds on the knowledge acquired in the Basic Pathophysiology course, and indirectly in the Physiology and Biochemistry courses.

Schedule of consultations:

Consultations are available during the practical sessions or at individually agreed-upon times.

Course requirements

Prerequisites:

Pharmacology and Toxicology I.,
Basic Medical Pathophysiology II.

Conditions of attending the classes, amount of acceptable absents, way of presentation of leave, opportunity for makeup:

The attendance to lectures is highly recommended.

The attendance to practices is mandatory. Presence on minimum 75% of practices is required to the acceptance of the semester.

<p>The grading method; the conditions for getting the signature; the number, topic(s) and date(s) of the mid-term assessments, (reports, term tests), and the process in which they contribute to the final grade; and the possibility of their retake or their upgrading retake (as provided in §§ 25-28 of the STUDY AND EXAMINATION REGULATIONS):</p> <p>Two written test exams (Midterm exam I and Midterm exam II) will be held during the 7th and 12th weeks of the course, covering the material from weeks 1-6 and weeks 7-11, respectively. There will be two additional opportunities to retake the exams: during the week following the test and in the final week of the course.</p>
<p>Requirements of signature (as provided for in STUDY AND EXAMINATION REGULATIONS § 29):</p> <p>Meeting the attendance requirements. Completion of both midterm tests with at least pass (50%) results.</p>
<p>Number and type of projects students have to perform independently during the semester and their deadlines:</p> <p>Completion of online tasks based on the current week's material.</p>
<p>Type of the semester-end examination: signature*/<u>practical grade</u>*/ comprehensive examination*/<u>end-term examination</u>*</p> <p>Examination requirements: as published by the education-research department on the MOODLE interface by the start of the academic term.</p>
<p>Form of the semester-end examination: <u>written</u>*/oral*/combined examination/<u>practical examination/the assessment of completing project work (according to STUDY AND EXAMINATION REGULATIONS 30.§)</u>* (<i>Please underline</i>)</p>
<p>The possibility and conditions for offering grades:</p>
<p>A list of the basic notes, textbooks, resources and literature that can be used to acquire the knowledge necessary to master the curriculum and to complete the assessments, with exact description about which of them is required to acquire which part of the syllabus (e.g. description based on topics)), as well as the main technical and other aids and study aids that can be used:</p> <p>Ritter et al.: Rang & Dale's Pharmacology 10th ed. Elsevier 2023</p> <p>The uploaded materials from lectures and practical sessions, the drug list, and other educational resources shared on the Moodle system.</p> <p>A minimum requirement is the knowledge of the names of the drugs listed on the drug list, their mechanisms of action, clinical applications, major side effects and interactions, as well as their special pharmacokinetic properties.</p>
<p>In the case of a subject lasting more than one semester, the position of the teaching/research department on the possibility of parallel enrolment and the conditions for admission****:</p> <p>yes*/no*/<u>on an individual assesment basis</u>* (<i>Please underline</i>)</p>
<p>The course description was prepared by:</p> <p>Rudolf Laufer</p>

**** A tantárgy tematikáját oly módon kell meghatározni, hogy az lehetővé tegye más intézményben a kreditismerési döntéshozatalt, tartalmazza a megszerzendő ismeretek, elsajátítandó alkalmazási (rész)kézségek, (rész)kompetenciák és attitűdök leírását, reflektálva a szak képzési és kimeneti követelményeire.**