

REQUIREMENTS

Semmelweis University, Faculty of General Medicine – single, long-cycle medical training programme

Name of the host institution (and any contributing institutions):

Department of Pharmacology and Pharmacotherapy

Name of the subject:

in English: Introduction to pharmacological research

in German: Einführung in die pharmakologische Forschung (in English)

Credit value: 2

Semester: from the 3rd Semester

(as defined in the curriculum)

Total number of classes per week: 2	lectures: 2	practical lessons:	seminars:
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Type of subject: compulsory optional elective

(PLEASE UNDERLINE AS APPLICABLE)

Academic year: 2023/24

Language of instruction, for optional or elective subjects: English

Course code: AOSFRM1037_1A

(In the case of a new subject, this cell is filled in by the Dean's Office, following approval)

Course coordinator: Dr. Zoltán Zádori

Place of work, phone number: Semmelweis University, School of Medicine, Dept. Pharmacology and Pharmacotherapy; 459-1500/56392; 20/666-3319

Position: associate professor

Date and number of habilitation: 2017; 05/2017

Objectives of the course and its place in the medical curriculum:

The aims of this elective course are to increase the students' interest in following recent scientific literature, to introduce them to ways of obtaining information from the literature, to help them to interpret information critically, and to develop their skills to identify and communicate the essential messages of scientific papers.

During the course, students will be introduced to current scientific publications in the field of pharmacological research, develop their literature skills, and become familiar with the in vitro, ex vivo and in vivo methods most commonly used in pharmacological research.

The course will be available for both Hungarian, English and German students, and can be taken every semester from the 3rd semester onwards, but a student can only take it in one semester during his/her studies. The language of the course is English.

We believe that our effort fits in well with the new, modern training approach of Faculties of General Medicine, Dentistry and Pharmacy, which places great emphasis on students acquiring skills in following and correctly interpreting the literature and developing appropriate presentation and debating skills during their undergraduate training.

Place of instruction (address of lecture hall or seminar room etc.):

floor IV., room Knoll, NET, Budapest, Nagyvárad sq. 4., 1089

Competencies acquired through the completion of the course:

Obtaining the latest and most important knowledge of pharmacology and medical biology; ability of correct interpretation and presentation of the core knowledge; insight into the methodology and latest trends of pharmacological research.

Prerequisites for course registration and completion:

Medical Biophysics II, Immunology

Conditions for concurrent course registration and permission thereof in the case of a multi-semester subject:

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Student headcount conditions for starting the course (minimum, maximum) and method of student selection:

Minimal number of students: 10

Maximal number of students: 45

Way of selection: the order of application in Neptun

Detailed course description:

(Theoretical and practical instruction must be broken down into lessons (weeks), numbered separately. Please provide the names of lecturers in both types of lessons, indicating guest lecturers. This information is not to be attached separately. CVs of guest lecturers, however, must be attached.)

Week	Class	Title of weekly topics
1.	1-2.	General introduction to pharmacological science. How can we find the most relevant scientific papers in electronic databases? – Dr. Zoltán Zádori
2.	3-4.	Basics of short scientific presentations. – Dr. Zoltán Giricz
3.	5-6.	Health and safety at work – Dr. Zoltán Giricz
4.	7-8.	Experimental models of gastrointestinal diseases – Dr. Zoltán Zádori
5.	9-10.	Recent advances in pain research – Dr. Zoltán Zádori
6.	11-12.	Animal models of neuropathic pain – Dr. Zoltán Zádori
7.	13-14.	Research of extracellular vesicles – Dr. Zoltán Giricz
8.	15-16.	Cell culture models in the field of cardiology and oncology – Dr. Zoltán Giricz
9.	17-18.	Impact factor, journal rankings, predatory journals – Dr. Zoltán Zádori
10.	19-20.	Opioid analgesics. Which way further? – Dr. Zoltán Zádori
11.	21-22.	The role of microbiota in health and disease – Dr. Zoltán Zádori
12.	23-24.	In vitro techniques in cardiovascular research – Dr. Zoltán Giricz
13.	25-26.	Unbiased network theoretic target prediction in various diseases – Dr. Zoltán Giricz
14.	27-28.	Recent advances in behavioral pharmacological research – Dr. Zoltán Giricz

Related subjects due to interdisciplinary fields (both compulsory and elective) and potential overlaps between subjects:

Medical Biochemistry, Medical Biophysics, Medical Physiology, Immunology, Pharmacology. No overlap.

Attendance requirements; conditions under which students can make up for absences and the method of absence justification:

Attendance at the lectures is compulsory. The number of absences from lectures cannot exceed 25% of the lectures of the semester, and the semester will not be certified for absences exceeding this number. There is no replacement for missed classes, however, the original publications on which the weekly lectures are based will be made available electronically on the Moodle system of the university.

Form of assessment in the study period:

(including the number, topics and scheduling of oral and written tests, their share in the overall evaluation, make-up tests and improvement tests)

Each week, students have to take a short test on the topic of the weekly lecture in the university's

<p>Moodle system, the tests consist of single-choice questions. There are no possibilities to improve the test results. Opportunity to make up the tests will be given in week 14. Students who achieve an average score of 90% or above on the tests taken during the semester will be offered an excellent (5) practical grade, while a good (4) grade will be offered for an average score of 80-89%.</p>
<p>Number and type of assignments for individual work and the deadline for submission: Each student is expected to give one presentation of a scientific paper per semester, to participate actively in the discussion and debate that follows, and to answer the questions asked. Students should formulate opinions and ask questions on peer-reviewed papers.</p>
<p>Requirements to obtain the teacher's signature: The number of absences from lectures cannot exceed 25% of the lectures of the semester.</p>
<p>Type of assessment (<i>comprehensive examination, end-term examination, term-grade, term-grade on a three-grade rating scale, no examination</i>): Term-grade.</p>
<p>Examination requirements: <i>(list of examination topics, subject areas of tests / examinations, lists of mandatory parameters, figures, concepts and calculations, practical skills)</i> Students for whom a practical grade cannot be offered on the basis of mid-year examinations will take a test exam in week 14. The single-choice tests will be based on the materials of scientific papers presented during the semester. Test questions are updated accordingly on an annual basis.</p>
<p>Method and type of grading: <i>(Share of theoretical and practical examinations in the overall evaluation. Inclusion of the results of the end-of-term assessment. Possibilities of and conditions for offered grades.)</i> Students who achieve an average score of 90% or above on the tests taken during the semester will be offered an excellent (5) practical grade, while a good (4) grade will be offered for an average score of 80-89%. Students for whom a practical grade cannot be offered on the basis of mid-year examinations will take a test exam in week 14, which will be graded on a five-point scale (1= unsatisfactory, 2= satisfactory, 3=average, 4=good, 5=excellent), with the following scoring: >90% - excellent; 80-89% - good, 70-79% - average, 60-69% - satisfactory, below 60% - unsatisfactory.</p>
<p>List of course books, textbooks, study aids and literature facilitating the acquisition of knowledge to complete the course and included in the assessment, precisely indicating which requirement each item is related to (e.g., topic by topic) as well as a list of important technical and other applicable study aids: Original publications on which the lectures are based will be made available for the students in the Moodle system of the university.</p>
<p>Signature of habilitated instructor (course coordinator) announcing the course: Dr. Zoltán Zádori</p>
<p>Signature of the director of the host institution: Prof. Dr. Péter Ferdinandy</p>
<p>Date of submission: 26.04.2023.</p>