

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF.KGF/06-Mgr-A/22	Course title: Pharmaceutical Technology (2)
Educational activities: Type of activities: lecture / laboratory practicals Number of hours: per week: 4 / 5 per level/semester: 56 / 70 Form of the course: on-site learning	
Number of credits: 9	
Recommended semester: 7.	
Educational level: I.II.	
Prerequisites:	
Course requirements: Attendance of the lectures and practical exercises is obligatory. On each practical exercise a test is written, at least 60 % must be achieved from each test. Course is completed when at least 60% is achieved in final oral exam. Assessment: A: 93.00–100.00%, B: 85.00–92.99%, C: 77.00–84.99%, D: 69.00–76.99%, E: 60.00–68.99%, FX: less than 60.00%	
Learning outcomes: Pharmaceutical technology deals with the composition, formulation, manufacturing, evaluation and quality of medicines and drug products. It studies the conditions under which drugs and pharmaceutical excipients are transformed into a medicines by technological processes, the relationships of the medicines to the effect and action of the drug. By passing the course, the student will have a complex theoretical knowledge of the drug products and medicines as dispersion and application systems and practical experience in compounding of dosage forms. The students will be able to prepare basic dosage forms (e.g., tablets, coated tablets, extracts, emulsions etc.).	
Class syllabus: <ul style="list-style-type: none"> • Rectal and vaginal products. • Solid dosage forms for oral and peroral use (granules, tablets, coated tablets, capsules). • Dosage microforms. • Nasal and ear dosage forms. • Modified release peroral dosage forms. • Transdermal therapeutic systems. • Biologics and biosimilars. • Technological aspects of vaccine production. • Drug targeting. • Drug release, release and absorption kinetics. • Biopharmacy, mechanism of drug transfer through biological membranes, bioavailability. • Stability and stabilization of drug products. • Quality assurance in pharmaceutical production and quality control. • Pharmaceutical packs and packaging. 	

Recommended literature:

Aulton, M. E.: Aulton's Pharmaceutics: the design and manufacture of medicines. Edinburgh: Churchill Livingstone,

European Pharmacopoeia 10 th Ed. Strasbourg: EDQM, 2020.

Lectures in Pharmaceutical technology

Tichý E., Starýchová L., Čuchorová M.: Solid dosage forms – Laboratory practices, Bratislava UK, 2015

Tichý E., Špaglová M., Bartoníková K.: Liquid dosage forms – Laboratory practices, Bratislava UK, 2016

Tichý E., Šimunková V., Halenárová A.: Emulsions, suspensions, ointments, creams, pastes, suppositories, and pessaries – Laboratory practices, Bratislava UK, 2017

European Pharmacopoeia 10th Ed. Strasbourg: EDQM, 2022.

<https://www.fpharm.uniba.sk/pracoviska/ustredna-kniznica/externe-informacne-zdroje/>

Languages necessary to complete the course:

English

Notes:**Past grade distribution**

Total number of evaluated students: 30

A	ABS	B	C	D	E	FX
20,0	0,0	20,0	16,67	10,0	23,33	10,0

Lecturers: PharmDr. Alžbeta Lengyelová, PharmDr. Veronika Šimunková, PhD., PharmDr. ThLic. Mária Raučinová, PhD., PharmDr. Mária Čuchorová, PhD., PharmDr. Miroslava Špaglová, PhD., PharmDr. Desana Matušová, PhD., PharmDr. Veronika Mikušová, PhD., Mgr. Martina Papadacos, PhD., Ing. Michael Kenneth Lawson, PhD., PharmDr. Miroslava Potůčková, PhD., doc. PharmDr. Juraj Piešťanský, PhD., PharmDr. Dominika Žigayová

Last change: 17.02.2023

Approved by: