

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF.KFB/08-Mgr-A/22	Course title: Technology of Natural Drugs
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 7.	
Educational level: I.II.	
Prerequisites:	
Course requirements: - a 100 % attendance at the course lectures is required; - students must prepare 2 seminar works. The first one should be submitted by 6th semestral week at the latest, the second one should be submitted by 12th semestral week at the latest; - successful evaluation of 2 seminar works is required for successful completion of the course seminars. Only the corrected and accepted version of seminar works will enable students to take part at the final examination of the subject. - The final exams will have the form of a written test. Grading rules: 100-92/A, 91-84/B, 83-76/C, 75-68/D, 67-60/E, 59-0/FX. Scale of assessment (preliminary/final): 1/1	
Learning outcomes: Upon successful completion of the educational process, the student should gain a comprehensive overview of the processes that precede the emergence of a particular plant-based product and should be able to evaluate drugs and medicinal plants as basic raw materials for the preparation of natural medicines. The acquired knowledge should help the student in the application, especially in the field of research and production of pharmaceutical preparations on a plant basis, but also in other industries, e. g. cosmetics, food industry.	
Class syllabus: The course Technology of Natural Drugs deals with plant raw materials used in the pharmaceutical industry. Their use is very common not only in the form of phytopharmaceuticals or isolated active substances in the form of drugs, but is also possible in the form of nutritional supplements. It focuses on the requirements concerning the quality of plant material and factors influencing the quality of the drug in the whole process of phytopharmaceutical production - from good cultivation practice to good manufacturing practice. Gradually acquaints students with the basic procedures of plant material processing but also with newer methods of active substances obtaining such as supercritical or subcritical fluid extraction, microwave-assisted extraction or ultrasound-assisted extraction. It explains the importance of fingerprint analysis of extracts and standardisation of the content of their active substances, which are important indicators of the quality and effectiveness of phytopharmaceuticals. Students will get acquainted with an important area of natural drugs	

technology – biotechnology, and the possibilities of their application in the process of obtaining active substances from plants.						
Recommended literature: Nagy-Grančai-Mučaji: Farmakognózia - Biogenéza prírodných látok, 1. vyd. Mučaji-Bittner Fialová-Czigle-Grančai-Nagy: Farmakognózia - Biologicky aktívne rastlinné metabolity a ich zdroje. 3. vydanie. 2025. European Pharmacopoeia. (current edition + supplements) Slovak Pharmaceutical Codex. 1. edition.						
Languages necessary to complete the course: English						
Notes: The course is opened only in the winter semester if at least 10 students are enrolled for the course. The maximum number of students who can enrol in the course is 16.						
Past grade distribution Total number of evaluated students: 0						
A	ABS	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: PharmDr. Vladimír Forman, PhD.						
Last change: 25.03.2026						
Approved by: prof. PharmDr. Pavel Mučaji, PhD.						