

## SYLLABUS

**1. Course title:**

PHARMACOGNOSY I

**2. Code:****3. Cycle of study:**

1

**4. ECTS credits:**

7

**5. Type of course:** Mandatory  Elective**6. Prerequisites:**

Student does not have to pass any subject before this.

**7. Class restrictions:**

No restrictions

**8. Duration / semester:**

1

7

**9. Weekly contact hours:**

9.1. Lectures:

3

9.2. Seminars:

0

9.3. Laboratory/Practice classes:

3

**10. Faculty:**

Faculty of Pharmacy

**11. Department/study program:**

Pharmacy (integrated I and II cycle)

**12. Lecturer:**

dr. sc. Ermina Cilović Kozarević, assoc. prof.

**13. Lecturer's e-mail:**

ermina.cilovic@untz.ba

**14. Web site:**

www.frmf.untz.ba

**15. Course aims:**

Acquisition of basic knowledge about pharmacologically active metabolites of plants and animals (chemical and physical characteristics, distribution, biological activity), as well as natural medicinal raw materials - drugs (morphological and anatomical characteristics, chemical ingredients, production methods, identification, action and application), with special reference to drugs that have an effect on the nervous and gastrointestinal systems.

**16. Learning outcomes:**

The student should be able to independently identify drugs, know the possibilities of their application, participate in the design, organization and management of the drug production process and ensure their quality.

**17. Course content:**

Definition of natural medicinal raw materials (drugs) and drug preparations, history of use, production and quality assurance. Primary and secondary plant metabolism. Classification of natural pharmacologically active ingredients based on chemical structure and biosynthetic origin. Classification of drugs based on the structure and action of active ingredients. Chemical structure, physical characteristics, biological role, principles of isolation and purification of certain classes of active metabolites. Biological sources of drugs, macroscopic characteristics, ingredients, identification, pharmacological action and drug use.

Alkaloid drugs (analgesics, antineuralgics, parasymphomimetics, parasympholytics, spasmolytics, antiasthmatics, antihypertensives, analeptics, uterostipics, emetics, anthelmintics)

Essential oils and aromatic drugs (sedatives, stomachics, amara aromatica, carminatives, expectorants, anti-inflammatory drugs)

Tannins.

**18. Learning methods:**

Teaching methods: lectures (theoretical teaching) and laboratory exercises (practical teaching). The lectures include the entire material provided by the indicative content of the course and are conducted ex cathedra. Laboratory exercises take place according to the curriculum and are performed independently by students in the pharmacognosy laboratory. Attendance at laboratory exercises and lectures is mandatory.

**19. Assessment methods:**

The knowledge check during the semester takes place through the exercise activity, two colloquiums and a practical exam, which are done practically and include material from the exercises. Colloquium I is held in the middle, and colloquy II at the end of the semester, lasting 30 minutes each, within the hourly exercises, and they include material related to the theoretical basis and the practical basis of the exercises. The practical exam is held at the last time of the laboratory exercises for 1.5 hours. The practical exam consists of 10 drugs in a tea mixture (6 drugs must be correctly identified to pass), a mixture of 3 pulvis (2 pulvis must be correctly identified to pass) and a microscopic drug preparation that must be correctly identified to pass the practical exam. The final exam is done in writing and/or orally in the scheduled exam times, it includes the material provided by the indicative content of the course. Unpassed parts of the exam are taken in the advertised exam times.

Exercise activity carries a maximum of 5 points (minimum 3 points); Colloquium I carries a maximum of 10 points (min. 6 points); Colloquium II carries a maximum of 10 points (minimum 6); The practical exam carries a maximum of 25 points (minimum 13); The final exam carries a maximum of 50 points (minimum 27).

**20. Assessment components:**

The final success of the student is evaluated using the grading scale as follows:

- 10 (A) - outstanding performance without errors or with minor errors, 95-100 points
  - 9 (B) - above the average, with some errors, 85-94 points
  - 8 (C) - average, with noticeable errors, 75-84 points
  - 7 (D) - generally good, but with significant shortcomings, 65-74 points
  - 6 (E) - meets the minimum criteria, 55-64 points
  - 5 (F, FX) - does not meet the minimum criteria, below 55 points
- The grade 6 (E) is the lowest passing grade.

**21. Required reading list:**

1. Saric-Kundalic B, Maksimovic Z (2016). Introduction in Pharmacognosy I, Banovići
2. Saric-Kundalic B, Cilovic Kozarevic E (2021). Pharmacognosy 1, Tuzla
3. Kovacevic N (2004). Basics of Pharmacognosy, Belgrade.
4. Evans W.C. (2009). Trease and Evans Pharmacognosy. Sixteenth edition, Elsevier

**22. Web sources:****23. Applicable starting from the academic year:**

2023/24.

**24. Adopted in the Faculty/Academy session:**

17.11.2025.