

## SYLLABUS

**1. Course title:**

Pharmacognosy II

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

1

**4. ECTS credits:**

7

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

none

**7. Class restrictions:**

none

**8. Duration / semester:**

1

8

**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 1st and 2nd cycle)

**12. Lecturer:**

Dr.Broza Saric-Kundalic, associate professor

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

broza.saric-kundalic@untz.ba

**14. Web site:**

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**15. Course aims:**

Acquiring basic knowledge of the pharmacologically active metabolites of plants and animals (chemical and physical characteristics, distribution, biological activity), as well as the natural healing raw materials - drugs (morphological and anatomical characteristics, chemical compounds, methods of manufacture, identification, effects and application), with particular focus on drugs that have effects on the gastrointestinal, cardiovascular, urogenital and respiratory system.

Students learn about the mode in pharmacognostic-chemical laboratory; qualitative and quantitative examination of drugs according to regulation of Pharmacopoeia.

**16. Learning outcomes:**

The student needs to overcome qualitative and quantitative examination of active chemical substances in some drugs, to know the possibilities of their application, participate in planning, organization and management of the process of production of drugs and ensuring their quality.

**17. Course content:**

The definition of natural therapeutic substances (drugs) and drug preparations, history of use, production and quality assurance. Primary and secondary metabolism of plants. Classification of natural pharmacologically active ingredients from the chemical structure and biosynthetic origin. Classification of drugs based on the structure and activity of active ingredients. The chemical structure, physical characteristics, biological role, the principles of isolation and purification of the individual classes of active metabolites. Biological sources of drugs, macroscopic characteristics, ingredients, identification, pharmacological action and application of the drug.

Laxantia, Carminativa, Antihelminitica, Cholagoga, Drugs with effect on the respiratory system, Cardiaca, Vasokonstringentia, Vasodilatantia, Diuretica, Drugs with effect on prostate, Diaphoretica, Dermatotherapeutica, Cytostatica, Drugs with use in gynecology.

**18. Learning methods:**

Teaching methods: lectures (theoretical classes) and laboratory exercises (practical classes). Lectures cover the entire material provided by the curriculum. Working material from the lectures is available to students. Laboratory exercises take place according to the curriculum and are performed independently in pharmacognostic laboratory or tutorial (optional).

**19. Assessment methods:**

Examination methods: colloquia, practical exam, final exam. Within the hourly rate of laboratory exercises will be held two colloquia, both in the duration of 30 minutes, with topics concerning the theoretical basis and practical identification of drugs. Working materials for exercises and colloquia students get in scope of laboratory exercises. Practical examination (identification of the components of tea blends; identification of components of mix powders, theoretical questions about the microscopic properties of drugs). Final exam (written and / or oral).

**20. Assessment components:**

Obligations before final exam (1): visits to the lectures, activity during laboratory exercises, colloquium results, the results of practical test. The presence of students in class is required. Final exam obligations (2): The theoretical knowledge will be carried out by means of the final examination (written and / or oral).

**21. Required reading list:**

1. A. Becker. Analytik biogener Arzneistoffe, Band 4. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart, 2000.
2. Kovač-Bešović E. Metode u farmakognoziji. Sarajevo Publishing, Sarajevo, 2001.
3. R. Länger, W.Kubelka. Phytokodex. Krause & Pachernegg GmbH, Verlag für Medizin und Wirtschaft, 2002.
4. M. Wichtl. Teedrogen und Phytopharmaka, 4. Auflage. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart, 2002.
5. W. Kubelka. Pharmakognosie I. Institut für Pharmakognosie, Universität Wien, 2003.
6. B. Šarić-Kundalić, Z. Maksimović. Uvod u Farmakognoziju I. Mikrotrik doo Banovići, Banovići, 2016.

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

2012/2013

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