

## SYLLABUS

**1. Course title:**

Pharmaceutical chemistry and pharmacognosy

**2. Code:****3. Cycle of study:****4. ECTS credits:****5. Type of course:** Mandatory  Elective**6. Prerequisites:****7. Class restrictions:****8. Duration / semester:****9. Weekly contact hours:**

9.1. Lectures:

9.2. Seminars:

9.3. Laboratory/Practice classes:

**10. Faculty:**

Faculty of Pharmacy

**11. Department/study program:**

Pharmaceutical sciences

**12. Lecturer:**

Dr.sc.Lejla Begić, full professor

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

lejla.begic@untz.ba

**14. Web site:**

www.farmacy.untz.ba

**15. Course aims:**

Presentation of the actual knowledge about different fields of pharmacognosy and pharmaceutical chemistry. Introduction to the scientific methods and procedures which are used in discovering of the new knowledge in pharmacognosy and pharmaceutical chemistry.

**16. Learning outcomes:**

Adoption of the new knowledge about different fields of pharmacognosy and pharmaceutical chemistry. Adoption to the scientific methods and procedures which are used in discovering of the new knowledge in pharmacognosy and pharmaceutical chemistry.

**17. Course content:**

Medicinal and poisonous herbs in BiH - selected topics. Narcotic drugs. Selected topics from traditional medicine of BiH-Prokoško lake. Phytotherapy-new approved remedies and borderline to food supplements. The use of herbs in different therapy concepts. Herbs with heterosides: saponins, flavonoids and coumarins. Essential oils: production, application and importance. Antioxidative and antimicrobial activity of essential oils. Genus *Thymus* as a source of pharmaceutical important products. Role and activity of the Committee on Herbal Medicinal Products (HMPC) in the European Medicines Agency (EMA)- establishing EU monographs for herbal medicines. Herbal polyphenol compounds, activity and mechanism of pharmacological action. Polyphenol compounds from species of *Potentilla* genus. Molecular mechanism of drug action. Introduction to QSAR studies. Synthesis, structure and assessment of biological activity of newly synthesized compounds. Peptide synthesis-Merryfield method.

**18. Learning methods:**

Lectures using multimedia  
Students prepared essays on given topics

**19. Assessment methods:**

After the course is completed students are obliged to take an exam which covers the material presented during the course. The test consists of the section with multiple choice questions, and the section with the essay questions. Correct answer is worth 5 points, for multiple choice question, and 10 points for essay question.

**20. Assessment components:**

The exam is worth 100 points total, with 90 points worth for questions and 10 points worth for student's activity during lectures.

**21. Required reading list:**

Heinrich M, Barnes J, Gibbon S, Williamson E. (2004) Fundamentals of Pharmacognosy and Phytotherapy, Churchill Livingstone.  
Bodanszky M. (1993) Principles of Peptide Synthesis, 2nd Ed., Springer.

**22. Web sources:**

(max. 687 characters)

**23. Applicable starting from the academic year:**

2012/13

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

(max. 10 char.)