



УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ
UNIVERSITY OF BANJA LUKA
ПРИРОДНО-МАТЕМАТИЧКИ ФАКУЛТЕТ
FACULTY OF NATURAL SCIENCES AND MATHEMATICS



CHEMISTRY DEPARTMENT

FIRST CYCLE OF STUDY

Chemistry/Chemistry Education

Course name	Applied Organic Chemistry			
Course code	Course status	Semester	Hours of instruction	ECTS
1C16HOS1106	elective	VI	2+2	4
Teacher(s)	Prof. Vesna Antić PhD			

Prerequisite course(s)	Entry requirements
Organic Chemistry 1 and Organic Chemistry 2	Attended

Course goals
Introduction to the production of organic compounds in industry. Acquiring the necessary knowledge about the structure, application, synthesis and isolation of different classes of organic compounds that have practical application and are produced industrially.

Learning outcomes
After passing the exam Applied Organic Chemistry, the student can isolate, synthesize and apply various organic compounds in the chemical, petrochemical, cosmetic, food and pharmaceutical industries.

Course content
Surfactants (types, synthesis). Detergent components. Detergent production processes. Lipids, carbohydrates and terpenoids as raw materials in the chemical, cosmetic and pharmaceutical industries. Petroleum products. Primary oil refining processes (distillation, absorption, adsorption, extraction). Secondary oil refining processes (cracking, hydrocracking, reforming, isomerization, polymerization, alkylation, refining). Paints and varnishes. Pigments. Raw materials for ethanol production by fermentation process and ethanol production. Important classes of drugs: structure and synthesis. Food additives: preservatives, dyes, emulsifiers.

Teaching methods
Lectures, seminar work, field (introduction to industrial plants) and laboratory exercises.

Books and other learning materials
1. E. Smulders: Laundry detergents, Wiley-VCH Verlag GmbH & Co. 2002 2. Paint and Surface Coatings, Woodhead Publishing Ltd, 1999. 3. Lecture material

Course activities and grading method
Seminar work and oral exam.

Activity	10	Seminar work	30
		Final exam	60

Additional course notes
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Name of the teacher who prepared this form	Vesna Antić
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