



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



CHEMISTRY DEPARTMENT

FIRST CYCLE OF STUDY

Chemistry

Course name	Processes in Chemical Industry			
Course code	Course status	Semester	Hours of instruction	ECTS
1C16HOS1129	elective	VIII	2+1	4
Teacher(s)	Prof. Saša Papuga PhD			

Prerequisite course(s)	Entry requirements
Industrial Chemistry 1	Attended

Course goals
Acquisition of theoretical and practical knowledge of processes in chemical engineering on the basic level.

Learning outcomes
Through a systematic approach, the student gets acquainted with the basic process parameters, and ways of measuring and interpreting them. The student acquires the possibility of compilation of basic material and energy balances of characteristic processes in the chemical industry. Through acquaintance with the basic phenomena of matter and energy transfer and appropriate calculations, the student will be able to evaluate the processes covered by this program together with process engineers.

Course content
Introduction to chemical engineering, basic laws, process parameters, measurement of process parameters, interpretation, analysis and processing of process data. Material process balances without chemical reaction, material process balances with chemical reaction, energy balances. Phenomena of matter and energy transfer. Heat transfer processes heat exchangers. Humid air and drying processes. Combustion. Mixing.

Teaching methods
Within the lectures and exercises, students are theoretically and practically explained the material provided by the curriculum. During the practical classes, students learn about the methods of interpretation and processing of process parameters, including practical examples of balancing, as well as examples of calculations of the process of heat exchange, drying, combustion and mixing. Verbal method, demonstration method, group and individual consultations.

Books and other learning materials
M. Jotanović i G. Tadić: Osnove hemijskog inženjerstva , Tehnološki fakultet Univerziteta u Istočnom Sarajevu, Zvornik, 2012. M. Maksimović: Tehnološke operacije , Tehnološki fakultet Univerziteta u Banjoj Luci, Banja Luka, 2001. M. Maksimović, Lj. Vukić: Proračun i dimezionisanje operacija aparata u procesnoj industriji i ekološkom inženjerstvu , Tehnološki fakultet Univerziteta u Banjoj Luci, Banja Luka, 2009.

Course activities and grading method
Two tests - a total of 40 points (20 points per test). Final exam 60 points. The student can get a passing grade by taking the final exam with the following conditions: regular attendance, passing both tests (minimum 16 points per test), and cumulatively collected at least 51 points. In case the student has not passed one or both tests, he / she take the written exam in the regular exam deadlines.

Test	40	Final exam	60
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Additional course notes
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Name of the teacher who prepared this form	Saša Papuga
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