SYLLABUS

1. Course title:

Inorganic technology

2. Code:

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

No prerequisites

7. Class restrictions:

No class restrictions

8. Duration / semester:

1 6

9. Weekly contact hours:

9.1. Lectures:	3
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	2

10. Faculty:

Faculty of technology

11. Department/study program:

Chemical Engineering and Technologies

12. Lecturer:

Mustafa Burgić, full professor

13. Lecturer's e-mail:

mustafaburgic@yahoo.com

14. Web site:

www.tf.untz.ba

15. Course aims:

The aim of the course is to give students necessary knowledge related to selected chapters of inorganic chemical industry, principles and ways of implementing cleaner production measures in the process industry and the application of so-called cleaner technologies to reduce the negative impact of processes and process industry products on the environment.

16. Learning outcomes:

By successfully mastering this course, students will identify the principles and techniques of industrial processes in the inorganic chemical industry, and control the medium and large production systems, and analyze and differentiate the possibilities of applying newer cleaner technologies to the process industry, so that they will either be able to work independently or in a team to solve problems related to this area.

17. Course content:

Through the course of Inorganic technology, students are introduced to the following curricula: Basic processes in methods of separating inorganic salts. The salt systems and their equilibrium states. Division of the salt solution systems. Isolation and separation of inorganic salts by crystallization and / or dissolution. Isolation and separation of salt by crystallization from unsaturated solutions of the three-component systems. Crystallization, isolation and separation of inorganic salts by dissolving their solid salt mixtures.
For the implementation of these processes and the rational production of inorganic salts it is necessary to know the basic chemical reactions and the mechanisms and kinetics of the basic chemical processes that lead these reactions to equilibrium states. The achieved equilibrium states also define the possible utilization. Since most of these reactions take place in heterogeneous reaction systems, it is a prerequisite for their practical implementation to apply knowledge from heterogeneous equilibrium.

18. Learning methods:

Auditorial lectures, using multimedia resouces (power point presentations), favoring the active participation and discussion of students.
Practical work on the preparation and public pesentation of individual and group seminar papers.

19. Assessment methods:

Knowledge and skills are continually evaluated throughout the semester, through: partial exams - tests - T1 and T2, and final exam. Students are obliged to approach all forms of knowledge checking during the semester.
Partial exam I includes knowledge checking after the first seven teaching units, adopted through lectures.
Partial exam II includes knowledge checking, adopted through lectures (teaching units from 8 to 15).
Partial exams I and II are in written form and each consists of 10 questions. At each partial exam, the student can win a maximum of 20 points.
As part of the prerequisites, the student can prepare a seminar work on the topics of the course content, which he submits in written form for review and assessment and can achieve a maximum of 5 points.
The presence at lectures is evaluated with a maximum of 5 points (lectures are mandatory). The student can earn up to 50 points on pre-exam activities.
The final exam covers the entire course. At the final exam, the student can win a maximum of 50 points.

20. Assessment components:

The rating on the exam is based on the total number of points the student has achieved by fulfilling the prerequisites and completing the final exam, and it contains a maximum of 100 points and is determined according to the following scale: Attendance at the lectures 5 points; Seminar work 5 points; Partial test I and II -40 points. Prerequisites total 50 points and final exam total 50 points.

21. Required reading list:

1.Burgić Mustafa: Tehnologija neorganskih hemijskih proizvoda, Tehnološki fakultet Tuzla,2000.
2. Mustafa Burgič : Osnove tehnoloških procesa malotonažne hemije, Tehnološki fakultet Tuzla 2012
D. Delić, Neorganska hemijska tehno

22. Web sources:

http://www.unep.fr/scp/cp/publications/ (10.04.2015)

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session: