SYLLABUS

1. Course title:

TECHNOLOGY OF INORGANIC NON-METAL MATERIALS

2. Code:

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

No prerequisites

7. Class restrictions:

8. Duration / semester:

1 6

9. Weekly contact hours:

9.1. Lectures:	3
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	1

10. Faculty:

Faculty of Technology

11. Department/study program:

Chemical Engineering and Technologies/Chemistry and Engineering of Materials

12. Lecturer:

Sabina Begić, associate professor

13. Lecturer's e-mail:

sabina.begic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

The aim of the course is to give students necessary knowledge in the field of production and processing of inorganic non-metal materials. The chemical and physical properties and their characteristics in relation to other materials and their practical use. Constructive characteristics and their presence in the process industry.

16. Learning outcomes:

By successfully mastering this course, students will identify the principles and techniques of applying industrial processes. Acquiring knowledge about the types, importance and properties of inorganic non-metal materials (NNM). Getting acquainted with the basic raw materials for the production of NNM. Adopting knowledge about the production processes of the most important NNM (mineral binders, glass, ceramics). Recognition of the importance of the recycling process and the prerequisites for sustainable production. Cement composites, ceramic materials, glass ceramics, biomaterials and contemporary trends in the development of NNM materials.

17. Course content:

Throughout the course, students learn about inorganic non-metal raw materials, processes of their processing and enrichment, and processes of production of inorganic non-metal materials. In this way gain insight into their great economic importance as one of the most attractive branches of economy of the developed countries of the world. Students acquire specific competencies through seminar work in the processing of certain types of inorganic non - metal materials, and thus accept the recognition that progress in the field of development research of inorganic materials of targeted properties is possible only through systemic multidisciplinary research.

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:

A.Durekovic, Cement, cementni kompozit i dodaci za beton, IGH i Školska knjiga,
Zagreb, 1996.
. F.M.Lea, The Chemistry of Cement and Concrete, Arnold (Publishers), LTD,
Glasgow, 1970.. T.Janackovic, R.Ninkovic, B.Božovic, T

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: