SYLLABUS

1. Course title:

Packing materials

2. Code:

3. Cycle of study:

1

4. ECTS credits:

4

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

No

7. Class restrictions:

No

8. Duration / semester:

1 7

9. Weekly contact hours:

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

10. Faculty:

Faculty of Tehnology

11. Department/study program:

Chemical Engineering and Technologies/Chemistry and Engineering of Materials

12. Lecturer:

dr.sc. Sead Catic, red. prof.

13. Lecturer's e-mail:

sead.catic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

The aim of the course is to familiarize students with packaging materials used in the chemical and food industry and packaging formats. In addition, the knowledge is gained from the interactions taking place in the product-packaging-environment system.

16. Learning outcomes:

Properly interpret and explain the packaging function of this packaging creation element.
Familiarize with the composition, function, characteristics of different packaging materials (metal packaging materials, glass, polymer materials, paper, cardboard, wood, textile, multilayer materials). To introduce the students with new types of materials. To know to apply different packaging for different products. Explain and understand the impact of various factors that reduce the quality of the packed product. Explain the impact and mechanisms of migration and permeation through packaging material.

17. Course content:

Introduction to Packaging History. Definition and Importance of Packaging and Packaging Materials. Packaging design elements. Packaging Functions; Protective, warehousing-transport, sales and use. Distribution of packaging by type of packaging material. Metal packaging, corrosion and protection. Polymeric materials for packaging, properties, division and processing methods. Paper and cardboard packaging, application. Multilayer packaging-laminates and production processes. Glass packaging, features and assortment of glass packaging. Wooden packaging. Packaging forms. Packaging and Environment. Ecologically acceptable packaging. Recycling of packaging. Legislation for Packaging.

18. Learning methods:

- lectures
- consultations as needed

19. Assessment methods:

Students must complete two partial (I and II) tests from the theoretical part during the course.
Students who have passed the 1st and the 2nd test from the theoretical part of the subject with the maximum number of points, Professor fill the grade in the index after completing all the obligations on the subject (the proof isthe signature of the Professor in the index). All students who did not passed one of the tests (I or II /) or who are not satisfied with the grade and who have fulfilled all the obligations on the subject (have the signature of the Professor in the index) are approached by the final exam.
After each test or exam, the results will be published on the info board within 7 days.

20. Assessment components:

The final grade is based on the total number of points obtained through pre-requisites and the final exam, according to the quality of the acquired knowledge and skills.
It has a maximum of 100 points, according to the following scale:

Student Obligations:	Points
Attendance and activity in lectures:	10 points
Test of the theoretical part:	25 (minimum points is 13 per test)
Seminar:	10
Final Exam:	30

21. Required reading list:

- I. Vujković, K. Galić, M. Vereš, Ambalaža za pakiranje namirnica, Tectus, Zagreb 2007.
- K. Galić N. Ciković, K. Berković, Analiza ambalažnog materijala, HINUS Zagreb, 2000.
- N. Stričević, Suvremena ambalaža II i III dio, Školska knjiga Zagreb, 1983.
- M. Curković, I. Vujković, J. Gvozdenović, Praktikum kontrola ambalažnih materijala i ambalaže, Tehnološki fakultet Novi Sad, 1984.

22. Web sources:

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session: