SYLLABUS

1. Course title:

Technologies of processing non-metallic materials

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

3

5. Type of course:

○ Mandatory ◉ Elective

6. Prerequisites:

Materials I and Materials II

7. Class restrictions:

No restrictions

8. Duration / semester:

1 5

9. Weekly contact hours:

9.1. Lectures: 2

9.2. Seminars: 1

9.3. Laboratory/Practice classes: 0

10. Faculty:

Faculty of Mechanical Engineering

11. Department/study program:

Production Engineering, Machine manufacturing engineering

12. Lecturer:

(max. 50 characters)

13. Lecturer's e-mail:

(max. 50 characters)

14. Web site:

www.untz.mf.ba

15. Course aims:

The basic goal of teaching in the subject "Technologies of processing non-metallic materials" is gaining fundamental knowledge in the field of treatment of this group of materials and justification of their production applications, especially in the mechanical, food and the automotive industry.

16. Learning outcomes:

Upon successful completion of this course, students will be able to: identify and define the basic concepts in the field of processing and production of non-metallic materials, submit and choose the most suitable material for an appropriate procedure, through their knowledge correctly projected processing procedure for concrete production problem, selection of the most suitable process regime processing controls the entire unwinding process.

17. Course content:

- Introductory consideration and review of structural non-metallic materials;
- The state of current research in the field of production and application of non-metallic materials;
- Classification of technologies for non-metallic materials processing : extrusion, continuous extrusion, injection molding, transfer molding, rotary (centrifugal) casting, joining technologies (soldering welding and non-metallic materials, plastic forming technology, etc.
- The innovation of existing and possible applications of newly developed processes.
- Waste management and recycling possibilities.

18. Learning methods:

In order of successful learning within the subject the following activities are planned:

- Lectures - theoretical lectures, active two-way communication student - teacher, the obligatory presence of students; segment of active participation in the teaching of students will include and deal with a given topic by the student and public defense of the same.
- Exercises;
- Tests of the theory and problems - solving tests and problems;
- Seminar work - independent work of students in solving the above problem, consultations.

19. Assessment methods:

After half of the semester, students take the first colloquial exam that includes previously treated themes. Colloquial exam consists of a theoretical part and problem solvings. On the first colloquial exam students can achieve a maximum of 15 points.

After completing the semester students take second colloquial exam that includes previously treated themes which consists of a theoretical part and problems where they can achieve a maximum of 15 points. Colloquial exams are prepared by the teacher to the students in a given period of time were able to respond to questions posed from the problems of the attached material. Both tests taken by all students in the course at the same time thereby achieving uniformity of the level of knowledge that is being tested, as well as the conditions under which the student takes the exam.

As part of the pre-exam activities, students are required to make of the individual seminar that will cover specific topics from the contents of the subject. Students essay submitted in writing by the subject teacher to review and assessment, and then orally presented and answer the questions asked on exposed themes. The student can achieve up to 15 points for completed and presented seminar work and a maximum of 5 credits for compulsory attendance.

The final and makeup exam is oral type, and the maximum number of points that can be achieved on the final exam is 50, and the right for the final exam is defended seminar and earn 50% of points on partial knowledge tests.
Assessment of students recognized as a cumulative exam if the result reached after each individual test is 50% or more of total scheduled or required knowledge and skills.
In order for the student to pass the subject must achieve a minimum of 54 cumulative points of which a minimum of 26,5 points at the final oral exam.

20. Assessment components:

Exam grade is based on the total number of credits a student gained fulfilling exam prerequisites and passing exams and contains a maximum of 100 points, according to the following scale:

Students' obligations	Points
Presence in classes	5
Seminar + Activity	15
Colloquial test	30
Total prerequisites	50
Final exam from	26.5 to 50

21. Required reading list:

1. Haendle, F. (2007): Extrusion in Ceramics, Springer Verlag Berlin - Heidelberg;
2. Hernandez-Ortiz, Osswald (2006): Polymer Processing, Modeling and Simulation, Hanser Verlag;
3. Ashby (2011): Materials Selection in Mechanical Design, Elsevier

22. Web sources:

http://bookfi.net/book/1134916 [30.3.2016]
http://bookfi.net/book/1090523 [30.3.2016]
http://bookfi.net/book/1029026 [30.3.2016]

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session:

01.06.2015