SYLLABUS

1. Course title:

Machine elements 2

2. Code:

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

7. Class restrictions:

8. Duration / semester:

1 4

9. Weekly contact hours:

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

10. Faculty:

Faculty of Mechanical Engineering

11. Department/study program:

Mechatronic / Mechatonic

12. Lecturer:

dr.sc. Almir Osmanović, Assistant Professor

13. Lecturer's e-mail:

almir.osmanovic@untz.ba

14. Web site:

www.mf.untz.ba

15. Course aims:

Training of students for the construction of machine elements and systems.

16. Learning outcomes:

The acquired knowledge will be used in further education within the other subjects.

17. Course content:

Disconnect couplings. Separable couplings, special couplings. Hydrodynamic lubrication theory. Construction of radial bearings. Construction of axial bearings. Characteristics of rolling bearings, lubrication of rolling bearings. Sealing of roller bearings. Basic parameters of chain transmission, carrying capacity and calculation of chain transmission. Function of friction transmission. Kinematics of the belt transmission, forces and tension. Power transmission with gears, force and torque load on gears with parallel shafts. Basic conical gear, force and load. The basics of hypoid gears and shaft forces. Worm gears, force and shaft load at the gear unit.

18. Learning methods:

Lectures, auditorial exercises, assignments, project paper graphic works, consultations.
Interactive communication with course participants.

19. Assessment methods:

During the semester, two tests will be held, which will contain two computational tasks and short questions that will cover the subject matter presented in the lectures. Students are required to finished papers work during the semester. After completing the minimum number of points through attendance, tests and graphical work the student reaches the final oral part of the exam. Before completing a final exam, a student who has not achieved 50% points on any of the tests can not access the exam. On the oral exam, the student answers only the theoretical questions.

20. Assessment components:

Evaluation will be based on the following activities:
Presence of lectures (lectures and exercises) - 2 points
Assignments, project paper / graphic works (5 graphic works x 3 points) - 13 points
Written examination - Tests tasks (2 x 12.5) - 25 points
Theoretical part of exam (2 x 15) 30 - points
Final Exam (Oral) - 30 points
Total: 100 points

21. Required reading list:

Pašaga M., Islamović F., Šarić B., 2010. Mašinski elementi III. Bihać: Grafičar Bihać.
Vitas D.J., Trbojević M.D., 1979. Mašinski elementi II. Beograd: Naučna knjiga.
Vitas D.J., Trbojević M.D., 1981. Mašinski elementi III. Beograd: Naučna knjiga.

22. Web sources:

23. Applicable starting from the academic year:

2015/16

24. Adopted in the Faculty/Academy session:

01.06.2015