SYLLABUS

1. Course title:

KINEMATICS

2. Code:

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(●) Mandatory ( ) Elective

6. Prerequisites:

To attend lectures from Kinematics, attend exercises

7. Class restrictions:

8. Duration / semester:

1 2

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:

Energy Engineering, Production Machinery, Mechatronics

12. Lecturer:

dr.sc. Seniha Karić, docent

13. Lecturer's e-mail:

seniha.karic@untz.ba

14. Web site:

www.mf.untz.ba

15. Course aims:

The aim of the course is to convey to students of knowledge and skills in the field of kinematics. Training for solving tasks in the field of Kinematics.

16. Learning outcomes:

Based on the knowledge gained during listening, students will be able to calculate kinematics tasks by analytical and graphing methods. Also assess what kind of movement is and how to deal with it. The acquired knowledge is necessary for solving kinematic tasks as well as as basic principles for the study of other objects in the field of rigid mechanics: Dynamics and oscillations, Mechanisms and dynamics of machines and others.

17. Course content:

• Kinematics point
• Kinematics of basic body movements
• Kinematics of the solid body
• Straight movement of the body
• Spherical movement of the body
• The general case of moving the free body
• Complex movement of the point
• Complex movement of the body
• Introduction to dynamics
• Dynamics of the point

18. Learning methods:

-Learning through the use of multimedia resources, active learning techniques and active participation of students;
- Auditive exercises;
- Creating a task.

19. Assessment methods:

After half of the semester students write a test (first interviews) that covers the topic of lectures and exercises. The test consists of tasks and theoretical questions that are evaluated individually. The task test consists of two multiple choice tasks. The first intermediate student can achieve a maximum of 15 points (50% or 7.5 points of the passed course), and the test of the theory can reach 15 points (40% or 3 points from the completed course). After completing the semester, the students write a written test (second interviews) that covers the topics covered by the lectures and exercises from the second part of the semester. The test consists of tasks and theoretical questions that are evaluated individually. The task test consists of multiple choice tasks. The student can score up to 15 points (50% or 7.5 points from the passing course), and on the theory test can achieve 15 points (40% or 3 points from the passing time). Both tests put all the students on the subject at the same time, thereby achieving the level of knowledge that is being tested and the conditions under which the student takes the exam. For the presence of this continuous activity on lectures and exercises throughout the semester, the student can achieve 0 to 5 points.
The final exam consists of two parts: written and oral. All students have the right to go to the final exam. The written part of the exam consists of assignments that cover the entire exam where students can achieve 30 points, of which at least 15 points.
On an oral exam, the student answers the questions from the curriculum program handled in lectures and exercises. An oral exam can be passed if the student answers most questions. If the student does not pass the oral exam, the points from the written part of the final exam are also canceled. The maximum number of points a student can earn on an oral exam is 20. To have a student to take an oral exam, must have at least 34 points achieved. If the student does not have the minimum for the oral exam, the written points of the exam are cumulatively collected and added to the exam, which is obligatory to pass both written and oral exams. The correction exam is as well as final. In order for a student to pass an exam, they must earn a minimum of 54 points.

20. Assessment components:

The assessment of the exam is based on the total number of points the student has obtained by fulfilling the pre-requisites and passing the exam according to the quality of the acquired knowledge and skills, and it contains a maximum of 100 points and is determined according to the following scale:
Student credit score
Presence of lectures
And exercises and activity 5
Mini test tasks 2X15
Mini test theory 2X7.5
Total prepayments 50
Final Exam Written (Tasks + Theory) 30
Oral 20

21. Required reading list:

1. Doleček V. (2005) Kinematics. Faculty of Mechanical Engineering. Sarajevo.
2. Karabegović I. (1994) Technical Mechanics 2-Kinematics. Univerzitetska knjiga. Sarajevo.
3. Doleček V. (1984) Kinematics collection of tasks with theories from the theory. Light. Sarajevo.

22. Web sources:

23. Applicable starting from the academic year:

2015/16

24. Adopted in the Faculty/Academy session:

01.06.2015