SYLLABUS

1. Course title:

Constructive geometry

2. Code:

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

no

7. Class restrictions:

Students of the first year of study at the Faculty of Mechanical Engineering (I cycle of studies)

8. Duration / semester:

1 1

9. Weekly contact hours:

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

10. Faculty:

Faculty of Mechanical Engineering

11. Department/study program:

Production Machinery, Power Engineering, Mechatronics

12. Lecturer:

Dr. Sc. Denijal Sprečić, full professor

13. Lecturer's e-mail:

denijal.sprecic@untz.ba

14. Web site:

http://mf.untz.ba/

15. Course aims:

Introduce students with the basic rules and methods necessary to solve tasks from constructive geometry.

16. Learning outcomes:

At the end of the semester successful students who continued to perform their duties throughout the teaching period will be trained to:
- using basic rules and methods to solve tasks in the field of constructive geometry,
- represent different forms (bodies) in orthogonal projection and axonometry.

17. Course content:

• Introduction to constructive geometry, orthogonal projection and and axonometry
• Drafting projection modes
• Quadratic and symmetrical planes, octants
• Projection of point and point in a special position
• Projection of rights and rights in a special position
• Plane in general and plane in a special position
• Right, point and plane, mutual relationships
• Cross-section of two planes and cross-section more than two planes
• Proper polyhedra, bodies in axonometry and orthogonal projection
• Transformation and rotation
• Afinity and colineation, application
• Cross-section the body with the plane, developing the mantle
• Cross-section of planar and oblique body with plane, cross-section of the ball
• Produce bodies in axonometry and orthogonal projection

18. Learning methods:

- Lectures (dealing with teaching units that are defined by the content of the course),
- Laboratory exercises (held in accordance with the intended curriculum and monitoring the works within teaching units),
- Colloquy (continuous knowledge examination),
- Graphic works,
- Consultation

19. Assessment methods:

The methods of knowledge checking are: graphic works, colloquia, final exam (written).

- Regular attendance and teaching activities (lectures and exercises) carry a maximum of 10 points,
- Graphic works contain tasks that the student needs to solve and submit to the end of the semester. The total number of points a student can win for a given graphic work is a maximum of 15 points.
- Columns represent the form of continuous checks that are defined during the semester and within which students Solving tasks from certain areas. The sum of the points from each colloquium that a student can win is a maximum of 30 points.
- Final exams are submitted in writing after the pre-fulfilled conditions regarding regular attendance and teaching activity and dedicated graphic works. At the final exam, the student can win a maximum of 45 points.

Rating system: (10) + (15) + (30) + (45) = (100) points

Rating	Descriptive	Slow	For a score of points
5 (five)	"Fails"	"F"	0-53 points
6 (six)	"sufficient"	"E"	54-63 points
7 (seven)	"good"	"D"	64-73 points
8 (eight)	"superb"	"C"	74-83 points
9 (nine)	"outstanding"	"B"	84-93 points
10 (ten)	"excellent"	"A"	94-100 points

In order for a student to obtain a signature and to enter the final exam, it is necessary to fulfill the following conditions:
- attend to 80% of lectures and exercises,
- to submit graphic works,
- to fulfill all the other conditions that the subject teacher places during the semester.

Summarized points are collected from all student activities during the semester to the final exam. If the student has obtained the required score for the pass grade, the grade can be entered in the index. If the student has not achieved the required number of points, additional points can be obtained on the final written exam.

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:
• attendance and activity on lectures (lectures and exercises) - maximum 10 points,
• graphic works - maximum 15 points,
• colloquiums - maximum 30 points,
• final exam (written) - maximum 45 points.

21. Required reading list:

1. D., Sprečić, Konstruktivna geometrija-zadaci, PRINTCOM d.o.o., Tuzla, 2010.
2. V., Đurović, Nacrtna geometrija, jedanaesto izdanje, Naučna knjiga, Beograd, 1985.
3. K., Baldasar, I., Babić, Nacrtna geometrija, SAND d.o.o., Zagreb, 2000.

22. Web sources:

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session:

01.06.2015