

SYLLABUS

1. Course title:

DESCRIPTIVE GEOMETRY AND ENGINEERING DRAWING

2. Code:

LRUDNGKP

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

Mandatory

6. Prerequisites:

Lectures and practice classes attended

7. Class restrictions:

No

8. Duration / semester(s):

1

2

9. Weekly contact hours and student workload:

10. Faculty:

Mining, Geology and Civil Engineering

11. Department/study program:

Mining Engineering

12. Lecturer:

PhD Adila Nurić Full Professor

13. Course aims:

- familiar students with methods for the plane presenting of existing or imaginative space forms, so that the drawings can be determined shape, size and position in space of those forms
- develop the ability to feel space

- increasing of verbal and written students communications skills
- providing a continual work of students during the course time
- achieve a mutual communications between students and professors

14. Learning outcomes:

The students will be trained for:

- successful examination
- understanding of contents of this course for practical problems solutions
- professional literature using for practical problems solutions
- individual and/or team problems solving

15. Course content:

Introduction; Types of Projections; Orthogonal Projection; Projection Planes.

- Projection of a Point: Plane of Symmetry and Coincidence; Perspective Affinity and Collineation.
- Projection of a Line Segment and a Direction: Plane in a General Position; Point and Line in a Plane; Intersection of a Line and a Plane; Perpendicularity of a Line and a Plane; Plane Folding.
- Projection onto Three or More Projection Planes: Side View and Auxiliary View (Transformation).
- Projection of Geometric Figures and Solids.
- Intersection of Geometric Solids with a Plane in a General Position.

Introduction to Dimensioned Projection:

- Scales; Point, Line Segment, and Direction.
- Plane; Contour Lines; Practical Application of Dimensioned Projection in Engineering Practice: Embankments and Excavations; Platforms and Access to Platforms.
- Terrain Tracing Using the Method of Laying Embankment and Excavation Planes.
- Topographical Surfaces: Intersection of Topographical Surfaces with a Plane.
- Horizontal Straight and Curved Roads on Flat Terrain; Straight and Curved Roads on Sloped Terrain.
- Drainage Channels.

16. Learning methods:

- Lectures
- Practice classes
- Individual tasks
- Knowledge tests

17. Assessment methods:

For the assessment of acquired knowledge in the subject, the following are used:

- Attendance at lectures and exercises
- Individual assignments
- Test

After completing specific course sections, the instructor will organize tests consisting of a certain number of tasks to assess students' acquired knowledge.

- Final exam

To receive a grade, the student must pass all tests but is not required to pass a previous test before taking the next one. During knowledge assessments, students are not allowed to use literature.

18. Assessment components:

GRADING AND EVALUATION SYSTEM

- Attendance at lectures and exercises: 10 points
- Individual assignments: 20 points
- Test: 20 points
- Pre-exam obligations: 50 points
- Final exam: 50 points
- TOTAL: 100 points

The final success of the student, after all prescribed forms of knowledge assessment, is evaluated using a system comparable to the ECTS grading scale, as follows:

- 10 (A) – Outstanding performance with no or minimal errors, 95-100 points
- 9 (B) – Above average, with some errors, 85-94 points
- 8 (C) – Average, with noticeable errors, 75-84 points
- 7 (D) – Generally good but with significant shortcomings, 65-74 points
- 6 (E) – Meets the minimum criteria, 54-64 points
- 5 (F, FX) – Does not meet the minimum criteria, less than 54 points

19. Mandatory reading list:

1. Haso Bećirović; Nacrtna geometrija sa tehničkim crtanjem i zbirkom zadataka, Tuzla 2000.
2. Izudin Bajrektarević; Kotirana projekcija, Tuzla 2008.
3. Izudin Bajrektarević, Josip Malekin; Zbirka riješenih zadataka iz Nacrtna geometrije, Tuzla 2019.

20. Additional reading list:

1. Vilko Niče; Deskriptivna geometrija prvi i drugi svezak, Zagreb 1979. i 1980.

21. Web sources:

22. Applicable from the academic year:

2025/26

23. Adopted in the Faculty/Academy session: