

Title Descriptive geometry	Code 1010101211010340319
Field Environmental Engineering First-cycle Studies	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 1 Classes: 1 Laboratory: - Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

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Status of the course in the study program:

General course.

Assumptions and objectives of the course:

To give an knowledge of the methods of one-to-one transformation of three dimensional objects to plane.

Contents of the course (course description):

1. Orthographic projections of a point, a stright line and a plane (the two-sheet projection of Monge).
2. Prisms. Projections of a prism. Prism sections. Development of a prism.
3. Pyramids. Projections of a pyramid. Section and development of a pyramid.
4. Cylinders. Cylindrical sections. Development of a cylindrical surface.
5. Cones. The conic sections (circle, ellipse, parabola, hyperbola). Projections of a cone. Development a cone.
6. Intersection of various surfaces (cylinders, cones and spheres) and cylinder-prism intersections, cone-prism intersection, cylinder-pyramid intersection. Technical applications.
7. Axonometry. Definition of the orthographic axonometry (isometry, dimetry, trimetry).

Introductory courses and the required pre-knowledge:

Fundamental knowledge in the mathematics.

Courses form and teaching methods:

Lectures and classes.

Form and terms of complete the course - requirements and assessment methods:

Written tests.

Basic Bibliography:

1. W. Jankowski Geometria wykreślna Wyd. PP Poznań 1999
2. Z. Lewandowski Geometria wykreślna PWN Warszawa 1975
3. J. Korczak, Cz. Prętki Przekroje i rozwinięcia powierzchni walcowych i stożkowych Wyd. PP Poznań 1993

Additional Bibliography:

