

Title <b>Engineering Graphics</b>	Code <b>1010101211010100325</b>
Field <b>Environmental Engineering First-cycle Studies</b>	Year / Semester <b>1 / 1</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: -    Projects / seminars: <b>1</b>	Number of credits <b>3</b>
Language <b>polish</b>	

**Lecturer:**

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**Status of the course in the study program:**

Basic course.

**Assumptions and objectives of the course:**

The main aim of the course is to present and discuss principles and notations used in mechanical, building construction and building installation drawings.

**Contents of the course (course description):**

Mechanical drawings. Formats. Scale. Drawing lines. Orthogonal projection. Cross sections, partial views. Dimensioning. Tolerance in dimensioning. Drawings of uncoupled and coupled connections. Execution and complex drawings. Building construction drawings. Graphical notations. Cross section drawings. Degree of accuracy. Graphical notations of construction materials. Dimensioning. Building installation drawings. Drawings of heating, water supply and sewage systems with the application of installation drawing elements. Technological setups of installations used in Environmental Engineering.

**Introductory courses and the required pre-knowledge:**

Descriptptive geometry. Analytic geometry.

**Courses form and teaching methods:**

Lectures. Tutorials ? blackboard case study calculations.

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

Lectures ? final test. Tutorials ? drawing tests.

**Basic Bibliography:**

1. T. Dobrzański Rysunek techniczny maszynowy WNT Warszawa 2001
2. Rysunek techniczny i rysunek techniczny maszynowy. Zbiór Polskich Norm. Wyd.Normalizacyjne ALFA Warszawa 1986
3. A.Bober, M.Dudziak Zapis Konstrukcji Wyd. Politechniki Poznańskiej Poznań 1995
4. E. Misniakiewicz, W. Skowroński Rysunek techniczny budowlany Arkady Warszawa 2007
5. Polskie Normy dot. Rysunku Instalacyjnego

**Additional Bibliography:**