

Title <b>Computer Graphics</b>	Code <b>10103222310103201114</b>
Field <b>Electrical Engineering</b>	Year / Semester <b>2 / 3</b>
Specialty <b>Mechatronic Electric Systems</b>	Course <b>core</b>
Hours Lectures: - Classes: - Laboratory: - Projects / seminars: <b>1</b>	Number of credits <b>0</b>
	Language <b>polish</b>

**Lecturer:**

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

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Specialty: Mechatronic Electric Systems, Full-time second-degree studies

**Assumptions and objectives of the course:**

The student should obtain knowledge of fundamentals of computer graphic

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

Geometrical transformation of rotation, movement and scaling objects in three dimensional (3D) coordinates. 3D object representation in frustum. Primitives. Edge and surface culling. Light and shade. Fundamentals of animation. Application in Delphi and Builder. Graphic library ? OpenGL. Creating objects and animation in 3ds max: modeling, textures, lighting, rendering.

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

Basic knowledge of algorithm, data structures, calculus of vectors, programming in Object Pascal and C++.

**Courses form and teaching methods:**

Lectures supported by transparencies and slides

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

Tests and laboratory reports

**Basic Bibliography:**

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**Additional Bibliography:**

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