GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

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|---|---|---|---|
| Subject name and code | Geometry and Graphics for Engineers, PG_00053409 | | |
| Field of study | Electrical Engineering | | |
| Date of commencement of studies | October 2026 | Academic year of realisation of subject | 2026/2027 |
| Education level | first-cycle studies | Subject group | |
| Mode of study | Full-time studies | Mode of delivery | at the university |
| Year of study | 1 | Language of instruction | Polish |
| Semester of study | 1 | ECTS credits | 2.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Department of Mechatronics and High Voltage Engineering -> Faculty of Electrical and Control Engineering -> Faculties of Gdańsk University of Technology | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr inż. Wiktor Waszkowiak | |
| | Teachers | | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 15.0 | 0.0 | 30.0 | 0.0 | 0.0 | 45 |

E-learning hours included: 0.0

**Learning activity and number of study hours**

| Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
|---|---|---|---|---|
| Number of study hours | 45 | 5.0 | 10.0 | 60 |

**Subject objectives**

The ability to create technical documentation, including electrical documentation, with the use of CAD software supporting design

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| K6_U04 | The student prepares technical documentation in accordance with the applicable standards. | [SU1] Assessment of task fulfilment |
| K6_K01 | The student selects the appropriate tools to support design for teamwork | [SK1] Assessment of group work skills |
| K6_W11 | The student describes the principles of orthographic projection and explains the methods of presenting views and cross sections of machine elements. | [SW1] Assessment of factual knowledge |

**Subject contents**

Course content – lecture
Lecture:

Graphical representation of spatial elements on a plane: orthographic projection; basic concepts concerning the structure and rules of its drawing, types of structure notation, drafting paper sizes and scales; methods of graphical representation of the structure and dimension system; graphic representation of construction connections; detachable and non-detachable connections; assembly drawings and detail drawings;

computer laboratory:

the rules for creating drawings using of AutoCad software; graphic representation of electrical systems; presentation of selected graphic symbols used in mechanics, electrical engineering, automatics and power engineering.

**Prerequisites and co-requisites**

Basic computer skills

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Design task during laboratory classes</td><td>50.0%</td><td>50.0%</td></tr>
<tr><td>Theory test</td><td>50.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>1. Dobrzański T.: Rysunek techniczny maszynowy. Warszawa: WNT, 1998<br>2. Mazur J., Kosiński k., Polakowski K. Grafika inżynierska z wykorzystaniem metod CAD. Oficyna Wydawnicza Politechniki Warszawskiej. Warszawa 2004.<br>3. Pikoń A. AutocCAD PL. Helion. Gliwice 2006.</td></tr>
<tr><td>Supplementary literature</td><td>www.cad.pl</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Perform technical documentation stated object.</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
</table>

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