



Subject card

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| Subject name and code | Engineering Graphics II, PG_00039411 | | | | | | |
| Field of study | Mechatronics, Mechatronics | | | | | | |
| Date of commencement of studies | October 2020 | Academic year of realisation of subject | | | 2020/2021 | | |
| Education level | first-cycle studies | Subject group | | | Obligatory subject group in the field of study Subject group related to scientific research in the field of study | | |
| Mode of study | Full-time studies | Mode of delivery | | | at the university | | |
| Year of study | 1 | Language of instruction | | | Polish | | |
| Semester of study | 2 | ECTS credits | | | 2.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Machine Design and Vehicles -> Faculty of Mechanical Engineering and Ship Technology | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. inż. Waldemar Karaszewski | | | | | |
| | Teachers | mgr inż. Katarzyna Mazur dr inż. Katarzyna Zasińska | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 0.0 | 15.0 | 0.0 | 15 |
| | E-learning hours included: 0.0 | | | | | | |
| Engineering Graphics II - Moodle ID: 13550 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=13550 | | | | | | | |
| 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 | 15 | 5.0 | | 30.0 | 50 | |
| Subject objectives | The aim of the course is to learn the principles of drawing machine parts, connections used in machine construction and preparation of assembly drawings. | | | | | | |

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| Learning outcomes | Course outcome | Subject outcome | Method of verification |
| | K6_W04 | A student draws based machine elements according to machine technical drawing standards. He creates working and assembly drawings of machine elements. He reads information about machine elements based on presented elements and units drawings. He draws and reads structural forms of three-dimensional mechanical elements and mechanical units. He reads diagrams of complex mechanical systems. | [SW1] Assessment of factual knowledge |
| | K6_U06 | A student draws based machine elements according to machine technical drawing standards. He creates working and assembly drawings of machine elements. He reads information about machine elements based on presented elements and units drawings. He draws and reads structural forms of three-dimensional mechanical elements and mechanical units. He reads diagrams of complex mechanical systems. | [SU1] Assessment of task fulfilment |
| | K6_U05 | A student draws based machine elements according to machine technical drawing standards. He creates working and assembly drawings of machine elements. He reads information about machine elements based on presented elements and units drawings. He draws and reads structural forms of three-dimensional mechanical elements and mechanical units. He reads diagrams of complex mechanical systems. | [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment |
| Subject contents | Principles of assembly drawings. Permanent joints presentation of machine elements (welded, glue, rivet joints). Temporary fastenings presentation of machine elements (screw, shaft-hub joints). Presentation ways of standardized machine elements (bearings, gears, clutches, brakes, shafts and axles). Presentation ways of springs and seals. Basic information about technical drawings in electrotechnics and electronics, electric diagrams. Pneumatics and hydraulics diagrams. Drawings and machine diagrams practical reading. Introduction to computer graphics. | | |
| Prerequisites and co-requisites | Engineering Graphics I Based knowledge of theory of machines and metrology. | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | Final exam | 60.0% | 60.0% |
| | Design tasks | 60.0% | 40.0% |
| Recommended reading | Basic literature | Dobrzański T. : Technical and machine drawing. WNT, Warsaw, 2017. Rigall A., Sadaj J. : Technical drawing - Descriptive geometry, Gdansk University of Technology, 2003. | |
| | Supplementary literature | Kurmaz L.W.: Designing nodes and machine parts, publishing house of the Kielce University of Technology, 2007 | |
| | eResources addresses | | |

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| Example issues/ example questions/ tasks being completed | Preparation of the assembly drawing of the welded joint Making an assembly drawing of a screw connection Preparation of the assembly drawing of the drive unit system |
| Work placement | Not applicable |