



Subject card

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| Subject name and code | ADVANCED CAD SYSTEMS, PG_00041295 | | | | | | |
| Field of study | Civil Engineering | | | | | | |
| Date of commencement of studies | February 2025 | | Academic year of realisation of subject | | 2025/2026 | | |
| Education level | second-cycle studies | | Subject group | | Optional 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 | 2 | | ECTS credits | | 3.0 | | |
| Learning profile | general academic profile | | Assessment form | | assessment | | |
| Conducting unit | Department of Metal Structures -> Faculty of Civil and Environmental Engineering | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | mgr inż. Paweł Pieczka | | | | |
| | Teachers | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 30 |
| | 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 | 30 | | 5.0 | | 40.0 | 75 |
| Subject objectives | <p>Student knows the possibilities offered by the software dedicated to 3D-modelling, detailing and dimensioning of the steel structures.</p> <p>Student learns how to use basic tools and functions of the selected software dedicated to 3D-modelling, detailing and dimensioning of the steel structures.</p> <p>Student learns the principles of the preparation of the steel structures workshop documentation.</p> | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | [K7_U15] has advanced skills in civil engineering within offered specialization/profile | | Student is able to use software dedicated to 3D-modelling, detailing and dimensioning of the steel structures. | | [SU1] Assessment of task fulfilment | | |
| | [K7_W02] knows principles of analysis, design and dimensioning of complex constructions and its elements | | Student knows the principles of the use of the software dedicated to 3D-modelling, detailing and dimensioning of the steel structures. | | [SW1] Assessment of factual knowledge | | |
| | [K7_U02] can design and dimension complex steel, concrete (including reinforced), wood and masonry constructions and its details | | Student is able to design and dimension selected connections of the steel structures. | | [SU1] Assessment of task fulfilment | | |
| Subject contents | <p>Demonstration of the selected software dedicated to 3D-modelling, detailing and dimensioning of the steel structures.</p> <p>Modelling of the beam and plate elements. Modelling of the 2D and 3D structures.</p> <p>Modelling of the connections: bolts and welds. Collision checks.</p> <p>Generating workshop drawings and deliverables.</p> | | | | | | |
| Prerequisites and co-requisites | | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | Test | | 60.0% | | 50.0% | | |
| | Project | | 60.0% | | 50.0% | | |
| Recommended reading | Basic literature | | Autodesk Advance Steel - User's Guide. | | | | |

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| | Supplementary literature | - |
| | eResources addresses | Adresy na platformie eNauczanie: |
| Example issues/ example questions/ tasks being completed | Creating 3-D model of the steel structures. Generating workshop drawings and deliverables. | |
| Work placement | Not applicable | |

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