



Subject card

| | | | | | | | |
|---|---|---|-------------------------------------|------------|--|---------|-----|
| Subject name and code | Descriptive geometry, PG_00055590 | | | | | | |
| Field of study | Architecture | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | 2022/2023 | | |
| Education level | first-cycle studies | Subject group | | | Obligatory subject group 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 | 1 | ECTS credits | | | 4.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Visual Arts -> Faculty of Architecture | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr inż. arch. Anna Wanclaw | | | | | |
| | Teachers | mgr inż. arch. Michał Malewczyk mgr inż. arch. Dariusz Cyparski | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 0.0 | 0.0 | 15.0 | 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 | 8.0 | | 47.0 | | 100 |
| Subject objectives | Development of the ability of spatial manipulation in two dimensional drawing. Acquiring skills in using axonometric drawing. | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design | He knows various methods of mapping space. Correctly constructs and reads spatial objects in various types of projections, also with the use of popular digital programs. | | | [SW1] Assessment of factual knowledge | | |
| | [K6_U04] is able to use analytical methods to formulate and solve project tasks | He can use various methods of space mapping to solve simple spatial problems. He can present the effects of work in an attractive way. Has manual skills in the precise execution of linear drawings. | | | [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject | | |

Subject contents

Descriptive Geometry, lecture:

1. Introduction, elements of the space, projection, Monge projections
2. Projection of point, line and plane
3. Common elements, shadows
4. Parallelism, perpendicularity, transformation
5. Construction of polyhedrons,
6. Sections of polyhedrons, compounds of collineation
7. Revolution, developments of polyhedrons
8. Piercing points, intersection of polyhedrons
9. Orthogonal axonometric projection
10. Oblique axonometric projection
11. Geometry of roofs
12. Spatial model of the roof, digital visualization
13. Horizontal projection
14. Horizontal projection, engineering application
15. The road in the terrain

Descriptive Geometry, project:

1. Introduction, elements of the space, projection, Monge projections
2. Projection of point, line and plane, transformation
3. Affiliation of elements
- 4, 5. Common elements, shadows
6. Construction of polyhedrons,
7. Sections of polyhedrons, compounds of collineation
8. Revolution, developments of polyhedrons, piercing points,
9. Intersection of polyhedron with line

| | | | |
|--|---|---|-------------------------------|
| | <p>10. Test 1. Common elements, shadows. Polyhedrons</p> <p>11, 12. Orthogonal axonometric projection, intersection of polyhedrons</p> <p>13, 14. Oblique axonometric projection, shadows</p> <p>15. Test 2. Axonometry</p> | | |
| Prerequisites and co-requisites | | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | Aquiring minimum points form Descriptive Geometry reviews | 51.0% | 50.0% |
| | Quality of drawings from Descriptive Geometry | 100.0% | 50.0% |
| Recommended reading | Basic literature | Górska Renata, <i>Descriptive geometry. Freshman Level Course Addressed to the Engineering Students</i> Wyd. Polit. Krakowskiej 2013 | |
| | Supplementary literature | <p>Błach A., <i>Inżynierska geometria wykreślna</i>, Gliwice 2002</p> <p>Grochowski B., <i>Geometria wykreślna z perspektywą stosowaną</i>, PWN 2018</p> <p>Otto F.E., <i>Geometria wykreślna</i>, PWN 1977</p> | |
| | eResources addresses | <p>Adresy na platformie eNauczenie:</p> <p>Geometria wykreślna I, 2022/23 - Moodle ID: 25265</p> <p>https://enauczenie.pg.edu.pl/moodle/course/view.php?id=25265</p> | |
| Example issues/ example questions/ tasks being completed | <p>1. Construct shadows of polyhedra and line</p> <p>2. Construct projections of the polyhedron, based on the data of the axis of symmetry and one of the vertices</p> <p>3. Construct the line of intersection of two given polyhedra</p> <p>4. In axonometry defined by axes x, y, z construct a polyhedron and its own shadow and the shadow cast on the planes of projection</p> | | |
| Work placement | Not applicable | | |

Document generated electronically. Does not require a seal or signature.