



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Graphic notation of construction [S1Elmob1>GZK2]

### Course

Field of study

Electromobility

Year/Semester

1/2

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

30

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

### Number of credit points

3,00

### Coordinators

dr inż. Krzysztof Kowalski

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### Lecturers

dr inż. Krzysztof Kowalski

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### Prerequisites

The student starting this course should have basic knowledge in the field of creating and analyzing documentation of technical objects. The ability to use the acquired knowledge, methods and tools to solve typical engineering tasks.

### Course objective

Acquiring the ability to use computer software supporting the process of designing technical objects and creating graphic documentation of machine elements. Acquiring computer skills for mapping simple elements of technical structures in two-dimensional and three-dimensional systems.

### Course-related learning outcomes

Knowledge:

Basic knowledge of mechanics, including vehicle dynamics; knows and understands the basic principles of graphic representation of structures in engineering applications.

Skills:

He can prepare documentation of an engineering task in accordance with a given specification and using

appropriate methods, techniques, tools and materials.

Social competences:

Understands the importance of improving professional, personal and social competences; is aware that knowledge and skills in the field of electromobility are evolving rapidly.

Understands the importance of knowledge in solving problems in the field of electromobility; is aware of the necessity to use the knowledge of experts when solving engineering tasks beyond their own competences.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Laboratory:

The skills acquired during the laboratory classes are verified on the basis of current tasks carried out during the classes and control work. Passing threshold: 50% of points.

### Programme content

Laboratory:

Two-dimensional problems in the engineering drawing of technical construction. Graphical representation of machine parts, executive drawings. Characteristics of modern computer-aided design systems with particular emphasis on AutoCAD. Basic elements and tools of AutoCAD environment. The use of AutoCAD for creating and editing technical documentation. Implementation of design tasks using the AutoCAD system. Extraction of design data and data exchange between various CAD systems.

### Teaching methods

Laboratory:

Design exercises using the learned AutoCAD modeling and visualization tools.

### Bibliography

Basic

1. Pikoń A., AutoCAD 2021PL: pierwsze kroki, Helion, Gliwice 2020

2. Jaskólski A., AutoCAD 2020/LT 2020 (2013+) : podstawy projektowania parametrycznego i nieparametrycznego : wersja polska i angielska, Wydawnictwo Naukowe PWN SA, Warszawa 2019

3. Documentation of the AUTOCAD system.

Additional

1. AutoCAD online resource.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	80	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00