



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer aided design of mode of transportation [N1Trans1>KWPŚT]

### Course

Field of study

Transport

Year/Semester

3/5

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

### Number of hours

Lecture

18

Laboratory classes

9

Other

0

Tutorials

0

Projects/seminars

0

### Number of credit points

4,00

### Coordinators

dr hab. inż. Przemysław Tyczewski  
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### Lecturers

### Prerequisites

Basic knowledge of techniques, methods and tools used in the process of designing means of transport.

### Course objective

Use of AutoCAD as a support tool in technical development project documentation. Developing the ability to create tools supporting design calculations.

### Course-related learning outcomes

Knowledge:

The student has an ordered, theoretically founded general knowledge of technology, transport systems and various means of transport

The student knows the basic techniques, methods and tools used in the process of solving tasks in the field of transport, mainly of an engineering nature engineering

Skills:

The student is able to design elements in the field of transport engineering and construct simple machines

Social competences:

Correctly identifies and resolves dilemmas related to the profession of a transport engineer.fe

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

The student understands that in technology, knowledge and skills very quickly become obsolete

The student correctly identifies and solves dilemmas related to the profession of a transport engineer

### Programme content

Learning the basic features and functions of AutoCAD. Knowledge of drawing and modification tools.

Working with functions: hatch, fill. Getting to know the tools supporting dimensioning. Using the object-oriented programming environment to create software tools supporting design. Creating program code in an object-oriented programming environment. Using compound statements in the program.

Development of a computer program on the basis of an exemplary calculation algorithm.

### Course topics

Learning the basic features and functions of AutoCAD. Knowledge of drawing and modification tools.

Working with functions: hatch, fill. Getting to know the tools supporting dimensioning. Using the object-oriented programming environment to create software tools supporting design. Creating program code in an object-oriented programming environment.

### Teaching methods

1. Lecture with multimedia presentation
2. Laboratory exercises - solving problems

### Bibliography

Basic

1. Pikoń A., AutoCAD 2007 PL. Helion, Warszawa 2007

2. Biernat J., Tworzenie prostych programów użytkowych w Delphi. Mikom, Warszawa 2003.

Additional

1. Dietrych J., Rysunek techniczny jako zapis konstrukcji. Wyd. Polit. Śląskiej, Gliwice, 1979

### Breakdown of average student's workload

|                                                                                                                                         | Hours | ECTS |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------|------|
| Total workload                                                                                                                          | 90    | 4,00 |
| Classes requiring direct contact with the teacher                                                                                       | 27    | 1,00 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 63    | 3,00 |