



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Cooling automatics [S1Trans1>ACh]

### Course

Field of study

Transport

Year/Semester

3/6

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

15

Other

0

Tutorials

0

Projects/seminars

0

### Number of credit points

1,00

### Coordinators

dr inż. Tomasz Rochatka

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### Lecturers

### Prerequisites

Has basic knowledge of physics, mechanics and strength of materials

### Course objective

Getting to know the elements of automatic coolers

### 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 has knowledge of important development trends and the most important technical achievements and of other related scientific disciplines, in particular transport engineering

Skills:

The student is able to take into account in the process of formulating and solving tasks in the field of transport engineering also non-transport aspects, in particular social, legal and economic issues

Student is able to make a critical analysis of the functioning of transport systems and other technical

solutions and to evaluate these solutions, including: is able to effectively participate in the technical inspection and assess the transport task from the point of view of non-functional requirements, has the ability to systematically conduct functional tests

Social competences:

The student is aware of the social role of a technical university graduate, in particular, he/she understands the need to formulate and transfer to the society, in an appropriate style, information and opinions on engineering activities, technological achievements, as well as the achievements and traditions of the transport engineer profession

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Credit based on the test of knowledge of the lectures and the current control of preparation for laboratory exercises and assessment of their course and reports.

### Programme content

Scientific knowledge. Development of automation, concepts related to automation, automatic systems, methods of regulating refrigeration systems, regulation and control of compressors, evaporators and condensers, controllers of cooling systems.

### Course topics

none

### Teaching methods

1. Lecture with multimedia presentation
2. Laboratory with taking measurements

### Bibliography

Basic

1. Bonca Z. Automatyka chłodnicza i klimatyzacyjna. Wyd. WSM Gdynia 1995.
2. Ullrich H.J., Technika chłodnicza - poradnik. IPPU MASTA, Gdańsk 1998.

Additional

### Breakdown of average student's workload

	Hours	ECTS
Total workload	35	1,00
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)	5	0,00