COURSE DESCRIPTION CARD - SYLLABUS

Course name
Electrical engineering in means of transport [S1Trans1>EwŚT]

Course

Field of study
Transport

Year/Semester
2/4

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
30

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

4,00

Coordinators

dr inż. Ryszard Mańczak
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Lecturers

Prerequisites

The student has a basic knowledge of the basics of electrical engineering and electronics.

Course objective

Getting to know theoretical and practical problems related to the functioning and diagnosis of electrical and electronic systems of motor vehicles.

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:
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 understands that in technology, knowledge and skills very quickly become obsolete.
The student is aware of the importance of knowledge in solving engineering problems, knows examples and understands the causes of malfunctioning transport systems that have led to serious financial and social losses or to serious loss of health and even life.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
Test on end of semester and evaluation of reports.

Programme content

Lighting systems, light sources, alternators, starters, sensors used in vehicles.

Course topics

none

Teaching methods

Auditorium lecture, laboratory classes.

Bibliography

Basic
1. Ocioszyński J., Zespoły elektryczne i elektroniczne w samochodach, WNT, Warszawa 1999.
2. Sitek K., Diagnostyka samochodowa, Wydawnictwo AUTO, Warszawa 1999.
3. Kowalski B., Badania i diagnostyka samochodowych urządzeń elektrycznych, WKiŁ, W-wa 1981.
Additional
1. Czujniki w pojazdach samochodowych. Informator techniczny BOSCH, WKiŁ, W-wa 2002.

Breakdown of average student's workload

	Hours	ECTS
Total workload	90	4,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	45	2,00