COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technology of repair of food transport vehicles

Course

Field of study

Transport

Year/Semester

4/7

Area of study (specialization)

Food transport

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

polish

Form of study

part-time

Requirements

elective

Number of hours

Lecture

18

Laboratory classes

9

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

dr inż. Aleksandra Rewolińska

email: aleksandra.rewolinska@put.poznan.pl

tel. 61 665 2232

Responsible for the course/lecturer:

Prerequisites

Knowledge: Has basic knowledge in the field of construction, technology and operation of machines.

Skills: Can characterize the basic methods of mechanical processing.

Social competences: Can think and act creatively.General knowledge in the field of study and detailed knowledge related to the selected specialization.

Course objective

Acquainting with the organization and planning of maintenance and repair works as well as methods of restoring vehicle fitness

Course-related learning outcomes

Knowledge

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

2. The student has a basic knowledge of the life cycle of means of transport, both equipment and software, and in particular about the key processes occuring in the product life cycle

3. 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

1. Student is able, when formulating and solving tasks in the field of transport, to apply appropriately selected methods, including analytical, simulation or experimental methods

2. The student is able to design elements of means of transport using data on environmental protection

3. The student is able to organize, cooperate and work in a group, assuming various roles in it, and is able to properly define priorities for the implementation of a task set by himself or others

Social competences

Is aware of the importance of maintaining the suitability of food transport means and the associated responsibility for decisions made

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

1. 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

Programme content

General characteristics of the truck fleet and repair plants in Poland. Characteristics of maintenance and repair systems and methods of repairing motor vehicles. Eligibility of vehicles for repair. Stages of the technological process of vehicle repair. Discussion individual stages - disassembly, verification, cleaning, assembly. Examples of technological repair processes. Technological documentation of the repair process. Vehicle damage. Repair methods - replacement of parts, repair by machining, repair of parts by gluing, regeneration by spray metallization, repair of parts by welding, regeneration of parts by electroplating.

Teaching methods

1. Lecture with multimedia presentation

2. Exercise method (subject exercises, practice exercises) - in the form of auditorium exercises

3. Laboratory (experiment) method (independent conducting of experiments by students)

Bibliography

Basic

1. Nosal S., Inżynieria odnowy maszyn : wybrane zagadnienia – Wydanie I. – Poznań, 2017

2. Jósko M., Kowalczyk J., Mańczak R., Nosal S., Ulbrich D., Inżynieria odnowy pojazdów samochodowych, Tom 1 Inżynieria obsługiwania Poznań, 2019

3. Jósko M., Kowalczyk J., Mańczak R., Nosal S., Ulbrich D., Inżynieria odnowy pojazdów samochodowych, Tom 2 Inżynieria naprawy Poznań, 2019

4. Cypko J., Cypko E. Podstawy technologii i organizacji napraw pojazdów mechanicznych. Wkił,

Warszawa 1989

5. Kostrzewa S., Nowak B. Podstawy regeneracji części pojazdów mechanicznych. WKiŁ, Warszawa, 1986

Additional

1. Nosal S., Tribologia. Wprowadzenie do zagadnień tarcia, zużywania i smarowania, Wyd. Politechniki

Poznańskiej, Poznań 2012.

2. Klimpel A., Napawanie i natryskiwanie cieplne. Technologie, WNT, Warszawa, 2000

3. Adamiec P., Dziubiński P., Regeneracja i wytwarzanie warstw wierzchnich elementów maszyn

transportowych, Wyd. Pol. Śląskiej, Gliwice, 1999

Breakdown of average student's workload

	Hours	ECTS
Total workload	72	4,0
Classes requiring direct contact with the teacher	27	2,0
Student's own work (literature studies, preparation for tutorials, preparation for tests) [1]	45	2,0

[1] delete or add other activities as appropriate