COURSE DESCRIPTION CARD - SYLLABUS

Course name

Transport systems

Course

Field of study

Means of Transport

Year/Semester

3/5

Area of study (specialization)

Heavy duty machinery

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

Polish

Form of study

full-time

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

15

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr inż. Żaneta Staszak

email: zaneta.staszak@put.poznan.pl

tel. 61 665 28 82

Faculty of Civil and Transport Engineering

ul. Piotrowo 3, 60-965 Poznan

Responsible for the course/lecturer:

mgr inż. Jacek Marcinkiewicz

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tel. 61 665 28 82

Faculty of Civil and Transport Engineering

ul. Piotrowo 3, 60-965 Poznań

Prerequisites

KNOWLEDGE: the student has basic knowledge of the basics of machine construction, technical drawing and mathematics in the field of high school.

SKILLS: the student can read and understand technical drawings.

SOCIAL COMPETENCES: the student has basic communication skills.

Course objective

SThe role of transport systems in working machines. Learning about the construction, principles of operation and application of individual groups of conveyors Understanding the principles of functional

and strength calculations of individual types and varieties of conveyors. Transport systems occurring in individual groups of working machines

Course-related learning outcomes

Knowledge

Has basic knowledge of the basics of machine design and the theory of machines and mechanisms, including mechanical vibrations.

Is aware of the latest trends in machine construction, i.e. automation and mechatronization, automation of machine design and construction processes, increased safety and comfort of operation, the use of modern construction materials.

Has extended basic knowledge necessary to understand specialist subjects and specialist knowledge about the construction, construction methods, manufacturing and operation of a selected group of working, transport, thermal and flow machines covered by the diploma path.

Skills

Can apply basic technical standards regarding unification and safety and recycling.

Can perform basic functional and strength calculations of machine elements such as traction, gear, friction, bearings, rolling and sliding gears, clutches, brakes.

Can draw a diagram and a simple machine element by hand in accordance with the rules of technical drawing.

Social competences

Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in case of difficulties in solving the problem on its own.

Is ready to fulfill social obligations and co-organize activities for the benefit of the social environment.

Is ready to fulfill professional roles responsibly, including:
- observing the rules of professional ethics and requiring this from others,
- caring for the achievements and traditions of the profession.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

For discussion and activity during classes. Written credit for the lecture topics. The student is assessed for tasks that are counted during exercises and independently at home. Final credit of exercises.

Programme content

Characteristic features of materials processed / transported / in technological systems of working machines. Conveyors with and without cables. Conveyors with an intermediate medium. Auxiliary devices and devices cooperating with conveyors. Transport systems for individual groups of working machines.

Teaching methods

1. Lectures with multimedia presentation.

2. Sending didactic materials in the form of films, pdf and presentations.

3. Calculation of tasks.

4. Independent task counting.

Bibliography

Basic

1. Goździecki M., Świątkiewicz H.: Przenośniki. WN-T, 1975.

2. Gładysiewicz, L. (2003). Przenośniki taśmowe: teoria i obliczenia. Oficyna Wydawnicza Politechniki Wrocławskiej.

Additional

1. Wojciechowski Ł., Wojciechowski A., Kosmatka T. (2009). Infrastruktura magazynowa i transportowa. Wyższa Szkoła Logistyki.

2. Raczyk R. (2013). Środki transportu bliskiego i magazynowania. Wydawnictwo Politechniki Poznańskiej.

3. Kawalec, W. (2009). Przenośniki taśmowe dalekiego zasięgu do transportu węgla brunatnego. Transport Przemysłowy i Maszyny Robocze, (1), 6-13.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for tutorials, preparation of tutorials, execution of lecture tasks, preparation for tests) [1]	20	1,0

[1] delete or add other activities as appropriate