POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)
pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Construction and operation of machines

Course

Field of study	Year/Semester
Logistics	1/2
Area of study (specialization)	Profile of study
	general academic
Level of study	Course offered in
First-cycle studies	Polish
Form of study	Requirements
part-time	elective

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
12		
Tutorials	Projects/seminars	

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

Ph.D., D. Sc., Eng. Józef Gruszka, University Professor

Mail to: jozef.gruszka@put.poznan.pl

Phone: 665 33 77

ul. J. Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Basic knowledge of technique (sem.1)

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Course objective

To familiarize students with the basic principles of construction, operation and operation of general purpose machines and equipment, which are equipped in an industrial plan

Course-related learning outcomes

Knowledge

knows the basic issues of construction, technology and techniques related to logistics [P6S_WG_01]

knows the basic issues of mechanics, construction and operation of machines related to logistics [P6S_WG_02]

Skills

is able to apply the right experimental and measuring techniques to solve the problem within the studied subject, including computer simulation within logistics and its specific issues, and supply chain management [P6S_UW_03]

is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market, and based on them determine the needs of supplementing knowledge [P6S_UU_01]

Social competences

is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics [P6S_KO_02]

is aware of cooperation and work in a group on solving problems within logistics and supply chain management [P6S_KR_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

in lectures: on the basis of answers to questions about material modified in previous lectures.

Summary summary:

lecture - written test on the basis of previously prepared questionnaire

Programme content

The program of the subject covers the following issues: the genesis of the science of machine construction and operation, Phases of the existence of a technical object, theories of operation. Rules for the construction and operation of equipment. Use of devices. Elements of tribology, friction, wear, surface layer lubrication, Basic issues related to reliability, quality and durability. Machine diagnostics. Types of diagnostic tests. Operation of machinery and equipment related to logistics, Operation of means of transport and storage equipment.

Teaching methods

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monographic with the use of a computer with the division of the content of the program into separate thematic issues in connection

Bibliography

Basic

1. Kijewski J. , Maszynoznawstwo, WSiP, Warszawa 2011

2. Dąbrowski Z, Pakowski R: Maszynoznawstwo; Warszawa 2013;

3. Legutko S., Podstawy eksploatacji maszyn i urządzeń,WSiP Warszawa 2004

4. Gruszka J., Technologiczne kształtowanie cech funkcjonalnych warstwy wierzchniej tulei cylindrowych (w silnikach spalinowych)-Monografia, Wyd.PP, Poznań 2012

Additional

1. S.Legutko Eksploatacja maszyn, Wyd. Politechnika Poznańska. Poznań 2007

2. Rutkowski A.,Części maszy, Wyd.WSiP,1992

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	12	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests, project preparation) [1]	63	2,0

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[1] delete or add other activities as appropriate