STUDY MODULE DESCRIPTION FORM

Name of the module/subject **(-)**		Code **1011101421011126776**
Field of study **Logistics - Full-time studies - First-cycle studies**	Profile of study (general academic, practical) **(brak)**	Year /Semester **1 / 2**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **elective**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**	
No. of hours Lecture: **15** Classes: **-** Laboratory: **15** Project/seminars: **-**		No. of credits **3**
Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**	
Education areas and fields of science and art		ECTS distribution (number and %**)**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge of tribology. Indispensable information within technology and machine parts
2	**Skills**	The ability to acquire knowledge
3	**Social competencies**	The ability to work in a group

Assumptions and objectives of the course:

The aim of the subject is to familiarize the students with the most important information from the operation of the machines, their use and handling. Keeping the operating processes, taking into account the PN. On the basis of information from the drawing, technology and materials science, acquiring the skills to secure the process of machinery and equipment maintenance. Assessment of the reliability of the diagnosis. Designing cycles of technical inspections, repairs and modernisation of equipment

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Has a basic knowledge of: engineering graphics; design, technology, the construction and operation of machinery - [K1A_W05]
2. Has a basic knowledge of: mechanics and machine-building industry as well as the strength of materials - [K1A_W07]

Skills:

1. Is able to independently develop the problem that exists within the studied subject - [K1A_U05]
2. Can make use of analytical, experimental and simulation method which falls within the scope of this area, can solve the project problem in the area of logistics and its detailed concepts (inventory management, logistics, distribution logistics and supply, logistics, ecologistics) and supply chain management - [K1A_U09]

Social competencies:

1. Is aware of the need for lifelong learning; inspiring and organizing the learning process of other persons within the framework of the studied subject areas - [K1A_K01]
2. Is willing to work together and work in a group on the resolution in the framework of the studied subject - [K1A_K03]

Assessment methods of study outcomes

Assessment exercises and test or exam.

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Course description

The program of the subject includes the following subject areas: the genesis of learning about the exploitation, the existence of a technical object, theories of exploitation. Rules for the exploitation of equipment. Use of the devices. Elements of tribology, friction, wear, lubrication, the top layer. Basic issues associated with reliability, quality and durability. Diagnostic machines. Types of diagnostic tests. Maintenance of machinery and equipment related to logistics, maintenance of means of transport and storage devices.

Classes

Technological process of repair of machinery. Disassembly. Repairs. Review, regeneration, machine parts. Regeneration methods of machine parts and their repair. Installation of machine parts. Methods of maintaining and securing the moving machinery.

Basic bibliography:

1. Praca Zbiorowa ? Podstawy racjonalnej eksploatacji maszyn (Collective Work? The basics of the rational exploitation of the machines)? Wyd. Instytut Technologii Eksploatacji. Radom 1998

2. S. Legutko ? Podstawy eksploatacji maszyn i urządzeń (Basic of machinery and equipment exploitation)? WSiP Warszawa 2004

3. S.Legutko ?Eksploatacja maszyn (Machinery exploitation)? Wyd. Politechnika Poznańska. Poznań 2007

4. Dowolne podręczniki z tego zakresu (Any books from this area of study)

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)
1. lecture	15
2. laboratory	15
3. preparation for laboratory	20
4. preparation for an exam	30

Student’s workload

Source of workload	hours	ECTS
Total workload	80	3
Contact hours	30	2
Practical activities	15	1

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