

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Organization of Technical Back-up		Code 1010621251010620496
Field of study Transport	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 5
Elective path/specialty Railway Transport	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 2 Classes: 1 Laboratory: - 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 technical sciences		ECTS distribution (number and %) 3 100%
Responsible for subject / lecturer: Andrzej Jabłoński Master Eng. email: office_ice@put.poznan.pl tel. +48 61 665 2207 Faculty of Working Machines and Transportation Piotrowo 3 street, Poznan		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	The student has some basic knowledge about the origin of the technical service of cars and motor vehicles of railway transport. In addition, knows the ways of service of rail vehicles. The student knows the rules regulating the process of maintenance of rail vehicles, objects and equipment during servicing and planning of the transportation means of the railway transport.
2	Skills	The student can use the acquired knowledge for the planning process of technical maintenance of cars and railway transport. The student can solve specific problems of technical and organizational arising from the operation of means of transport railway transport.
3	Social competencies	Students can work in groups to organize the governance process in its basic features. The student determines the priorities is important in solving the set tasks. Student showing independence in solving technical, organizational, is committed to the improvement of knowledge and skills.
Assumptions and objectives of the course: It is designed to acquaint students with the organization of services, technical service and technical maintenance of rail ways and means of support of railway transport.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. has ordered theoretically knowledge in the field of parameters of technical and consumable materials for vehicles, knows the main units, mechanisms and units. - [K1A_W]		
2. he has knowledge in the field of technical operation, knows: technical and economic aspects of operation of vehicles, the selection of parameters of use, methods of maintaining the equipment in technical readiness. - [K1A_W15]		
Skills:		
1. can get access to information from the literature, Internet, databases. - [K1A_U01]		
2. knows how to communicate using different methods in a professional environment with a formal record of the design. - [K1A_U02]		
3. able to analyze the facilities and technical solutions, can search in catalogues and on sites of manufacturers of ready components of machines and equipment, to assess their suitability for process. - [K1A_U10]		
4. may develop the process of exploitation of transport means and technologies of mounting and Dismounting. - [K1A_U14]		
Social competencies:		

1. understands the need and knows opportunities for continuous professional development in the field, knows the need to acquire new knowledge for professional development. - [K1A_K01]
2. have a sense of responsibility for their work and the willingness to obey the principles of cooperation in a team and be responsible for jointly implemented tasks. - [K1A_K04]
3. in the mind transfer of the received knowledge society, making efforts that this information is understood. - [K1A_K08]

Assessment methods of study outcomes		
Written exam, set-off exercises		
Course description		
The organizational structure of the Sector of Railway Transportation PKP CARGO and sectors taborowych the particular turn, the provisions governing the process of maintenance of rail vehicles, the process of maintenance of rail transport in the Enterprises of Rolling stock on the railway and the Enterprises on repair of the Rolling stock, facilities and equipment in the process, scheduling maintenance of rail transport, logistics, plans essentially, financial and their implementation at the Enterprises of Rolling stock on the railway.		
Basic bibliography:		
1. Krawczyński F., Nieliwodzki J.: Zaplecze techniczne służby trakcji PKP. WKŁ, Warszawa.		
2. Baranowski E., Kosciuk K., Maciszewski Z: Naprawa taboru kolejowego. WKŁ, Warszawa 1977.		
3. Gruszyński J.: Eksploatacja taboru kolejowego. WKŁ, Warszawa 1984.		
Additional bibliography:		
1. Gronowicz J, Kasprzak B.: Lokomotywy spalinowe. WKŁ, Warszawa 1989.		
2. Instrukcje i Przepisy PKP from the sphere of maintenance of rolling stock.		
Result of average student's workload		
Activity	Time (working hours)	
1. Preparation for the performance	5	
2. Participation in lectures	30	
3. Fixing the contents of the lectures	5	
4. Consultations in lectures	3	
5. Exam preparation	10	
6. Participation in the exam	2	
7. Preparing for exercises	5	
8. Part in the exercises	15	
9. Fixing the contents of physical exercises	5	
10. Consultations for physical exercises	3	
11. Preparation of set-off	2	
12. Participation in success	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	87	3
Contact hours	55	2
Practical activities	0	0