

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Passing Project		Code 1010621261010624451
Field of study Transport	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 6
Elective path/specialty Ecology of 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: - Classes: - Laboratory: - Project/seminars: 4		No. of credits 6
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 %) 6 100%
Responsible for subject / lecturer: dr inż. Jarosław Markowski email: Jaroslaw.Markowski@put.poznan.pl tel. 61 665 2705 Faculty of Working Machines and Transportation ul. Piotrowo 3 60-965 Poznań		Responsible for subject / lecturer: dr inż. Miłosław Kozak email: Miloslaw.Kozak@put.poznan.pl tel. 61 665 2004 Faculty of Working Machines and Transportation ul. Piotrowo 3 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of the ecology of transport. Fundamentals of computer-aided design
2	Skills	Can apply the scientific method to solve problems, implement experiments and reasoning
3	Social competencies	Knows the limits of their own knowledge and skills, able to clearly formulate questions, understands the need for further education
Assumptions and objectives of the course: Exercise self-execution of projects mainly in the field of ecology and economics of transport, analysis and evaluation.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. He knows the principle of measurement systems and test equipment - [K1A_W16] 2. He has in-depth knowledge of the ecology of transportation, necessary to solve problems in a selected area of specialization - [K1A_W21] 3. Has knowledge of current developments in terms of transport environment - [K1A-W24]		
Skills:		
1. He can decide on how to improve the knowledge and skills in the chosen specialty - [K1A_U01] 2. Able to communicate effectively both with specialists and niespecjalistami on issues relevant to the area being studied - [K1A_U02] 3. Can apply the scientific method to solve problems, implement research and reasoning - [K1A_U17]		
Social competencies:		
1. Is aware of and understands the importance and impact of non-technical aspects of engineering, including its impact on the environment and the associated responsibility for decisions - [K1A_K02] 2. Able to set priorities for implementation specified by you or other tasks - [K1A_K05] 3. He can think and act in a creative and enterprising - [K1A_K07]		
Assessment methods of study outcomes		

Final test		
Course description		
Technical design element or component airframe, developed on the basis of the output provided by the teacher. The project includes: functional and strength calculations, the description of designed construction, operation manual and part of the drawing.		
Basic bibliography:		
1. Dobre obyczaje w nauce. Zbiór zasad i wytycznych (wyd. 3), Wyd. PAN Warszawa 2001		
2. Szubert-Zarzeczny U., Technika pisania prac o charakterze naukowym, Wyd. Wyższa Szkoła Zarządzania "EDUKACJA" Wrocław, 2001.		
Additional bibliography:		
Result of average student's workload		
Activity	Time (working hours)	
1. There are prepared interim work	122	
2. Consultation	17	
Student's workload		
Source of workload	hours	ECTS
Total workload	139	6
Contact hours	17	1
Practical activities	122	5