

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Engineering of Food Transportation Means Renovation</b>		Code <b>1010612221010610653</b>
Field of study <b>Transport</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>1 / 2</b>
Elective path/specialty <b>Food Industry Machines and Refrigeration</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>Second-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: <b>1</b> Classes: <b>-</b> Laboratory: <b>-</b> Project/seminars: <b>1</b>		No. of credits <b>4</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art		ECTS distribution (number and %)
<b>Responsible for subject / lecturer:</b> prof. dr hab. inż. Stanisław Nosal email: stanislaw.nosal@put.poznan.pl tel. 6652232 MRiT ul. Piotrowo 3, 60-965 Poznań		<b>Responsible for subject / lecturer:</b> dr inż. Aleksandra Rewolińska email: aleksandra.rewolinska@put.poznan.pl tel. 6652110 MRiT ul. Piotrowo 3, 60-965 Poznań
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	He has a basic knowledge of technology, equipment and technology for the repair.
2	<b>Skills</b>	He can measure the geometry of the selected machine elements.
3	<b>Social competencies</b>	He can think and act creatively.
<b>Assumptions and objectives of the course:</b> Get to know the methods to restore airworthiness vehicles.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
1. He has a structured theoretical knowledge in body repair. - [K2A_W14]		
<b>Skills:</b>		
1. He can develop a body repair manual. - [K2A_U15]		
<b>Social competencies:</b>		
1. He understands the need and knows the possibility of lifelong learning. - [K2A_K01]		
<b>Assessment methods of study outcomes</b>		
Written test. Evaluation of the project.		
<b>Course description</b>		
Measurements of body and frame. Collision repair sheet metal body. Body repair refrigeration. Repair of selected systems engine and the clutch and gearbox.		

<b>Basic bibliography:</b>		
1. Budowa i eksploatacja pojazdów, t.2, Obsługa, diagnostyka i naprawa zespołów i podzespołów. Praca zbiorowa, red. M. Kozłowski, Wrocław, Wyd. Vogel Business Media 2003.		
2. Raatz B., Nowoczesne technologie pomiarów i napraw karoserii powypadkowych, Oficyna Wydawnicza TROTON 2005.		
3. Sobierajska G., Neumann Z., Lakiernictwo samochodowe, Szczecin, Wyd. SIMP-ZORPOT 2002.		
4. Adamiec P., Dziubiński J., Filipczyk J., Technologia napraw pojazdów samochodowych, Wyd. Politechniki Śląskiej, Gliwice 2002.		
5. Zawadzki J., Lakierowanie samochodów, W-wa, WNT 1988.		
6. Naprawy powypadkowe nadwozi a bezpieczeństwo, Praca zbiorowa, red. A. Tobot, Oficyna Wyd. Politechniki Wrocławskiej, Wrocław 1998.		
<b>Additional bibliography:</b>		
<b>Result of average student's workload</b>		
<b>Activity</b>	<b>Time (working hours)</b>	
1. Participation in lecture	15	
2. Consolidation on lecture	6	
3. Consultations	8	
4. Preparedness to exam	20	
5. Preparedness to project	8	
6. Participation in project	15	
7. Preparedness project	8	
8. Participation in exam	8	
<b>Student's workload</b>		
<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	88	4
Contact hours	46	2
Practical activities	49	2