

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Organization of Production and Logistics in Automotive Industry		Code 1011102411011114057
Field of study Logistics - Full-time studies - Second-cycle	Profile of study (general academic, practical) general academic	Year /Semester 1 / 1
Elective path/specialty Corporate Logistics	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: - Laboratory: - Project/seminars: 30		No. of credits 5
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 5 100% 5 100%
Responsible for subject / lecturer: dr hab. Inż. Marek Fertsch, prof.nadzw. email: Marek.Fertsch@put.poznan.pl tel. 061 665 3416 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań		Responsible for subject / lecturer: dr inż. Paulina Golińska Dawson email: Paulina.Golinska@put.poznan.pl tel. 61 665 34 14 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of the organization of production and logistics fundamentals
2	Skills	student has the ability to perceive, to associate and interpret phenomena in organizations can take advantage of the fundamental information technologies for the management
3	Social competencies	student is aware of the consequences of their decisions and is prepared to take on social responsibility for decisions
Assumptions and objectives of the course: To familiarize students with the principles of the organization of production and logistics in the automotive industry. Familiarize students with the fundamental techniques used in this area		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Knows the basic relations between the sphere of technical and economic characteristic of the object in the field of logistics - [K2A_W04]		
2. has thorough knowledge of manufacturing engineering and its relations with logistics in automotive industry - [K2A_W05]		
3. is familiar with the basic concepts and methods of material flow management in automotive industry - [K2A_W08]		
4. knows the basic concepts characteristic to the subject being studied in the production and logistics in automotive industry - [K2A_W09]		
5. can explain in detail the methods, tools and techniques characteristic for production and logistics in automotive industry - [K2A_W13]		
Skills:		
1. Can design a process of analysis of the phenomenon falling within the production and logistics in automotive industry - [K2A_U09]		
2. Can formulate and solve problems through multi-disciplinary integration of knowledge in the fields and disciplines used in the design of production and logistic systems in automotive industry - [K2A_U10]		
3. Is able to formulate and test hypotheses regarding the issues related to the design of logistics systems in automotive industry - [K2A_U11]		
4. is able to assess the usefulness and the usability of new developments (techniques and technologies) in logistics and related functional areas in uautomotive industry - [K2A_U12]		

Social competencies:
1. Has sense of responsibility for his/her own work and the willingness to comply with the rules work in a team and to take responsibility for collaborative tasks - [K2A_K03]
2. can see the cause-and-effect relations in achieving the goals set and range importance of alternative or competing tasks - [K2A_K04]

Assessment methods of study outcomes
Forming assesment a) the project-based discussion on solutions that wants to include in the project b) a lecture on the basis of answers to questions concerning the material discussed in the previous lecture Summary assesment - Project a) based on a public presentation of the project results and discussion about them, b) on the basis of the substantive quality of their project - Lecture: written test

Course description
The lecture begins with a short presentation of the car as an industrial product (complexity, applied technology, basic units), and the process of its design. Will be presented typical assembly systems, assembly line organization and the organization of a plant producing cars. The deals with the process of planning and control at the plant producing cars. You will then be presented to the planning material requirements for the production of cars. It will explore various options of procurement, including: suppliers parks, just-in-time and just-in-sequence deliveries. The scope covers also organization of the end-of-life vehicles management. At exercises class students become familiar with the specific problems of the organization of automobile assembly line, production planning and control and the organization of supplies in different variants. Teaching methods: conventional specialist lecture, team project, work with literature

Basic bibliography:
1. Golinska P., Fertsch M. Organizacja produkcji i logistyki w przemyśle samochodowym, wyd. PP 2012
2. Rohatyński R., Remanufacturing-istota-znaczenie- realizacja [w:] Fertsch M.(red.), Elementy inżynierii Logistycznej, Wydawnictwo Instytutu Logistyki i Magazynowania, Poznań 2017
3. Fertsch M., Metoda planowania zapotrzebowania materiałowego w planowaniu produkcji i sterowaniu jej przebiegiem, Wydawnictwo Politechniki Poznańskiej, Poznan, 2013
4. Cyplik P., Fertsch M., Hadaś Ł., Zarządzanie dystrybucją. Metody i mierniki oceny. Wydawnictwo Politechniki Poznańskiej, Poznań 2011

Additional bibliography:
1. Golinska P. Enviromental Issues in automotive industry, Springer, Berlin heidelberg 2014
2. Hall R.W., Zero Inventories, Dow Jones Irving, Homewood, Illinois, 1983
3. Monden Y., Toyota Production System, Industrial Engineering and Management Press, Norcross, USA, 1983

Result of average student's workload

Activity	Time (working hours)
1. Project of the manufacturing system and logistics system in the automotive industry	30
2. Lecture	15
3. Preparation of project	25
4. Consultation	13
5. Preparation for test	15
6. Test	2

Student's workload		
Source of workload	hours	ECTS
Total workload	125	5
Contact hours	60	3
Practical activities	70	2