STUDY MODULE DESCRIPTION FORM			
Name of the module/subject Tool management		Code 1011104471011115718	
Field of study	Profile of study	Year /Semester	
Logistics - Part-time studies - First-cy	cle (brak)	4/7	
Elective path/specialty	Subject offered in:	Course (compulsory, elective)	
-	Polish	elective	
Cycle of study:	Form of study (full-time,part-tin	ne)	
First-cycle studies	ра	part-time	
No. of hours		No. of credits	
Lecture: 14 Classes: - Laborato	ory: • Project/seminars:	12 3	
Status of the course in the study program (Basic, major, oth	ner) (university-wide, from anoth	ner field)	
(ргак)			
Education areas and fields of science and art		and %)	
Responsible for subject / lecturer: dr hab. Inż. Marek Fertsch, prof.nadzw email: marek.fertsch@ put.poznan.pl tel. 616659476 Wydział Inżynierii Zarządzania ul Strzalogica 11. 60.065 Boznań			
Prerequisites in terms of knowledge.	skills and social competencie	es:	
1 Knowledge	Students knows basic terms within the logistics area		
2 Skills Student has capability	Student has capability of noticing, associating, interpreting phenomenas within logistics area		
3 Social Student is aware of in competencies	Student is aware of influence of of logistics on competitive edge of companies		
Assumptions and objectives of the cou	urse:		
Providing students with knowledge, skills and social competences connected with tools management in machining industry			
Study autoempo and reference to the advectional results for a field of study			
Study outcomes and reference to the educational results for a field of study			
<ul> <li>1. has a basic knowledge on: engineering graphics, construction, technology and exploitation pf materials (T1A_W02)</li> </ul>			
2. has a basic knowledge on: mechanics and machines construction and durability of materials - [K1A W07]			
3. can explain basic concepts for logistics and its sp manufacturing and sourcing, logistics operation, eco	ecific issues (inventory management, I plogistics) and supply chain manageme	logistics, distribution, logistics, ent - [K1A_W15]	
4. is able to recognize the basic phenomena character logistics, distribution, logistics, manufacturing and se [K1A_W16]	teristic for logistics and its specific issu ourcing, logistics operation, ecologistic	es (inventory management, s) and supply chain management -	
5. can explain in detail the specific concepts for logistics and its specific issues and supply chain management - [K1A_W17]			
6. can define basic interdependencies in logistics ar logistics, manufacturing and sourcing, logistics oper	nd its specific issues (inventory manage ation, ecologistics) and supply chain m	ement, logistics, distribution, nanagement - [K1A_W18]	
7. can identify contemporary trends in logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A_W19]			
8. can characterize best practices in logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A_W20]			
9. knows basic methods, techniques, tools and materials applied when solving simple engineering tasks connected with designing systems and logistics processes - [K1A_W23]			
Skills:			

1. can independently develop the for the problem within the field of studies - [K1A\_U05]

2. can formulate project task using analytical methods, simulation or experiments falling within the field of studies and solve the task in the field of logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A\_U09]

3. can make a critical analysis of the problem within the logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A\_U13]

4. can design using appropriate methods and techniques a building, system or process that meets the requirements within the framework of logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A\_U16]

## Social competencies:

1. The student is willing to cooperate and work in a project group - [K1A\_K03]

2. The student is aware of the responsibility for their own work and willingness to comply with the principles of teamwork and accountability in the project group - [K1A\_K04]

3. The student is aware of the potential conflict between the procurement and production departments - [K1A\_K05]

# Assessment methods of study outcomes

#### Forming Rating:

a) In terms of the project: on the basis of progress in the implementation phases of the project, and knowledge of the issues necessary for its implementation b) for laboratory: on the basis of discussions on the knowledge of the issues necessary for the proper performance of the laboratory exercises c) in terms of the lecture: on the basis of responses to questions about issues discussed in the previous lectures

## Summary Rating:

a) In terms of the project: on the basis of (1) the quality of the merits of the project (2) The presentation of the project b) In terms of laboratories: based on reports prepared. c) in respect of the lecture: on the basis of test - written work on the issues discussed in the lecture. The student is allowed to take an take the exam after the assessments of the project and the laboratory. The exam is passed, after giving the correct answer to most of the substantive issues discussed

## Course description

Lectures: Planning tool wear: statistical methods, the method of statistical factors, analytical method. Tool Management Organization. Production program tooling. Tooling equipment. Tooling staff. The organization of production tools. Actions of production tools providers. The single and multibrand systems. Services of tools suppliers. Stocks of tools.

Exercises: Planning tool wear: statistical methods, the method of statistical factors, analytical method. Tool Management Organization. Production program tooling. Tooling equipment. Tooling staff. The organization of production tools. Actions of production tools providers. The single and multibrand systems. Services of tools suppliers. Stocks of tools.

## Basic bibliography:

1. Liwowski B., Kozłowski R., Podstawowe zagadnienia zarządzania produkcją, Oficyna Wolters Kluwer business, Kraków 2007

2. Banaszak Z., Kłosa S., Mleczko J., Zintegrowane systemy zarządzania , Polskie Wydawnictwo Ekonomiczne, Warszawa 2011

# Additional bibliography:

# Result of average student's workload

Activity	Time (working hours)			
1. lectures		14		
2. project		12		
Student's workload				
Source of workload	hours	ECTS		
Total workload	26	3		
Contact hours	14	1		
Practical activities	12	2		