STUDY MODULE DESCRIPTION FORM								
	f the module/subject gning industrial	plants	Code 1011104471011110558					
Field of		studies - First-cycle		Profile of study (general academic, practical) (brak) Year /Semester 4 / 7				
Elective path/specialty			Subject offere	ed in: Polish	Course (compulsory, elective)			
Cycle of	study:		Form of study (full-time,part-time)					
	First-cyc	ele studies	part-time					
No. of h				_	No. of credits			
Lecture: 14 Classes: - Laboratory: - Project/seminars: 12					2 4			
Status of the course in the study program (Basic, major, other) (university-wide, fr (brak)					<sup>d)</sup> brak)			
Education areas and fields of science and art				<b>X</b>	ECTS distribution (number and %)			
techn	ical sciences				4 100%			
Responsible for subject / lecturer: Responsible for subject					/ lecturer:			
dr in	iż. Ireneusz Gania		dr inż. Ireneu	ısz Gania				
	ill: ireneusz.gania@pu	ıt.poznan.pl	email: ireneusz.gania@put.poznan.pl					
	616653385 ulty of Engineering Ma	anagement	tel. 616653385 Faculty of Engineering Management					
	Strzelecka 11 60-965 F	-		a 11 60-965 Poz	0			
Prere	quisites in term	s of knowledge, skills an	d social com	petencies:				
1	Knowledge	The student has a basic knowled	knowledge of managing production and services					
2	Skills	The student understands and can apply the tools and techniques for the design of the production units of the first level of complexity						
3	Social competencies	The student understands and is prepared to design the organization of production systems, especially in terms of production structures						
Assu	mptions and obj	ectives of the course:						
-Understanding the theoretical and practical issues related to the design of production systems and the basic methods and techniques used in the process								
	Study outco	mes and reference to the	educational	results for a	field of study			
Know	/ledge:							
	nas a basic knowledge W04,K1A_W07]]	of the management of production	and its use in th	e design of proc	luction systems -			
<ul> <li>2. He has extensive knowledge of the structures and processes of production changes in this area and change management - [[K1A_W08,K1A_W10]]</li> </ul>								
	0	nods and tools of production struct						
		ends indicate in designing the org	anization of produ	uction systems -	· [-]			
	to formulate the task	design (engineering) in the field o n  - [[K1A_U04,K1A_U12]]	f industrial organi	zation, and cho	ose the appropriate tools and			
			irea manufacturir	na system desia	n - [[K1A U13.K1A U14]]			
<ol> <li>Able to assess the economic terms of the specific problem area manufacturing system design - [[K1A_U13,K1A_U14]]</li> <li>Can design the structure of production, including the organization of production units higher degrees of sophistication, departments, establishments and auxiliary processes - [[K1A_U15]]</li> </ol>								
4. Able to prepare and present in Polish or foreign to discuss the problem of the design of production systems - [[K1A_U16]]								
Social competencies:								
-								

1. He is responsible for proper identification and settlement of dilemmas associated with the practice in the design of production systems - [[K1A\_K02,K1A\_K03]]

2. Understands the need and knows the possibilities of continuous training - [[K1A\_K04,K1A\_K05]]

3. Able to pass on the knowledge to the members of the project team is aware of the responsibility for their own work and willingness to comply with the principles of teamwork - [[K1A\_K06, KInz\_W05]]

## Assessment methods of study outcomes

-Written exam, project, presentation of papers

### Course description

-Basis of design production systems. The company as a system. The term project situation (upgrading or developing new systems). Product realization process. Algorithm design and technical assumptions - economic production preparation products. The problem of design: the structure of production systems, production start, the spatial organization of manufacturing processes. Project documentation. The master plan, the location of the company. Project evaluation system. New directions and trends in the design of production systems.

### Basic bibliography:

1. Gubała M., Popielas J., Podstawy zarządzania magazynem w przykładach, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 2002.

2. Korzeniowski A. (red.), Zarządzanie gospodarką magazynową, PWE, Warszawa, 1997.

3. Korzeń Z., Logistyczne systemy transportu bliskiego i magazynowania, t.1 i 2, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 1998

4. Organizacja i sterowanie produkcją, Brzeziński M, AW Placet, Warszawa, 2002

5. Organizacja i ekonomika procesów produkcyjnych w przemyśle maszynowym, Lis S., PWN, Warszawa, 1984

6. Podstawowe zagadnienia zarządzania produkcją, Liwowski B., Kozłowski R., Oficyna Ekonomiczna, Kraków, 2006

7. Projektowanie struktur systemów produkcyjnych, Mazurczak J., WPP, Poznań, 2001

8. Zarządzanie. Produkcja i usługi, Muhlemann A., Oakland J., Lockyer K, PWN , Warszawa, 2001

9. Podstawy projektowania struktur przedsiębiorstw przemysłowych, Jackowicz R., Lis S, WPW, Warszawa, 1987

### Additional bibliography:

1. Zarządzanie produkcją. Produkt, technologia, organizacja, Pająk E., PWN, Warszawa, 2006

2. Inżynieria zarządzania, Durlik I., AMP WN, Katowice, 1993

# Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	15
2. Independent work of the student	15
3. Literature studies	30
4. Consultation	30
5. Exam Preparation	10

#### Student's workload

Source of workload	hours	ECTS
Total workload	100	4
Contact hours	45	3
Practical activities	55	1