STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Designing industrial plants		**1011101471011110558**

Field of study	Profile of study (general academic, practical)	Year /Semester
Logistics - Full-time studies - First-cycle studies	**(brak)**	**4 / 7**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**elective**

Cycle of study:	Form of study (full-time,part-time)
First-cycle studies	**full-time**

No. of hours					No. of credits
Lecture: **15**	Classes: **-**	Laboratory: **-**	Project/seminars: **15**		**4**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**100 4%**

Responsible for subject / lecturer:

dr inż. Ireneusz Gania
email: ireneusz.gania@put.poznan.pl
tel. 616653385
Faculty of Engineering Management
ul. Strzelecka 11 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student has a basic 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

Assumptions and objectives 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 outcomes and reference to the educational results for a field of study

Knowledge:

1. He has a basic knowledge of the management of production and its use in the design of production systems - [[K1A_W04,K1A_W07]]
2. He has extensive knowledge of the structures and processes of production changes in this area and change management - [[K1A_W08,K1A_W10]]
3. He knows the design methods and tools of production structures - [[K1A_W13,K1A_W14]]
4. He can describe current trends indicate in designing the organization of production systems - [-]

Skills:

1. Able to formulate the task design (engineering) in the field of industrial organization, and choose the appropriate tools and methods to solve the problem - [[K1A_U04,K1A_U12]]
2. Able to assess the economic terms of the specific problem area manufacturing system design - [[K1A_U13,K1A_U14]]
3. Can design the structure of production, including the organization of production units higher degrees of sophistication, departments, establishments and auxiliary processes - [[K1A_U15]]
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. Organizacja i sterowanie produkcją, Brzeziński M, AW Placet, Warszawa, 2002
2. Organizacja i ekonomika procesów produkcyjnych w przemyśle maszynowym, Lis S., PWN, Warszawa, 1984
3. Podstawowe zagadnienia zarządzania produkcją, Liwowski B., Kozłowski R., Oficyna Ekonomiczna, Kraków, 2006
4. Projektowanie struktur systemów produkcyjnych, Mazurczak J., WPP, Poznań, 2001
5. Zarządzanie. Produkcja i usługi, Muhlemann A., Oakland J., Lockyer K, PWN , Warszawa, 2001
6. 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. Participation in project activities	15
3. Literature studies	30
4. Preparation of the project	30
5. Exam Preparation	10

Student's workload

Source of workload	hours	ECTS
Total workload	100	4
Contact hours	65	3
Practical activities	15	1