Faculty of Engineering Management

STUDY MODULE DESCRIPTION FORM					
		Code 011101351011111178			
Field of study	Profile of study (general academic, practical)				
Engineering Management - Full-time studies -	(brak)	3/5			
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory			
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: 15	Project/seminars:	15 4			
Status of the course in the study program (Basic, major, other)	(university-wide, from another f	ield)			
(brak) (brak)					
Education areas and fields of science and art		ECTS distribution (number and %)			
Responsible for subject / lecturer: Responsible for subject		ct / lecturer:			
dr inż. Agnieszka Grzelczak email: agnieszka.grzelczak@put.poznan.pl tel. 61 665 33 69 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań	dr inż. Agnieszka Grzelczak email: agnieszka.grzelczak@put.poznan.pl tel. 61 665 33 69 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań				
Prerequisites in terms of knowledge, skills and social competencies:					

1	Knowledge	student has basic knowledge on technology and production organization and organization of workstations
2	Skills	student understand and can apply paramentres of manufacturing systems and processes for manufacturing structures design
3	Social competencies	students unerstands the idea and is prepared to managing manufacturing area, especially concerning manufacturing systems structures

Assumptions and objectives of the course:

-presentation of methodology and technique of manufacturing structuires design, and introduction of other subjects related to production management

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

Knowledge:

- 1. 1. has knowledge on processes of changes in organizational structures and on managing these changes, as well as on principles ruling structures of organizations [K1A_W04, K04-InzA_W02, K05-InzA_W03] - [K1A_W04, K04-InzA_W02, K05-InzA_W03] - [K1A_W04, K04-InzA_W04, K04-InzA_W05]
- 2. has basic knowledge on manufacturing management and on applicatopn of the knowledge to design of manufacturing systems [K1A_W09, K03-InzA_W01, K06-InzA_W04] - [K1A_W09, K03-InzA_W01, K06-InzA_W04]]
- 3. has deepened knowledge on production structures [K1A_W16, K07-InzA_W5] [[K1A_W16, K07-InzA_W5]]
- 4. knows methods and tools for manufacturing structures design- [K1A_W17] [[K1A_W17]]

Skills:

- 1. is able to make critical analysis of technological and industrial processes as well as of manufacturing systems [K1A_U02, K1A_U06, K01-InzA_U5] - [K1A_U02, K1A_U06, K01-InzA_U5]]
- 2. is able to develop solutions for given problems in production manufacturing and give exact directions [K1A_U07, K01-InzA_U7] - [K1A_U07, K01-InzA_U7]
- 3. Can design manufacturing structure including organization of primary manufacturing units [K1A_U09, K01-InzA_U8] -[K1A_U09, K01-InzA_U8]]
- 4. Can apply knnowledge to solving dilemmas in professional work [K1A_U10, K01-InzA_U7] [K1A_U10, K01-InzA_U7]

Social competencies:

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- 1. Is ready for aware and responsible shaping of manufacturing systems and understands their influence on human beings and natural environment [K1A_K01,K1A_K02, K01-InzA_K1] [K1A_K01,K1A_K02, K01-InzA_K1]]
- 2. Can share knnowledge with other team memebers is aware of responsibility for own work and ready to obey the principles of team work [K1A_K06] [K1A_K06]
- 3. Understands the idea and knows opportunities of life-long learning [K1A_K07] [K1A_K07]

Assessment methods of study outcomes

-written exam, test, project development, case study solving

Course description

-Enterprise as a manufacturing system. Production structure, its shaping. Specilization issues. Production stabilization. Types and forms of production organization. Optimization criteria. Algorithm for design and reconstruction of manufacturing units. IT support for manufacturing units design. Workstations allocation. New trends and challenges in manufacturing design.

Basic bibliography:

- 1. Organizacja i sterowanie produkcją, Brzeziński M, AW Placet, Warszawa, 2002
- 2. Inżynieria zarządzania, Durlik I., AMP WN, Katowice, 1993
- 3. Projektowanie struktur systemów produkcyjnych, Mazurczak J., WPP, Poznań, 2001
- 4. Zarządzanie. Produkcja i usługi, Muhlemann A., Oakland J., Lockyer K, PWN, Warszawa, 2001
- 5. Sterowanie przepływem produkcji, Senger Z, WPP, Poznań, 1998

Additional bibliography:

- 1. Zarządzanie produkcją, Głowacka D., Fertsch M., WSL, Poznań, 2004
- 2. Podstawowe zagadnienia zarządzania produkcją, Liwowski B., Kozłowski R., Oficyna Ekonomiczna, Kraków, 2006
- 3. Zarządzanie produkcją. Produkt, technologia, organizacja, Pająk E., PWN, Warszawa, 2006

Result of average student's workload

Activity	Time (working hours)
1. Lecture	15
2. Seminars	15
3. Project	15
4. Literature studies	25
5. Consultations	10
6. Individual work on tasks solving	15
7. exam	5

Student's workload

Source of workload	hours	ECTS
Total workload	100	4
Contact hours	45	2
Practical activities	30	1