Name of the module/subject Code Engineering Enterpreneurship Code Field of study Profile of study Civil Engineering (brak)			
Engineering Enterpreneurship 101011211 Field of study Profile of study (general academic, practical) (brak) Year /Sen			
Field of study Profile of study Year /Sen Civil Engineering (brak)	1010115657		
Civil Engineering (general academic, practical) (brak) (brak)	nester		
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Elective hath/sheciality	<u> </u>		
- Polish ol	ompulsory, elective) bligatory		
Cycle of study: Form of study (full-time,part-time)			
Second-cycle studies full-time	full-time		
No. of hours No. of crea	dits		
Lecture: 60 Classes: 15 Laboratory: - Project/seminars: 15	5		
Status of the course in the study program (Basic, major, other) (university-wide, from another field)			
(brak) (brak)	(brak)		
Education areas and fields of science and art ECTS dist and %)	ribution (number		
technical sciences 100 5	%		
Technical sciences	100 5%		
Responsible for subject / lecturer: Responsible for subject / lecturer:			
dr hab. inż. Jerzy Pasławski, prof. nadzw. mgr inż. Piotr Nowotarski			
email: jerzy.paslawski@put.poznan.pl email: piotr.nowotarski@put.poznan.pl	.pl email: piotr.nowotarski@put.poznan.pl		
tel. +48616652113 tel. 616652113 Eaculty of Civil and Environmental Engineering Eaculty of Civil and Environmental Engin	eering		
ul. Piotrowo 5 60-965 Poznań ul. Piotrowo 5 60-965 Poznań	ul. Piotrowo 5 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:			
Knowledge Basic knowledge of production management in construction industry			
2 Skills The ability to establish advantages and disadvantages of operate their own b construction industry	es and disadvantages of operate their own business in the		
3 Social Teamwork			
Assumptions and objectives of the course:			
- management of SMEs in the construction industry with an emphasis on operational management			
- fundamnetal knowledge in the field of quality management			
- knowledge of the basic principles of the market			
	study		
Knowledge.			
1. Student knows the basic levels of management in SMEs in the construction sector - [K_W10]			
2. Student knows the methods of operational management in SMEs in the construction sector - [K_W10]			
S. Student knows the rules of management, methods and tools of quality - [K_W11]			
Skille:			
Skills:	I. Student can apply appropriate methods or operational management - [K_U10] Student expedie to apply additive driptic principles, methods and tools of quality measurement. [K_U10]		
Skills: 1. Student can apply appropriate methods of operational management - [K_U10] 2. Student canable to apply addivident principles, methods and tools of quality management			
Skills: 1. Student can apply appropriate methods of operational management - [K_U10] 2. Student capable to apply odpiwiednie principles, methods and tools of quality management - [K_U12] 3. Student can provide appropriate measures and safety on site - [K_U12]			
Skills: 1. Student can apply appropriate methods of operational management - [K_U10] 2. Student capable to apply odpiwiednie principles, methods and tools of quality management - [K_U12] 3. Student can provide appropriate measures and safety on site - [K_U12] Social competencies:			
Skills: 1. Student can apply appropriate methods of operational management - [K_U10] 2. Student capable to apply odpiwiednie principles, methods and tools of quality management - [K_U12] 3. Student can provide appropriate measures and safety on site - [K_U12] Social competencies: 1. Student can manage themselves and others - [K_K01]			
Skills: 1. Student can apply appropriate methods of operational management - [K_U10] 2. Student capable to apply odpiwiednie principles, methods and tools of quality management - [K_U12] 3. Student can provide appropriate measures and safety on site - [K_U12] Social competencies: 1. Student can manage themselves and others - [K_K01] 2. Student is capable to operate in the organization and environment respecting the principles of profession [K_K11]	al ethics -		

Assessment methods of study outcomes

Student's work includes:

- Participation in meetings with managers working in construction companies
- Participation seminars
- Presentation of a selected topic in the field of operational management
- Test (at the end of the semester 14 week)

Grading Scale (seminar and colloquium):

more than 100 targeted

91-100 very good (A)

- 81 90 good plus (B)
- 71 80 Good (C)
- 61 70 is sufficient plus (D)
- 51 60 satisfactory (E)
- Under-50 and under (F)

Course description

-The role of the operational management of the company, the basic levels of decision-making in operational management, operational management of the key elements in the construction industry: quality management, supply chain management, to ensure health and safety, risk management, inventory management method, the method of just-in-time, lean management, process planning production waste management on site, the principles of creating quality books in the enterprise, fundamental principles of the free market - simulation

Basic bibliography:

1. March Ch. Operations management for construction, Spon Press, London-New York 2009

2. Journal of Construction Engineering and Management

Additional bibliography:

1. Schroeder R.G. Operations Management. Decision making in the operations function, McGraw-Hill Book Company 1981 2. .

Result of average student's workload		
Activity		Time (working hours)
1. Participation in seminars / exercises		15
2. Preparing a presentation at a seminar		20
3. Preparation for the test		15
Student's wo	rkload	
Source of workload	hours	ECTS
Total workload	125	5
Contact hours	25	2
Practical activities	25	2