# Poznan University of Technology Faculty of Engineering Management

STUDY MODULE DESCRIPTION FORM							
Name of the module/subject Internship				Code 1011101361011160749			
Field of				Profile of study	-	Year /Semester	
Engi	neering Manage	ment - Full-time studies -		(general academic, practical) general academic	)	3/6	
_	path/specialty			Subject offered in:		Course (compulsory, elective)	
		-	1	Polish		obligatory	
Cycle of	f study:		For	m of study (full-time,part-time)			
First-cycle studies			full-time				
No. of h	ours					No. of credits	
Lectur	e: - Classes	s: - Laboratory: -		Project/seminars:	1	2	
Status o	•	program (Basic, major, other)	(	(university-wide, from another f	,		
		other		unive	ersi	ty-wide	
Education	on areas and fields of sci	ence and art				ECTS distribution (number and %)	
study	effects leading	to the acquisition of engi	nee	ering qualifications		1 50%	
socia	I sciences					1 50%	
	<b>Economics</b>					1 50%	
Resp	onsible for subje	ect / lecturer:	Re	sponsible for subject	ct /	lecturer:	
dr inż. Anna Mazur				dr inz Hanna Gołaś			
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tel. 61 665 33 65 Inżynierii Zarządzania			tel. 61 665 33 65 Inżynierii Zarządzania				
ul. Strzelecka 11 60-965 Poznań			ul. Strzelecka 11 60-965 Poznań				
Prere	quisites in term	s of knowledge, skills an	d s	ocial competencies:			
1	Knowledge	Knowledge of the complexity an systems as well as engineering	d mi knov	ulti-dimensionality of the orw wledge with regard to the e	gani: ngin	zation management eering management	
2	Skills	Ability to perceive, t associate and interpret phenomena occurring in organizations and their use in the organization management with particular emphasis on the area of engineering					
3	Social competencies	The student understands and is prepared to take on social responsibility for the decisions taken in connection with the management of the organization					
Assumptions and objectives of the course:							
The aim of the course is to observe, analyze and assess the outcomes of management processes in organizations, as well as the acquisition of practical skills and the easiness of discerning elementary use of management and engineering processes.							
Study outcomes and reference to the educational results for a field of study							
Know	Knowledge:						

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- 1. Has a basic knowledge of the life cycle of machines [K1A\_W21] [-]
- 2. Has a basic knowledge of the life cycle of industrial products [K1A\_W22] [-]
- 3. Has a basic knowledge of the life cycle of socio-technical systems [K1A\_W23] [-]
- 4. Knows the basic methods, techniques, tools and materials used in solving simple engineering problems in the construction and operation of machinery [K1A\_W24] [-]
- 5. Has the knowledge necessary to understand the determinants of non-technical engineering activities [K1A\_W25] [-]
- 6. Has a basic knowledge of management, including the management of quality as well as in terms of running a business [K1A\_W26] [-]
- 7. Knows the typical industrial technologies used in the construction and operation of machinery [K1A\_W027] [-]
- 8. Knows the typical organizational structures of enterprises [K1A\_W04] [-]
- 9. Has knowledge of typical network of economic structures and the relationship between these networks at the national and international scale [K1A\_W05] [-]
- 10. Knows the types of organizational and social relationships [K1A\_W06] [-]
- 11. Has a basic knowledge of occupational ergonomics [K1A\_W07] [-]
- 12. Has knowledge of the tools necessary for the collection, processing and distribution of information obtained [K1A\_W11] [-]
- 13. Knows the modelling tools of market processes [K1A\_W12] [-]
- 14. Has knowledge of the ethical and organizational norms [K1A\_W15, K1A\_W16] [-]
- 15. Knows the general rules for the establishment and growth of private entrepreneurship including technical and economic knowledge [K1A\_W20] [-]

### Skills:

- 1. Can correctly interpret social phenomena in the discipline of management science [K1A\_U01] [-]
- 2. Can analyze the data source [K1A\_U02] [-]
- 3. Is able to use their acquired skills in practice [K1A\_U02] [-]
- 4. Can correctly analyze the causes and course of the processes and phenomena in the science of management [K1A\_U03] [-]
- 5. Can use normative systems to solve specific organizational problems [K1A\_U05] [-]
- 6. Can resolve the dilemmas and problems that occur in their work by offering the right solution [K1A\_U06, K1A\_U07] [-]
- 7. Has the ability to identify and analyze social phenomena [K1A\_U08] [-]
- 8. Has the ability to comply with the rules of linguistic correctness in editing documents and reports [K1A\_U09] [-]
- 9. Is able to plan and carry out experiments and simulations as well as draw conclusions accurately [K1A\_U12] [-]
- 10. Can use analytical, simulation and experimental methods in solving technical problems [K1A\_U13] [-]
- 11. Can see the systemic, socio-technical, organizational and non-technical aspects in problem solving tasks and in dealing with engineering problems [K1A\_U14] [-]
- 12. Can make a preliminary technical and economic analysis of the undertaken engineering activities [K1A\_U15] [-]
- 13. Is able to analyze the technological processes in the organization of production systems [K1A\_U16] [-]
- 14. Identifies and solves simple design tasks in engineering activities [K1A\_U17] [-]
- 15. Can apply common methods to solve simple engineering problems [K1A\_U18] [-]
- 16. Can design a simple construction and technology of the simple machine parts as well as design the organization of the first production units of complexity [K1A\_U19] [-]

### Social competencies:

- 1. Understands the need for continuous improvement of the knowledge [K1A\_K01] [-]
- 2. Is aware of the need to solve some tasks with teamwork [K1A\_K02] [-]
- 3. Recognizes cause-and-effect relationships in achieving its objectives [K1A\_K03] [-]
- 4. Is aware of the importance of behaving in a professional manner with respect to the rules of business ethics [K1A\_K04] [-]
- 5. Is prepared to carry out business ventures [K1A\_K07] [-]
- 6. Substantially contributes to the preparation of projects using legal, economic and organizational knowledge [K1A\_K05] [-]
- 7. Is aware of and understands the consequences of non-technical aspects and consequences of engineering activities [K1A\_K08] [-]
- 8. Is aware of using a systemic approach in creating products [K1A\_K09] [-]

## Assessment methods of study outcomes

- -Preparing reports on an internship
- -Presentation of the internship report

## Course description

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- 1. Presentation of the economic subject:
- ? legal form of organization
- ? range of production
- ? the technology used
- ? forms of production organization( slots, lines).
- 2 The organizational structure of the company.
- 3 Analysis of the processes carried out in the framework of the enterprise: the functions performed by organizational business, setting goals and objectives, accountability of performance with regard to objectives and performed tasks, analysis of applied solutions, marketing activities (types of activities to promote the company image, branding), measures for the design of products, services, planning and execution of the production process, types and methods used in quality control of products, services, dealing with nonconforming product, the criteria for evaluation and selection of suppliers of materials, raw materials for the production, maintenance (planning repair, overhaul, documenting these activities, monitoring of measuring instruments), Human resources (recruitment methods, planning, training, implementation training, motivation system) internal communication (communication techniques used),
- 4 The organization of work at the workplace:
- ? tasks performed on the selected production workplace (types and number of different operations, the division of a selected operation into treatments, activities and working movements)
- ? work standards (quantitative or time bound) way of defining and updating
- ? supervising the workplace,
- ? land use plan of a workstation,
- ? organization of an operating position (materials and tools supply, transportation, maintenance and repair, quality control, distribution of work, settlement of costs).
- 5. Ergonomics of a workplace:
- ? assessment of the working position at operating a manual handling,
- ? designing work zones of upper and lower limbs,
- ? the rhythm and pace of work, monotony
- ? breaks and the opportunity to rest,
- ? physical parameters of the environment (physical, chemical, biological, etc.).
- 6. Procekt of work improvement in the workplace.

### **Basic bibliography:**

## Additional bibliography:

### Result of average student's workload

Activity	Time (working hours)
1. Participation in practicals	160
2. Preparation and presentation of internship reports	2

#### Student's workload

Source of workload	hours	ECTS					
Total workload	165	2					
Contact hours	2	0					
Practical activities	160	2					