

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Quality engineering 1		Code 1011101151011123823
Field of study Safety Engineering - Full-time studies - First-	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 5
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: 15 Laboratory: - Project/seminars: -		No. of credits 4
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences		ECTS distribution (number and %) 4 100%
Responsible for subject / lecturer: dr inż. Hanna Gołaś email: hanna.golas@put.poznan.pl tel. 00 48 61 665 33 65 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań		Responsible for subject / lecturer: dr Waldemar Prussak email: waldemar.prussak@put.poznan.pl tel. 00 48 61 665 33 64 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student defines and describes basic concepts in safety engineering. Student knows rudimentary methods, techniques, tools and materials that are applied in dealing with simple engineering tasks within safety engineering.
2	Skills	Student can assess whether any requirements have not been met. Student can interpret and describe his observations.
3	Social competencies	Student is aware of the meaning of quality for potential addressees and creators of its level. Student is aware of the need to develop products and processes with respect to quality.
Assumptions and objectives of the course: Developing understanding of theoretical aspects and practical ability to use quality engineering in relation to products and processes.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Students knows advanced dependencies that are present within the framework of quality engineering of products and processes - [-]		
2. Student knows concepts for quality engineering of products and processes - [-]		
3. Students knows phenomena characteristic for quality engineering of products and processes - [-]		
4. Student knows fundamental methods, techniques, tools and materials that are applied when solving elementary engineering tasks in quality engineering of products and processes - [-]		
5. Student knows basic dependencies that exist in dealing with easy engineering tasks within the framework of quality engineering of products and processes - [-]		
6. Student has basic knowledge concerning management, including the realm of quality engineering in respect to products and processes - [-]		
7. Student has basic knowledge of running his own business - [-]		
Skills:		
1. Student can identify and formulate a specification of simple engineering tasks that are of practical nature, and are characteristic of quality engineering in respect to products and processes - [-]		
Social competencies:		
1. Understands the need to make progress, gain knowledge and acquire new skills on the professional, personal and social level; can argument the need to learn for the whole of his life - [-]		

Assessment methods of study outcomes		
Formative assessment: a) Classes: current/ongoing evaluation of the tasks which are correlated with lectures b) Lectures: evaluations based on questions relating to the presented materials during the current and previous lectures Collective assessment: a) Classes: 1. Reports presentation (based on classes); 2. oral answer to the set of questions (based on classes) b) Lectures: written test (3 open questions presented during the lecture; each question is scored 2-5 points; final result is an average of partial grades; the final test pass equals at least 3.0		
Course description		
Fundamental approach to the problem of quality. Problematic aspect of normalization and certification. Fundamentals of pro quality management (concepts, rules, systems). Pro quality approach to products and processes including their existence process. Economic aspect of quality. The concept of constant improvement and its precursors. Methods and tools for quality improvement.		
Basic bibliography: 1. Hamrol A. (2008), Zarządzanie jakością z przykładami (Quality managements with examples), Wyd. Naukowe PWN, Warszawa 2. Jasiulewicz-Kaczmarek M., Prussak W. (2010), Inżynieria systemów pro jakościowych (Pro quality system engineering), Wyd. PP, Poznań		
Additional bibliography: 1. Prussak W. (2003, 2006), Zarządzanie jakością. Wybrane elementy (Quality management. Selected elements), Wyd. PP, Poznań		
Result of average student's workload		
Activity	Time (working hours)	
1. lecture	15	
2. classes	15	
3. preparation for credits (based on lectures)	30	
4. preparation for classes	40	
Student's workload		
Source of workload	hours	ECTS
Total workload	100	4
Contact hours	50	2
Practical activities	15	1