

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Quality Management		Code 1011101351011120188
Field of study Engineering Management - Full-time studies -	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: 15		No. of credits 3
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 social sciences		ECTS distribution (number and %) 2 67% 1 33%
Responsible for subject / lecturer: dr inż. Małgorzata Jasiulewicz-Kaczmarek email: malgorzata.jasiulewicz-kaczmarek@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 inż. Anna Mazur email: anna.mazur@put.poznan.pl tel. 00 48 61 665 33 65 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student knows and understands the basic concepts and principles of organization and management.
2	Skills	The student is able to apply the use of basic knowledge of the basics of organization and management.
3	Social competencies	The student is aware of the need for the development of products including the social, environmental and economic requirements .
Assumptions and objectives of the course: The acquisition of competence to understand the basic concepts and the regularities of the quality management as well as dealing with problems in this area.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. has knowledge of the organizational standards concerning quality management - [K1A_W16] 2. has a basic knowledge about the life cycle of the machines (quality approach) - [K1A_W21] 3. has a basic knowledge about the life cycle of industrial products (quality approach) - [K1A_W22] 4. knows the basic methods, techniques, tools and materials used when solving simple quality tasks of engineering construction and machines exploitation - [K1A_W24] 5. has a basic knowledge necessary to understand the non-technical determinants of engineering activities - [K1A_W25] 6. has basic knowledge concerning management, including quality management and conducting business - [K1A_W26] 7. is familiar with the typical industrial technologies, has an in-depth knowledge of building technologies and machines exploitation from the customer requirements - [K1A_W27]		
Skills:		

<p>1. uses normative systems and selected standards and rules in order to deal with quality management tasks - [K1A_U05]</p> <p>2. examines solutions to specific problems from the scope of quality management and suggests appropriate solutions - [K1A_U07]</p> <p>3. The student can (while formulating and solving engineering tasks)-detect their systemic, socio-technical, organizational, economic and non-technical aspects - [K1A_U14]</p> <p>4. make a critical analysis of technological processes of machines production and organization of production systems from product point of view - [K1A_U16]</p> <p>5. is able to identify project tasks and solve simple design tasks in the construction area and machines exploitation from the point of view of customer and stakeholders requirements - [K1A_U17]</p> <p>6. is able to apply some typical methods of solutions to simple problems within the scope of the construction and machines exploitation from users point of view - [K1A_U18]</p> <p>7. is able to design a construction and technology of simple parts and machines? components, as well as the organization of production process in the first degree of complexity from the quality point of view - [K1A_U19]</p>
<p>Social competencies:</p> <p>1. The student is aware of the responsibility for his own work and can work in a team to manage the quality management system - [K1A_K02]</p> <p>2. The student can discern some cause-and-effect dependencies in the process of achieving of the objectives and can rank the relevance of alternative or competing tasks - [K1A_K03]</p> <p>3. Can contribute to a factual input in the preparation of the social projects and manage the ventures resulting from these projects - [K1A_K05]</p> <p>4. The Student is aware of and understands the non-technical aspects and effects for engineering activity., including its impact on the environment - [K1A_K08]</p>

<p>Assessment methods of study outcomes</p>
<p>Formative assessment:</p> <p>a) Classes: current/ongoing evaluation of the tasks which are correlated with lectures</p> <p>b) Projects: current/ongoing evaluation of work progress on a given project</p> <p>c) Lectures: evaluations based on questions relating to the presented materials during the current and previous lectures</p> <p>Collective assessment:</p> <p>a) Classes: 1. Reports presentation (based on classes); 2. oral answer to the set of questions (based on classes)</p> <p>b) Projects: evaluation of the presented solution with reference to the chosen project, which was the subject of the project work</p> <p>c) Lectures: test</p>
<p>Course description</p>
<p>902/5000</p> <p>Principles of approach to product quality, processes and systems (social, environmental and economic aspects). Qualitative approach in product lifecycle (quality of design, quality of work, quality of service, quality of disposal) Standardization and certification. Pro-quality management principles. Selected systems and standards for quality management. Methods and tools for quality improvement (eg quality plan, FMEA, QFD, Ishikawa diagram, Pareto analysis, Deming).</p> <p>Teaching methods used: Lecture - multimedia lecture, case study analysis Exercises - team work, problem solving, problem solving, problem solving, team presentation and group discussion Project - team work, design of quality control and research plans for selected product realization and accompanying documents, presentation of solutions and discussion in the group forum</p>
<p>Basic bibliography:</p> <p>1. Zymonik Z., Hamrol A., Grudowski P., Zarządzanie jakością i bezpieczeństwem, Warszawa 2013</p> <p>2. Jasiulewicz-Kaczmarek A., Misztal A., Projektowanie i integracja systemów zarządzania projekcyjnego, Wydawnictwo PP, Poznań 2014</p> <p>3. B. Starzyńska, A. Hamrol, M. Grabowska ?Poradnik menedżera jakości?, Poznań 2010</p> <p>4. Mazur A., Gołas H., Zasady, metody i techniki wykorzystywane w zarządzaniu jakością, Wydawnictwo Politechniki Poznańskiej 2010</p>

Additional bibliography:		
1. PN-EN ISO 9000:2015 "Systemy zarządzania jakością - terminologia"		
2. PN-EN ISO 9001:2015 "Systemy zarządzania jakością - wymagania"		
3. Gruszka J., Gołaś H., Jasiulewicz-Kaczmarek M., Model kosztów jakości w branży motoryzacyjnej, Problemy jakości 11/2016		
Result of average student's workload		
Activity	Time (working hours)	
1. Lecture	15	
2. Preparation for credits (based on lectures)	10	
3. Classes	15	
4. Preparation for classes	15	
5. Project	15	
6. Preparation for the project	20	
7. Credits and project presentation	10	
Student's workload		
Source of workload	hours	ECTS
Total workload	100	3
Contact hours	55	2
Practical activities	30	1