

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Quality Management		Code 1011101151011120188
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		ECTS distribution (number and %)
Responsible for subject / lecturer: dr inż. Hanna Golaś 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 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 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. The student has knowledge of the organizational standards concerning quality management - [K1A_W16] 2. The student has a basic knowledge about the life cycle of the machines - [K01-InzA_W01] 3. The student has a basic knowledge about the life cycle of industrial products - [K02-InzA_W01] 4. The student knows the basic methods, techniques, tools and materials used when solving simple tasks of engineering construction and machines exploitation - [K04-InzA_W02] 5. The student has a basic knowledge necessary to understand the non-technical determinants of engineering activities - [K05-InzA_W03] 6. The student has basic knowledge concerning management, including quality management and conducting business - [K06-InzA_W04] 7. The student is familiar with the typical industrial technologies, has an in-depth knowledge of building technologies and machines exploitation - [K07-InzA_W5]		
Skills:		

<p>1. The student uses normative systems and selected standards and rules in order to deal with quality management tasks - [K1A_U05]</p> <p>2. The student 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 - [K01-InzA_U3]</p> <p>4. The student is able to make a critical analysis of technological processes of machines production and organization of production systems - [K01-InzA_U5]</p> <p>5. The student is able to identify project tasks and solve simple design tasks in the construction area and machines exploitation - [K01-InzA_U6]</p> <p>6. The student is able to apply some typical methods of solutions to simple problems within the scope of the construction and machines exploitation - [K01-InzA_U7]</p> <p>7. The student 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 - [K01-InzA_U8]</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 - [K2A_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 - [K01-InzA_K1]</p>

Assessment methods of study outcomes	
<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: 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</p>	
Course description	
<p>Basic approaches to the problematic aspect of the quality of products, processes and systems. Normalisation and certification. Pro quality management policies. Selected systems and quality management standards. Integration of management systems. The economics of quality. Improvement of quality. Foundation of TQM (Total Quality Management). Methods and tools of quality improvement (e.g., quality plan, FMEA, QFD, Ishikawa diagram, Pareto analysis, Deming wheel).</p>	
Basic bibliography:	
<p>1. Hamrol A. (2008), Zarządzanie jakością z przykładami (Quality managements with examples), Wyd. Naukowe PWN, Warszawa</p> <p>2. Jasiulewicz-Kaczmarek M., Prussak W. (2010), Inżynieria systemów pro jakościowych (Pro quality systems engineering), Wyd. PP, Poznań</p> <p>3. Prussak W. (2003, 2006), Zarządzanie jakością. Wybrane elementy (Quality management. Selected elements), Wyd. PP, Poznań</p> <p>4. Golaś H., Mazur A. (2011), Wdrażanie systemu zarządzania jakością (The implementation of the quality management system), Wyd. PP, Poznań</p>	
Additional bibliography:	
<p>1. Jasiulewicz-Kaczmarek M., Misztal A., Mrugalska B. (2011), Projektowanie systemów zarządzania jakością (Design of quality management systems), Wyd. PP, Poznań</p> <p>2. Łunarski J. (2006), Zarządzanie jakością. Standardy i zasady (Quality management. Standards and policies), WNT, Warszawa</p>	
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, final exam and project presentation	10	
Student's workload		
Source of workload	hours	ECTS
Total workload	100	3
Contact hours	55	2
Practical activities	30	1