

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Quality engineering 2</b>		Code <b>1011104261011123824</b>
Field of study <b>Safety Engineering - Part-time studies - First-</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>3 / 6</b>
Elective path/specialty <b>-</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>First-cycle studies</b>	Form of study (full-time,part-time) <b>part-time</b>	
No. of hours Lecture: <b>12</b> Classes: <b>12</b> Laboratory: <b>-</b> Project/seminars: <b>8</b>		No. of credits <b>4</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art		ECTS distribution (number and %)
<b>Responsible for subject / lecturer:</b> 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		<b>Responsible for subject / lecturer:</b> 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
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Student defines and describes basic concepts in quality engineering related to products and processes.
2	<b>Skills</b>	Student can identify and solve simple engineering tasks of practical nature, that are typical of quality engineering related to products and processes.
3	<b>Social competencies</b>	Student understands the need and knows means how to gain knowledge and make progress within a given area of study. He knows how to develop in a professional, personal and social aspects, characteristic for quality engineering of products and processes.
<b>Assumptions and objectives of the course:</b> Developing understanding of theoretical aspects and practical ability to use quality engineering in relation to pro quality systems.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
1. Students knows detailed dependencies that are present in use quality engineering in relation to pro quality systems - [K1A_W10]		
2. Student knows interpretations that are characteristic of use quality engineering in relation to pro quality systems - [K1A_W11]		
3. Student knows fundamental methods, techniques, tools and materials that are applied when solving elementary engineering tasks in quality engineering, in relation to pro quality systems - [K1A_W17]		
4. Student knows basic dependencies that exist in dealing with easy engineering tasks within the framework of quality engineering - [K1A_W18, K1A_W19]		
5. Student has basic knowledge concerning management, including the realm of quality engineering in respect to pro quality systems - [K1A_W22]		
6. Student has basic knowledge of running his own business - [K1A_W23]		
<b>Skills:</b>		
1. Student can create a well- documented report of problems within quality engineering with respect to pro quality systems - [K1A_U03]		
2. Student has self-study ability and comprehends it - [K1A_U05]		
3. Student is able to identify and formulate the specification of simple practical engineering tasks, characteristic on quality engineering - [K1A_U14]		
4. Student is able to assess the usefulness of routine methods and tools to solve simple practical engineering tasks, characteristic on quality engineering and can select and use methods and tools - [K1A_U15]		

<p><b>Social competencies:</b></p> <p>1. Student understands the need to make progress, gain knowledge and acquire new skills on the professional, personal and social level; can argue the need to learn for the whole of his life - [K1A_K01]</p> <p>2. Student is fully aware of the responsibility that he has taken for his own work and expresses readiness to comply with the rules of team work as well as takes responsibility for mutually realized and completed tasks - [K1A_K03]</p>
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<p><b>Assessment methods of study outcomes</b></p>
<p>Formative assessment:</p> <p>Classes: current/ongoing evaluation (2-5) of assigned tasks;</p> <p>Projects: current/ongoing evaluation of work progress on a given project;</p> <p>Lectures: evaluations based on questions relating to the presented materials during the current and previous lectures.</p> <p>Collective assessment:</p> <p>Classes: average of partial exercises; credits given after achieving at least 3.0;</p> <p>Projects: evaluation of the presented solution with reference to the chosen project; credits given after achieving at least 3.0;</p> <p>Lectures: written exam (5 open questions with content presented during the lectures); each question is scored 2-5 points; final result is an average of partial grades; the exam pass equals at least 3.0.</p>

<p><b>Course description</b></p>
<p>The rule of system approach in quality management. Selected standards of pro quality systems. Developing pro quality culture in an organization. Design, introduction and exploitation of pro quality management systems. Systems integration. Applying selected pro quality methods and tools to make pro quality systems more effective.</p>

<p><b>Basic bibliography:</b></p> <p>1. Golaś H., Mazur A. (2011), Wdrażanie systemu zarządzania jakością (Quality management system implementation), Wyd. PP, Poznań</p> <p>2. Jasiulewicz-Kaczmarek M., Misztal A., Mrugalska B. (2011), Projektowanie systemów zarządzania jakością (Quality management system design), Wyd. PP, Poznań</p> <p>3. Jasiulewicz-Kaczmarek M., Prussak W. (2010), Inżynieria systemów pro jakościowych (Pro quality systems engineering), Wyd. PP, Poznań</p>
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<p><b>Additional bibliography:</b></p> <p>1. Hamrol A., Zarządzanie jakością z przykładami (Quality management with examples), Wyd. Naukowe PWN, Warszawa 2008</p> <p>2. Prussak W., Zarządzanie jakością. Wybrane elementy (Quality management. Selected elements), Wyd. PP, Poznań 2006</p> <p>3. Starzyńska B., Hamrol A., Grabowska M., Poradnik menedżera jakości (Quality manager's guide), Wyd. Politechniki Poznańskiej, Poznań 2012</p>
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<p><b>Result of average student's workload</b></p>	
<p><b>Activity</b></p>	<p><b>Time (working hours)</b></p>
1. Lecture	12
2. Preparation for an exam	20
3. Classes	12
4. Preparation for classes test	24
5. Project work	8
6. Preparation of the project	24

<p><b>Student's workload</b></p>		
<p><b>Source of workload</b></p>	<p><b>hours</b></p>	<p><b>ECTS</b></p>
Total workload	100	4
Contact hours	40	2
Practical activities	60	2