

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Services engineering</b>		Code <b>1010612221010646535</b>
Field of study <b>Mechanika i budowa maszyn</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>1 / 2</b>
Elective path/specialty <b>Product engineering (Inżynieria produktu)</b>	Subject offered in: <b>English</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>Second-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: <b>1</b> Classes: <b>1</b> Laboratory: <b>-</b> Project/seminars: <b>-</b>		No. of credits <b>2</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 <b>technical sciences</b> <b>Technical sciences</b>		ECTS distribution (number and %) <b>2 100%</b> <b>2 100%</b>
<b>Responsible for subject / lecturer:</b>  dr inż. Krzysztof Koper email: krzysztof.koper@put.poznan.pl tel. 61 665 2110 Machines and Transport ul. Piotrowo 3, 60-965 Poznań		
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Elementary knowledge of economics, business in industrial companies, the banking system, commercial law and accounting.
2	<b>Skills</b>	Ability to obtain information from the literature, internet, databases and other sources. Ability to create a diagram of a system, select its items and perform basic calculations.
3	<b>Social competencies</b>	Awareness and understanding the importance and impact of non-technical aspects of engineering activities. Ability to think and act in an entrepreneurial manner.
<b>Assumptions and objectives of the course:</b> Teaching how to add value to services using scientific and engineering principles, including project management, methods for increasing productivity, inspiring creativity and innovations in services development and management processes. Roles and emplacement of product engineer/manager in global service sectors.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b> 1. In-depth knowledge of business economy in the technology-related service sectors. - [K2A_W14]		
<b>Skills:</b> 1. Ability to develop technical description, market offer and documentation for a complex service in the technology-related business sectors. - [K2A_U16]		
<b>Social competencies:</b> 1. Ability to take a leading role in the development, marketing and provision of technology-related services. - [K2A_K02] 2. Ability to take a leading role in the development, marketing and provision of technology-related services. - [K2A_K06]		
<b>Assessment methods of study outcomes</b>		
Lecture: written examination. Exercise: evaluation of assignments prepared each meeting.		
<b>Course description</b>		

<p>Management and operations of service systems. Service processes. Roles of technologists versus managers/leaders in service sector. Marketing management for service systems engineers. Knowledge management. Creativity and innovations in services. Analytical and interpersonal skills of service systems manager. Financial and cost analysis of service processes. Ethics and integrity in service systems management and provision of services.</p>		
<p><b>Basic bibliography:</b>                  1. Chang C. M., Service Systems Management and Engineering: Creating Strategic Differentiation and Operational Excellence, 2010, Wiley                  2. Salvendy G. (ed.), Karwowski W., Introduction to Service Engineering, 2010, Wiley</p>		
<p><b>Additional bibliography:</b>                  1. Kasper, H., Helsdingen, P., Gabbott, M., Services Marketing Management - a strategic perspective, 2006, Wiley                  2. Payne A., McDonald M. B., Marketing Planning for Services, 1996, Routledge</p>		
<p><b>Result of average student's workload</b></p>		
<p><b>Activity</b></p>	<p><b>Time (working hours)</b></p>	
1. Lecture participation	15	
2. Consolidation of lecture content	2	
3. Exercises participation	15	
4. Consultation	1	
5. Preparation for assessment	6	
6. Assessment participation	1	
<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	40	2
Contact hours	30	2
Practical activities	0	0