

WSB University							
Field of study: Production Management and Engineering							
Course: PROBLEM SOLVING							
Educational profile: practical							
Education level: first-cycle studies							
Number of hours per semester	1		2		3		4
	I	II	III	IV	V	VI	VII
Full-time studies (L/C/lab/pr/e)*						14	
Part-time studies (L/C/lab/pr/e)*						12	
LECTURER							
FORM	Classes						
COURSE OBJECTIVES	Familiarizing participants with active problem solving methods in organizations – practical problem solving						
Field-related learning outcome	Reference to PQF	Description of learning outcomes		Method of verification of learning outcomes			
		Knowledge The student					
ZIP_W02	P6S_WG	Has the advanced knowledge and understanding of Problem Solving concepts, including English vocabulary and the use of the Problem Solving methodology in fulfilling tasks and solving problems in production management and engineering.		Presentation of the developed project showing the Problem Solving process, presenting the tools used, proces input data and results achieved.			
ZIP_W07	P6S_WG	Has the advanced knowledge of the ability to solve problems in the field of production management and engineering by means of the modern Problem Solving method		Presentation of the developed project showing the Problem Solving process, presenting the tools used, proces input data and results achieved.			
		Skills The student					
ZIP_U08	P6S_UW, Eng.	Can critically analyze and assess the functioning of existing technical solutions in the organization of production, at the same time proposing improvements using methods and appropriate tools Problem Solving		By presenting the developed project presenting the Problem Solving process, presenting the tools used, input data and results achieved.			
ZIP_U16	P6S_UK	Can communicate with the environment using specialist terminology in the field of problem solving methodology in solving problems related to production management and engineering		discussion			

		<b>Social competences</b>	
		<b>The student</b>	
<b>ZIP_K01</b>	P6S_KK	is ready to critically assess the usefulness of the Problem Solving method in decision-making and problem solving.	Open discussion during classes enabling the teacher to check the competences of students during the discussion about the presented business cases
<b>ZIP_K02</b>	P6S_KK	Is ready to use expert opinion in the case of difficulties in solving practical problems, managerial and engineering tasks.	Open discussion during classes enabling the teacher to check the competences of students during the discussion about the presented business cases
<b>Student's own workload (1h teaching hour=45 minutes)**</b>			
<b>Full-time</b> participation in lectures = participation in classes = 14h preparation for classes = 14h preparation for lectures/tutorial = preparation for an end-of-term test/examination = 18h assignment preparation project tasks = e-learning = credit/examination = 2h other = 2h consultation <b>Total:50h</b> <b>ECTS points: 2</b> <b>Including practical classes: 2h</b>		<b>Part-time</b> participation in lectures = participation in classes = 12h preparation for classes = 16h preparation for lectures/tutorials = preparation for an end-of-term test//examination = 18h end-of-term assignment preparation, literature analysis e-learning = credit/examination = 2h other = 2h consultation <b>Total:50h</b> <b>ECTS points: 2</b> <b>Including practical classes: 2h</b>	
<b>PREREQUISITES</b>			
<b>COURSE CONTENT</b>		Contact hours: Classes via the MS Teams platform Acquisition of knowledge by participants of active methods and tools to solve problems in organizations – Practical Problem Solving. The use of the learned methodology in practice  <ol style="list-style-type: none"> <li>1. Creating Problem Teams and defining a goal</li> <li>2. The role of communication in the problem-solving process.</li> <li>3. Increasing the efficiency of problem solving by developing creativity and teamwork.</li> <li>4. Analysis with economic assessment of the problem presented in the organization</li> <li>5. Identification and evaluation of submitted ideas within the framework of the Problem Team's work.</li> <li>6. Therapy together with the evaluation of proposals for solutions presented by participants of the Problem Team.</li> </ol>	
<b>COMPULSORY LITERATURE</b>		Materials developed by the teacher, business case	
<b>OPTIONAL LITERATURE</b>		M. Prasad – Pragmatism as Problem Solving; Socius Sociological Research for a Dynamic World, Feb 2021 C. Conn, R. McLean – Bulletproof Problem Solving, 2019	
<b>TEACHING METHODS</b>		Contact hours:	

	Mini lecture, multimedia presentation of teaching material, discussion. Exchange of experience with Students who have experience acquired during the internship, work placement or at work. Using Problem Solving tools in group work, solving prepared case studies.
<b>TEACHING AIDS</b>	Materials developed by the teacher, business case. Sheets for the use of active Problem Solving methods, SMART, 5W2H, Ishikawa Diagram, Philips 6-2-3, 8D, A3.
<b>PROJECT (if implemented in the framework of a classes module)</b>	Development and presentation to the group of a project presenting the use of the Problem Solving tools, as part of a three-stage approach to problem solving in the organization. <ol style="list-style-type: none"> <li>1. Presentation of the organization</li> <li>2. Selection of the problem and determination of SMART goal.</li> <li>3. Problem analysis by means of the 5W2H method with cost analysis</li> <li>4. Identification and evaluation of submitted ideas using the Ishikawa Diagram</li> <li>5. Evaluation of submitted ideas using the Philips 6-2-3 method.</li> <li>6. Presentation of benefits resulting from solving the problem in the organization.</li> </ol>
<b>FORM AND CONDITIONS OF ASSESSMENT</b>	Development and presentation of the solution using the Problem Solving method, evaluation of active participation during classes Positive substantive assessment of the solution developed and presented using the Problem Solving method.

\* L-lecture, C- classes lab- laboratory, pr- project, e- e-learning