

ASSUMED LEARNING OUTCOMES

FACULTY: Faculty of Management

MAIN FIELD OF STUDY: Business Engineering

EDUCATION LEVEL: second-level studies

PROFILE: general academic

Location of the main-field-of study:

Branch of science: Social sciences/ Engineering and Technology

Discipline / disciplines (for several disciplines, please indicate the major discipline)

D1: Management and quality studies (major discipline)

D2: Computer Engineering and Telecommunications

Explanation of the markings:

P7U – universal first degree characteristics corresponding to education at the second-level studies - 7 PRK level

P7S – second degree characteristics corresponding to education at the second-level studies - 7 PRK level

W - category "knowledge"

U - category "skills"

K - category "social competences"

K (*faculty symbol*) _W1, K (*faculty symbol*) _W2, K (*faculty symbol*) _W3, ... - main-field-of study learning outcomes related to the category "knowledge"

K (*faculty symbol*) _U1, K (*faculty symbol*) _U2, K (*faculty symbol*) _U3, ... - main-field-of study learning outcomes related to the category "skills"

K (*faculty symbol*) _K1, K (*faculty symbol*) _K2, K (*faculty symbol*) _K3, ... - main-field-of study learning outcomes related to the category "social competences"

S (*faculty symbol*) _W..., S (*faculty symbol*) _W..., S (*faculty symbol*) _W..., ... - specialization learning outcomes related to the category "knowledge"

S (*faculty symbol*) _U..., S (*faculty symbol*) _U..., S (*faculty symbol*) _U..., ... - specialization learning outcomes related to the category "skills"

S (*faculty symbol*) _K..., S (*faculty symbol*) _K..., S (*faculty symbol*) _K..., ... - specialization learning outcomes related to the category "social competences"

... _inż. – learning outcomes related to the engineer competences

Main field of study learning outcomes	Description of learning outcomes for the main-field-of study BUSINESS ENGINEERING After completion of studies, the graduate:	Reference to PRK characteristics		
		Universal first degree characteristics (U)	Second degree characteristics typical for qualifications obtained in higher education (S)	
			Characteristics for qualifications on 7 levels of PRK	Characteristics for qualifications on 6 and 7 levels of PRK, enabling acquiring engineering competences
KNOWLEDGE (W)				
K2_IZ_W1	Knows and understands advanced IT models, methods and tools, especially simulation tools, used to solve management decision-making problems.	P7U_W	P7S_WG P7S_WK	
K2_IZ_W2	Knows and understands the methods and IT tools of data preparation, coming from various sources, necessary to make business decisions.	P7U_W	P7S_WG P7S_WK	
K2_IZ_W3	Knows and understands technologies, the most important functions and applications of IT solutions supporting business.	P7U_W	P7S_WG P7S_WK	
K2_IZ_W4	Knows and understands to a greater extent theoretical methods (mathematical, econometric, statistical, forecasting) used to support decision-making processes, including explaining the complex relationships between the phenomena occurring in these processes in the area of management.	P7U_W	P7S_WG	P7S_WG_inż
K2_IZ_W5	Knows professional IT packages for modeling and statistical and econometric analyzes supporting the solution of decision problems in management processes.	P7U_W	P7S_WG	P7S_WG_inż
K2_IZ_W6	Identifies inter-organizational relations and interactions of the organization with the environment in the context of national, international and intercultural conditions. Explains and illustrates the impact of the environment on the activities of the organization.	P7U_W	P7S_WK	
K2_IZ_W7	Has extended and in-depth substantive knowledge of the organization and functioning of the enterprise in the field of strategic management, logistics, marketing, finance, and business architecture.	P7U_W	P7S_WG P7S_WK	
K2_IZ_W8	Has in-depth knowledge of technical means and IT systems of communication in organizations (including the processes taking place in their life cycle) and knows the features of an efficient communication process.	P7U_W	P7S_WG	P7S_WG_inż

K2_IZ_W9	Has in-depth knowledge of the methods and techniques of diagnosing and improving activities in individual functional areas of the organization and selected methods of researching the environment of the enterprise. He knows the norms and standards in individual functional areas.	P7U_W	P7S_WG	P7S_WG_inż
K2_IZ_W10	He knows and understands the in-depth understanding of the essence of risk, its sources and the need to limit it in the functioning of enterprises. He knows the principles of risk management and the methods of its measurement and methods of its estimation and reduction.	P7U_W	P7S_WG	
K2_IZ_W11	Knows and understands the interactions occurring in selected physical systems between their individual elements and people (employees) functioning within them.	P7U_W	P7S_WK	P7S_WG_inż
K2_IZ_W12	Knows and understands the social decision-making and leadership mechanisms in an organization.	P7U_W	P7S_WG	
K2_IZ_W13	Knows and understands the norms and standards (economic, legal, organizational and ethical) that determine the context of the economy and organization.	P7U_W	P7S_WK	
K2_IZ_W14	Knows and understands the concepts, theories, methods and instruments in the field of economic and legal policy used to regulate the economy.	P7U_W	P7S_WG	
K2_IZ_W15	Knows and deeply understands the process of project management and project portfolio at all stages of its implementation, in particular, he knows the advanced level of agile methodologies as well as mathematical and IT tools.	P7U_W	P7S_WG	P7S_WG_inż P7S_WK_inż
K2_IZ_W16	Has an extended and in-depth knowledge of the principles of building and functioning teams and the factors influencing their efficiency	P7U_W	P7S_WG	
SKILLS (U)				
K2_IZ_U1	Can choose methods and IT tools, especially simulation ones, to build models of management decision problems, and perform experiments to assess the effects of decision variants.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U2	Using IT tools, student can search, combine, organize and present data for the purposes of making business decisions.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U3	Using IT tools student can analyze the requirements of available technologies and plan the use of IT solutions supporting business.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U4	By participating in business decision-making processes, is able to plan and carry out experiments and - by making	P7U_U	P7S_UW	P7S_UW_inż

	measurements and computer simulations - to interpret the obtained results and draw conclusions.			
K2_IZ_U5	Can use analytical, simulation and experimental methods to identify and formulate specifications of engineering tasks and to solve them.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U6	Can make a critical analysis of the functioning of the existing IT tools for management and evaluate these solutions and - in accordance with the given specification - design and implement simple IT tools typical for management, using appropriately selected appropriate methods, techniques, technologies and tools.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U7	Can use knowledge in the selection of sources and information necessary to build complex models of decision-making processes and make a critical and synthetic analysis of this information.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U8	Can use knowledge to formulate and test hypotheses verifying the usefulness of methods and models to support decision-making processes in the area of management.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U9	Can use knowledge in the field of knowledge of professional IT packages for modeling and statistical analyzes for the purpose of solving decision problems in the area of management.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U10	Can use specialized language to communicate in the professional environment in the field of specific issues in the area of management and quality sciences - in Polish and a foreign language (1).	P7U_U	P7S_UK	
K2_IZ_U11	Understands Polish and foreign (1) texts in the field of management, can interpret them, draw conclusions, obtain necessary information, interpret and critically evaluate them, read professional literature, business and organizational documentation with understanding.	P7U_U	P7S_UK	
K2_IZ_U12	Speaks a foreign language (2) sufficiently understandable for a native speaker of the language and uses basic linguistic measures relating to the specific needs of everyday life, both in written and spoken form.	P7U_U	P7S_UK	
K2_IZ_U13	Uses basic skills in a foreign language (2): understands simple spoken and read texts, can establish social contacts, expresses coherently on a known topic, can write an e-mail, card or note.	P7U_U	P7S_UK	
K2_IZ_U14	Distinguishes and uses to a limited extent the official and unofficial variety of a foreign language (2) and uses basic	P7U_U	P7S_UK	

	sociocultural knowledge in communication in a given foreign language (2).			
K2_IZ_U15	Has the ability to analyze the causes and dynamics of phenomena in the organization's environment in the conditions of a market economy and the applicable economic and legal regulations.	P7U_U	P7S_UW P7S_UK	
K2_IZ_U16	Is able to analyze and evaluate goals, features, elements, processes, functional areas in the enterprise as well as internal and inter-organizational relations, using concepts and theoretical approaches in the field of social sciences, in particular the discipline of management and quality science.	P7U_U	P7S_UW P7S_UK	
K2_IZ_U17	Is able, using appropriate methods and tools, to design: systems and processes in the area of logistics, enterprise strategy, business architecture, communication management and projects implemented in the form of projects.	P7U_U	P7S_UW P7S_UK	P7S_UW_inż
K2_IZ_U18	Can formulate innovative alternative solutions to management and substantive problems in the enterprise. Can justify, make a choice and verify them in accordance with the established priorities. Can plan actions to solve them.	P7U_U	P7S_UW P7S_UK	P7S_UW_inż
K2_IZ_U19	Can identify risk factors and assess their impact on the course and results of the process and propose preventive actions.	P7U_U	P7S_UW P7S_UK	P7S_UW_inż
K2_IZ_U20	Can plan the course of measurements and evaluation of the parameters of selected physical systems, also taking into account the human factor.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U21	Can describe selected issues encountered in everyday and professional life using mathematical and physical formalism and draw conclusions.	P7U_U	P7S_UW	P7S_UW_inż
K2_IZ_U22	Can solve problems in communicating with diverse groups of recipients in team forms of work organization.	P7U_U	P7S_UK	
K2_IZ_U23	Can identify behavioral factors and methods influencing team work management, decision making and assuming the role of a leader in the organization.	P7U_U	P7S_UO	
K2_IZ_U24	Can use his knowledge to analyze economic phenomena and solve economic problems as well as adapt, justify and apply appropriate norms and standards (economic, legal, social) in specific activities in the organization.	P7U_U	P7S_UW	
K2_IZ_U25	Can use his knowledge to identify the potential effects of the introduced economic and legal regulations for enterprises.	P7U_U	P7S_UW	
K2_IZ_U26	Has developed research skills: formulates simple hypotheses and research problems, selects adequate methods, techniques	P7U_U	P7S_UW	P7S_UW_inż

	and research tools, develops, presents and interprets research results, draws conclusions, indicates directions for further research in the field of management and quality sciences, technical information technology and telecommunications.			
K2_IZ_U27	Is able to identify - at an advanced level, complex and unusual management and substantive problems in projects implemented in the form of a project.	P7U_U	P7S_UW P7S_UK	P7S_UW_inż
SOCIAL COMPETENCES (K)				
K2_IZ_K1	Is ready to take actions to comply with the principles of professional ethics.	P7U_K	P7S_KR	
K2_IZ_K2	Can cooperate and work in group and team forms of work organization (assuming different roles in them).	P7U_K	P7S_KR P7S_KO	
K2_IZ_K3	is ready to flexibly search for and select methods and tools for solving problems arising in the workplace.	P7U_K	P7S_KK	
K2_IZ_K4	Is ready to lead and take responsibility for the group, organize and manage his own and others' work, taking into account the changing individual, team and organizational needs.	P7U_K	P7S_KR P7S_KO	
K2_IZ_K5	Is ready to critically assess and resolve problems (recognizing the importance of expert knowledge and opinions) regarding decision-making and leadership in the group and organization, including meeting social obligations and initiating activities for the public interest and the social environment.	P7U_K	P7S_KK P7S_KO	
K2_IZ_K6	Is aware of the need for an independent, critical assessment of the scope and level of his knowledge and professional skills, both in the field of management and quality sciences, technical informatics and telecommunications, as well as in the interdisciplinary dimension. Is prepared to independently search for areas of knowledge to supplement and skills to improve.	P7U_K	P7S_KK P7S_KO P7S_KR	
K2_IZ_K7	Is prepared to behave in a professional and ethical manner; perceives and formulates ethical dilemmas related to his own and someone else's work; seeks appropriate solutions and the possibility of correcting irregularities in their attitudes and behavior in the workplace.	P7U_K	P7S_KK P7S_KO P7S_KR	