

EFFECTS OF EDUCATION FOR A MAJOR

DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT

Study major: MANAGEMENT

Degree of the studies: 1ST DEGREE STUDIES

Field of Knowledge/Education: FIELD OF SOCIAL SCIENCES

Field of science: DOMAIN OF ECONOMIC SCIENCES

Scientific discipline: MANAGEMENT SCIENCES

Profile: GENERAL ACADEMIC

| No. | Symbols for effects of education for the major | EFFECTS OF EDUCATION FOR THE MAJOR First degree studies After graduating from first degree studies majoring in <i>Management, a graduate will characterised by the following knowledge and abilities</i> | Polish Qualifications Framework |
|------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| KNOWLEDGE | | | |
| 1. | K1_ZARZ_W01 | Can explain the nature and the place of economic science in the system of sciences, as well as their relations with other social and technical sciences. Can explain the origin and evolution of economic science, including management science. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WG3 P6S_WK |
| 2. | K1_ZARZ_W02 | Arranges and systematises fundamental knowledge in various economic sciences. Distinguishes between and characterises basic types of economic systems and their elements. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |
| 3. | K1_ZARZ_W03 | Knows and explains the content of basic economic terms, laws and dependencies at the microeconomic and the macroeconomic scale. Characterises major theories in economics. Knows the basic purposes and institutions of a market economy and their functions. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |

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| 4. | K1_ZARZ_W04 | Understands the basic legal regulations governing the establishment and functioning of an economic organisation. Knows and understands the basic notions and principles of industrial property protection and copyright. | P6U_W P6S_WK |
| 5. | K1_ZARZ_W05 | Distinguishes between and characterises basic types and forms of organisation, identifies their objectives and other elements. Can explain key concepts in the theory of organisation with regard to their formation, functioning, transformation and development. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |
| 6. | K1_ZARZ_W06 | Identifies inter-organisational relations and the interactions of an organisation with the environment in the context of national, international and intercultural determinants. Explains and illustrates the influence of environmental impacts on the activities of an organisation. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |
| 7. | K1_ZARZ_W07 | Explains the essence of management, knows basic trends (schools) in the theory of organisation and management. Recognises the conceptual basics of management, interprets functions of management. Applies basic classification criteria to management methods and techniques. Describes selected management methods and techniques. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |
| 8. | K1_ZARZ_W08 | Fundamental knowledge regarding organisational structures, structure-making factors and their shaping processes. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 9. | K1_ZARZ_W09 | Identifies functional areas of an enterprise, relations between them, as well as key factors shaping the effectiveness and efficiency of operations implemented in those functional areas. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 10. | K1_ZARZ_W10 | Describes basic notions, identifies problems, characterises methods and tools of marketing and sales. Knows and explains the essence and phases in the marketing management of an organisation. Classifies and characterises consumer behaviour. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |
| 11. | K1_ZARZ_W11 | Knows and characterises elements of the financial system. Basic knowledge of accounting, corporate finance and finance management. Knows the standards of financial reporting and methods for evaluating the economic and financial situation of an organisation, as well as investment efficiency calculus. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 12. | K1_ZARZ_W12 | Basic knowledge of human resources in an organisation and their strategic nature. Knows the objectives, elements and determinants of the staff management process and characterises their mutual relations. Indicates and classifies instruments for selecting, motivating, developing, evaluating, rewarding employees; knows the principles of their effective use. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |

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| 13. | K1_ZARZ_W13 | Knows basic notions and tools for the management of production and services. Basic knowledge of the functioning of production systems and processes. Knows basic methods for production and service management. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 14. | K1_ZARZ_W14 | Basic knowledge of logistic systems and processes; recognises their elements. Knows the objectives and functions of logistics in an organisation and supply chain. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 15. | K1_ZARZ_W15 | Explains the essence and meaning of issues of quality in management, knows the basic notions, objectives, regularities and problems associated with quality management. Identifies areas for improving the quality of resources, structures, processes, procedures and their determinants and, as a result, - the quality of products and services. Understands the ideas of standardisation and certification in an organisation. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 16. | K1_ZARZ_W16 | Basic knowledge of methods and techniques for diagnosing and improving particular areas of the operations of functional organisations, as well as selected methods of examining the environment of an enterprise. Knows basic norms and standards in particular functional areas. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |
| 17. | K1_ZARZ_W17 | Basic knowledge of the psychology and sociology of organisation. Interprets the basic concepts of a person and explains motivation theories. Characterises the essence and determinants of leadership. | P6U_W P6S_WG P6S_WG1 P6S_WG3 |
| 18. | K1_ZARZ_W18 | Basic knowledge of the regularities between organisational behaviour and their determinants. Knows the principles of the building and functioning of teams and factors affecting their efficiency. Describes the notion of organisational culture and its importance in management. Knows basic measures and systems of communication in organisations and the characteristics of efficient communication process. | P6U_W P6S_WG P6S_WG1 P6S_WG3 |
| 19. | K1_ZARZ_W19 | Explains the essence of managing change in an organisation, indicates the sources of resistance against changes and ways of neutralising them. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |
| 20. | K1_ZARZ_W20 | Explains the essence, objectives and principles of project management. Knows the methodology and instruments of project management. | P6U_W P6S_WG P6S_WG1 |
| 21. | K1_ZARZ_W21 | Explains the notion of innovation and distinguishes between its types. Recognises the characteristics and determinants of innovativeness of an organisation. Describes innovative processes occurring within an organisation. Characterises the essence and forms of entrepreneurship and identifies the conditions for its formation and development. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |

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| 22. | K1_ZARZ_W22 | Knows basic rules of physics, explains the impact of the material work environment on the encumbrance of an employee. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 23. | K1_ZARZ_W23 | Knows the calculus of vectors and matrix calculus. Basic knowledge of mathematical analysis: extremes of functions, differential and integral calculus, functions of one and several variables. Basic knowledge of differential equations. Knows mathematical methods used in economics and in management sciences. | P6U_W P6S_WG P6S_WG1 |
| 24. | K1_ZARZ_W24 | Knowledge with regard to the development and application of mathematical and IT tools in various functional fields of an organisation. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 25. | K1_ZARZ_W25 | Knows basic statistical methods and IT tools for the collection, analysis and presentation of data describing economic and social processes. | P6U_W P6S_WG P6S_WG1 |
| 26. | K1_ZARZ_W26 | Knows the basic characteristics of IT management systems and the basics for constructing classifications of such systems. Describes the basic elements of methodologies for building and implementing IT management systems. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 27. | K1_ZARZ_W27 | Deepened knowledge within the chosen specialty: - Enterprise Management (ZP)- Appendix no. 1 - Organisational Management (OM) – Appendix no. 2 | |

| No. | Symbols for effects of education for the major | EFFECTS OF EDUCATION First degree studies After graduating from first degree studies majoring in Management, a graduate will characterised by the following knowledge and abilities: | Polish Qualifications Framework |
|-----|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| | | SKILLS | |
| 1. | K1_ZARZ_U01 | Able to initiate business operations, selects organisational and legal forms, formulates organisational objectives and prepares actions designed to attain them efficiently. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 |

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| 2. | K1_ZARZ_U02 | Able to analyse and evaluate objectives, characteristics, elements, processes, functional areas in an organisation and internal and inter-organisational relations using basic notions and theoretical perspectives related to economic sciences. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 3. | K1_ZARZ_U03 | Ability to analyse the causes and dynamics of phenomena in an organisation and its environment. Able to identify and analyse typical management and practical problems in an organisation and in its functional areas. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 4. | K1_ZARZ_U04 | Able to select sources of information and use them in solving typical management and practical problems in an organisation and its functional areas. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 5. | K1_ZARZ_U05 | Able to use selected methods and tools (including mathematical, statistical, IT) to identify, analyse and solve typical management and practical problems in an organisation and its functional areas. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 6. | K1_ZARZ_U06 | Able to use normative systems and apply relevant norms and standards (legal, professional, moral) to specific activities in an organisation. | P6U_U P6S_UW P6S_UW3 |
| 7. | K1_ZARZ_U07 | Able to formulate alternative solutions to typical management and practical problems in an organisation and in its particular functional areas. Able to justify, select and verify solutions according to set priorities. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 |
| 8. | K1_ZARZ_U08 | Able to apply the principles and instruments of efficient planning and resource management in order to perform individual and team tasks. | P6U_U P6S_UW P6S_UW2 |
| 9. | K1_ZARZ_U09 | Able to prepare management plans for changes in an organisation and select methods of managing typical plans of changes in an organisation. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 10. | K1_ZARZ_U10 | Able to identify, interpret and evaluate behaviour of the members of an organisation and use typical techniques of influence on those behaviours. | P6U_U P6S_UW P6S_UW2 |
| 11. | K1_ZARZ_U11 | Able to use selected methods and techniques, as well as measures for evaluating and forecasting the results of operations in an organisation. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |

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| 12. | K1_ZARZ_U12 | Able to select and develop simple IT instruments for finding solutions to typical management and practical problems in an organisation and its particular functional areas | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 13. | K1_ZARZ_U13 | Applies theoretical knowledge from the field of physics in order to optimise working conditions, taking account of the material environment. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 14. | K1_ZARZ_U14 | Possesses elementary research skills making it possible to analyse examples of research, as well as conducting simple research in the field of management sciences; able to formulate conclusions, prepare and present results and indicate directions for further research. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 15. | K1_ZARZ_U15 | Able to use various Polish and foreign language sources of information on their own, particularly in professional literature. Able to integrate the information acquired and use it in order to deepen their specialist knowledge associated with the field of social sciences and the discipline of management sciences. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 P6S_UK P6S_UO P6S_UU |
| 16. | K1_ZARZ_U16 | Understands oral and written descriptions of general and scientific topics associated with the field of social sciences and the discipline of management sciences. Able to present statements (oral and written), participate in discussions and present their opinions in an international professional environment - in a foreign language. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 P6S_UK P6S_UO P6S_UU |
| 17. | K1_ZARZ_U17 | Possesses expanded skills within the chosen specialty: - Enterprise Management (ZP)- Appendix no. 1 - Organisational Management (OM) – Appendix no. 2 | |

| No. | Symbols for effects of education for the major | <p style="text-align: center;">EFFECTS OF EDUCATION First degree studies After graduating from first degree studies majoring in <i>Management</i>, a graduate will characterised by the following knowledge and abilities:</p> | <p style="text-align: center;">Polish Qualifications Framework</p> |
|---------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| SOCIAL COMPETENCES | | | |

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| 1. | K1_ZARZ_K01 | Aware of the need for unassisted development of their knowledge and professional skills within organisation and management sciences. Able to develop this knowledge and improve skills on their own. | P6U_K P6S_KK P6S_KR |
| 2. | K1_ZARZ_K02 | Able to cooperate and work in group and team forms of work organisation (assuming different roles in them). Able to organise the work of small teams and to manage them. | P6U_K P6S_KO P6S_KR |
| 3. | K1_ZARZ_K03 | Prepared to assume responsibility for entrusted tasks. Able to appropriately define priorities in their own work and in cooperation with others in connection with performing various organisational roles. | P6U_K P6S_KK P6S_KO P6S_KR |
| 4. | K1_ZARZ_K04 | Prepared to identify and analyse social problems in the workplace. Able to flexibly seek methods of solving them. | P6U_K P6S_KO P6S_KR |
| 5. | K1_ZARZ_K05 | Prepared to initiate changes at the workplace and participate in their planning and implementation. Able to think and act in an enterprising manner. | P6U_K P6S_KK P6S_KO |
| 6. | K1_ZARZ_K06 | Prepared to communicate, persuade and defend their views in order to achieve common goals. Prepared to behave in a professional and ethical manner. | P6U_K P6S_KK P6S_KO P6S_KR |
| 7. | K1_ZARZ_K07 | Is conscious of the need of individual and group activity which goes beyond the activities required in their studies | P6U_K P6S_KK P6S_KR |

EFFECTS OF EDUCATION FOR THE SPECIALISATION ENTERPRISE MANAGEMENT (ZP)

DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT

Study major: MANAGEMENT

Degree of the studies: FIRST DEGREE STUDIES

Specialization: BUSINESS MANAGEMENT (ZP)

| No. | Effects of education for the 1st degree of studies with specialty: ZP | EFFECTS OF EDUCATION First degree studies After graduating from first degree studies majoring in <i>Management, specialty: ZP</i> a graduate will be characterised by the following knowledge and abilities: | Polish Qualifications Framework |
|------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| KNOWLEDGE | | | |
| 1. | S1_ZARZ_ZP_W01 | Knows and explains the scope and type of information contained in the accounting books and financial statements of enterprises. Knows how to use and process them in order to make decisions at strategic, tactical and operational level. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 2. | S1_ZARZ_ZP_W02 | Possesses knowledge regarding various methods of project management and their advantages. Describes traditional and agile methods of project management within firms. | P6U_W P6S_WG P6S_WG1 |
| 3. | S1_ZARZ_ZP_W03 | Familiar with the notions, methods and tools of marketing research. Specialised knowledge of the marketing research process and management of this process in enterprises. Understands the role of marketing research in business management. Knows and understands the special character of relations and cooperation between researchers and managers. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |
| 4. | S1_ZARZ_ZP_W04 | Knows modern methods and tools of human resource management in enterprises: competence management, innovative ways of remuneration, personnel marketing and personnel control. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |

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| 5. | S1_ZARZ_ZP_W05 | Knows the idea and principles of TQM, as well as the procedures, processes and measures necessary to implement and improve a quality management system in an enterprise. Knows and understands the methods, techniques and tools of quality management. Knows about organisations certificating quality standards and standardised quality management systems. Knows the requirements of the quality management standard ISO 9001. Knows procedures for the auditing and certification of quality management systems in enterprises. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 6. | S1_ZARZ_ZP_W06 | Knows methods of conducting system analysis, including examining the needs of users. Knowledge of methods for improving processes, as well as planning IT systems supporting the management of an enterprise. | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 7. | S1_ZARZ_ZP_W07 | Knowledge concerning the functioning of a national economy and the regulations adopted therein (with regard to the market and the role of the state), in multinational associations and in the global economy. Knowledge of economic determinants of the functioning of an enterprise | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |
| 8. | S1_ZARZ_ZP_W08 | Deepened knowledge in at least two of the following fields of legal knowledge: protection of intellectual property, market consumer protection, forms and rules of the taxation of business operations, legal determinants of the labour market and the generation of employment. Knowledge of legal determinants of the functioning of an enterprise | P6U_W P6S_WG P6S_WG1 P6S_WK |
| 9. | S1_ZARZ_ZP_W09 | Basic knowledge of risk analysis in decision-making processes. Understands the meaning and knows basic methods of the identification, measurement and management of risk in financial institutions and other companies in conditions of uncertainty. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WK |
| 10. | S1_ZARZ_ZP_W10 | Knows diagnostic, prognostic, systemic and heuristic methodologies of organisational conduct, useful for solving problems with regard to existing and newly designed enterprises. | P6U_W P6S_WG P6S_WG1 P6S_WG2 P6S_WG3 P6S_WK |
| 11. | S1_ZARZ_ZP_W11 | Knowledge in at least two of the following fields: efficacy and effectiveness of team work, interpersonal communication, negotiations and conflict resolution in an enterprise. Knows the fundamental tools of social research. | P6U_W P6S_WG P6S_WG1 P6S_WG3 P6S_WK |

| No. | Effects of education for the 1st degree of studies with specialty: ZP | <p style="text-align: center;">EFFECTS OF EDUCATION First degree studies After graduating from first degree studies majoring in Management, specialty: ZP, a graduate will be characterised by the following knowledge and abilities:</p> | Polish Qualifications Framework |
|---------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| SKILLS | | | |
| 28. | S1_ZARZ_ZP_U01 | Able to appropriately process and use information from financial accounting in the decision-making process in an enterprise with regard to assortment, prices, suppliers, customers etc. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 29. | S1_ZARZ_ZP_U02 | Able to use elements of the traditional and agile methods in an enterprise as project team member. | P6U_U P6S_UW P6S_UW2 |
| 30. | S1_ZARZ_ZP_U03 | Able to design and conduct marketing research to solve decision-making processes in the management of an enterprise – of general scope and at basic level. Able to construct research tools. Ability to analyse qualitative and quantitative data. Able to formulate conclusions from marketing research in a manner appropriate to a decision-making problem. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 31. | S1_ZARZ_ZP_U04 | Able to use innovative methods and the tools of human resource management to solve typical practical HR problems in an enterprise. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 32. | S1_ZARZ_ZP_U05 | Able to identify and document the needs of IT system users, as well as identify problems regarding processing information in an enterprise and suggest relevant improvement measures. Able to build simple IT tools supporting decision-making processes in an enterprise. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 33. | S1_ZARZ_ZP_U06 | Able to use methods, techniques and tools of quality management to analyse and solve the problems of an enterprise. Able to interpret the requirements of the ISO 9001 standard and prepare plans for implementing quality management systems in an enterprise. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 34. | S1_ZARZ_ZP_U07 | Able to analyse the correctness and results of management and indicate appropriate tools for improving effectiveness throughout the national economy, the economics of multinational associations and the global economy and their effect on the functioning of enterprises on the domestic and the international market. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |

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| 35. | S1_ZARZ_ZP_U08 | Understands and is able to interpret existing legal regulations; able to prepare standard documents concerning at least two of the following fields of legal knowledge useful in an enterprise: protection of intellectual property, market consumer protection, forms and rules of the taxation of business operations, legal determinants of the labour market and the generation of employment. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 |
| 36. | S1_ZARZ_ZP_U09 | Identifies risk in decision-making processes in different areas of the financial system of an enterprise. Able to use basic methods of risk measurement and management in an enterprise. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 |
| 37. | S1_ZARZ_ZP_U10 | Able to diagnose the problems found in an enterprise, use effective methods of improving the organisation and functioning of an enterprise. | P6U_U P6S_UW P6S_UW1 P6S_UW2 |
| 38. | S1_ZARZ_ZP_U11 | Able to formulate and communicate messages in a simple and understandable manner. Able to effectively communicate with, persuade, and negotiate with other members of a group. Able to prevent conflicts and use techniques to solve them. Able to construct tools of social research. | P6U_U P6S_UW P6S_UW1 P6S_UW2 P6S_UW3 |