

## EFFECTS OF EDUCATION THE MAJOR

**DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT**

**Study major: MANAGEMENT**

**Degree of the studies: 2ND 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 of effects of education on the major:	<b>EFFECTS OF EDUCATION ON THE MAJOR</b> <b>2nd degree studies</b> <b>After graduation from 2nd degree studies, major:</b> <i>Management the graduate can be characterised with the following knowledge and abilities:</i>	<b>Reference to the description of the effects of education in the field of social sciences</b>
<b>KNOWLEDGE</b>			
1.	K2_ZARZ_W01	Extended knowledge of economic sciences and their place in the system of sciences and relationships with other social sciences.	S2A_W01
2.	K2_ZARZ_W02	Extended knowledge related to economic policy as an element of regulation of the economy – on national scale and international scale as well as scale of economic and integration associations. Knows premises, types, directions and effects of economic and legal evolution of markets, market structures and institutions as well as economic and integration associations.	S2A_W02 S2A_W07 S2A_W03 S2A_W08
3.	K2_ZARZ_W03	Understands the strategic context of functioning of an organisation. Explains the impact of global determinants (including legal and economic) on competitiveness of organisation as well as efficiency of its functioning. Familiar with the essence of the strategy of an organisation. Knowledge of the essence, stages and methods of strategic management.	S2A_W02 S2A_W03 S2A_W06 S2A_W07 S2A_W08 S2A_W11

4.	K2_ZARZ_W04	Deepened knowledge concerning the theory of organisation and management. Identifies different phases of organisational development. Extended knowledge of contemporary concepts of organisation.	S2A_W01 S2A_W02 S2A_W06 S2A_W08 S2A_W09
5.	K2_ZARZ_W05	Understands strategic importance of knowledge management in an organisation. Identifies determinants, processes and instruments of knowledge management in an organisation.	S2A_W10 S2A_W07 S2A_W05
6.	K2_ZARZ_W06	Understands complexity and complex nature of substantive and management problems in an organisation. Interprets interdependencies exceeding particular functions, processes and the organisation. Extended knowledge of information system of an organisation.	S2A_W02 S2A_W03
7.	K2_ZARZ_W07	Knows advanced methods of measurement and evaluation of achievements of an organization as a whole. Explains basics and meaning of restructuring processes: stabilising, development and repair in an organisation.	S2A_W02 S2A_W06 S2A_W08
8.	K2_ZARZ_W08	Extended knowledge with regard to methods and techniques used in management.	S2A_W06 S2A_W08
9.	K2_ZARZ_W09	Deepened and extended substantive knowledge regarding management in functional areas of an organisation related to the studied specialisation*).	S2A_W02 S2A_W03 S2A_W06
10.	K2_ZARZ_W10	Characterises, explains and interprets norms and standards (legal, organisational, professional, moral and ethical) relevant to functional areas of an organisation related to the studied specialisation*).	S2A_W07 S2A_W01
11.	K2_ZARZ_W11	Deepened knowledge of leadership, decision-making, motivating, group mechanisms and social impact realised in an organisation. Indicates the principles of counteracting negative individual and social phenomena in an organisation.	S2A_W01 S2A_W04 S2A_W05
12.	K2_ZARZ_W12	Extended knowledge of entrepreneurship. Indicates its determinants. Identifies factors encouraging individual and team effectiveness of enterprising behaviour.	S2A_W11 S2A_W05
13.	K2_ZARZ_W13	Knows the principles of construction of econometric and simulation models. Specialised knowledge concerning quantitative modeling and forecasting of states and processes in an organisation.	S2A_W06 T2A_W05
14.	K2_ZARZ_W14	Understands objectives, mechanisms of functioning and characteristics of integrated IT management systems.	S2A_W06 T2A_W05

15.	K2_ZARZ_W15	Achieves additional results in the KNOWLEDGE category for one of the following specialisations: 1) Enterprise Processes Management (App. 1) 2) Financial Engineering (App. 2.) 3) Information Technologies in Management (App. 3.) 4) Entrepreneurship, Innovations and Projects (App. 4.) 5) Managerial Behaviours and Decisions (App. 5.) 6) Business Information Systems (App. 6.)	
-----	-------------	---	--

No.	Symbols of effects of education on the major	<b>EFFECTS OF EDUCATION THE MAJOR 2nd degree studies After graduation from 2nd degree studies, major: <i>Management graduate:</i></b>	<b>Reference to the description of the effects of education in the field of social sciences</b>
<b>SKILLS</b>			
1.	K2_ZARZ_U01	Able to specify and analyse potential effects of introduced national and international economic and legal regulations for particular organisations, markets and integration associations. Able to use extended models of market structures to solve economic and management problems.	S2A_U01 S2A_U02 S2A_U03 S2A_U08
2.	K2_ZARZ_U02	Able to analyse the causes and dynamics of events and phenomena in an organisation as a whole, in the context of their internal and external determinants. Able to identify, analyse and evaluate complex management and substantive problems in an organisation.	S2A_U01 S2A_U02 S2A_U03 S2A_U08
3.	K2_ZARZ_U03	Able to select sources of information and use them in solving complex management and substantive problems in an organisation.	S2A_U02
4.	K2_ZARZ_U04	Able to select, justify and follow methods and techniques to identify, analyse and solve complex management and substantive problems in an organisation. Able to critically evaluate the usefulness of methods and techniques.	S2A_U02 S2A_U03
5.	K2_ZARZ_U05	Able to use specialist normative systems linked to the studied specialisation. Able to select, adapt, justify and follow appropriate norms and standards (legal, professional, moral and ethical) in specific activities in an organisation*).	S2A_U05

6.	K2_ZARZ_U06	Ability to formulate solutions for complex management and substantive problems in an organisation. Able to justify, select and verify solutions according to the agreed priorities in the context of internal and external conditions.	S2A_U01 S2A_U02 S2A_U03 S2A_U05 S2A_U06 S2A_U07
7.	K2_ZARZ_U07	Ability to design complex changes in an organisation.	S2A_U04 S2A_U06 S2A_U07
8.	K2_ZARZ_U08	Ability to design advanced methods of measurement and evaluation of achievements of an organization as a whole. Able to comprehensively assess an organisation according to the adopted goals, priorities and criteria and suggest directions of possible changes.	S2A_U01 S2A_U02 S2A_U05
9.	K2_ZARZ_U09	Able to perform strategic analysis of an organisation and its environment. Able to formulate alternative strategies at the level of an organisation and domains of its operations; analyses; critically assesses and selects proper strategy option. Able to select and assess strategic control instruments.	S2A_U01 S2A_U02 S2A_U03 S2A_U06 S2A_U07
10.	K2_ZARZ_U10	Able to use operational testing methods as a tool supporting advanced decision-making analyses.	S2A_U03 S2A_U02
11.	K2_ZARZ_U11	Able to build and use econometric and simulation models in solving complex management problems.	S2A_U04 S2A_U03
12.	K2_ZARZ_U12	Ability to use of quantitative methods including advanced econometric and simulation methods to describe and forecast processes and results of activities of an organisation.	S2A_U03 S2A_U04
13.	K2_ZARZ_U13	Able to prepare elements of IT introduction strategy for an organisation; assesses, selects prepares integrated IT management systems for implementation. Able to use advanced IT systems supporting management in an organisation and in its functional areas related to the studied specialisation *).	S2A_U04 S2A_U07
14.	K2_ZARZ_U14	Advanced research skills: formulates simple hypotheses and research problems, selects adequate research methods, techniques and tools, prepares, presents and interprets research findings, draws conclusions, indicates directions of further research with regard to management sciences.	S2A_U02 S2A_U03 S2A_U08
15.	K2_ZARZ_U15	Sufficiently fluent in specialist language and able to use specialist language in all language activities to communicate in the professional environment in detailed issues from the field of management sciences - in Polish and a foreign language (1).	S2A_U11

16.	K2_ZARZ_U16	Understands Polish and foreign (1) texts related to management, able to interpret them, draw conclusions, acquire necessary information, interpretation it and critically assess it, read and understand professional literature, business and organisational documentation.	S2A_U09 S2A_U11
17.	K2_ZARZ_U17	Able to prepare a well-documented study (e.g. a short scientific report showing the author's own scientific research findings) or present descriptions of detailed issues with regard to management sciences in Polish and a foreign language (1).	S2A_U10 S2A_U11
18.	K2_ZARZ_U18	Able to formulate and exhaustively justify opinions, conduct presentations of problems regarding management sciences, topics related to work environment as well as participate in scientific and professional discussions - in Polish and a foreign language (1).	S1A_U11
19.	K2_ZARZ_U19	Speaks in a foreign language (2) good enough for a native speaker to understand and uses foreign language in matters relating to the specific needs of everyday life, both in written and spoken form.	
20.	K2_ZARZ_U20	Basic skills in a foreign language (2): understands simple spoken and read texts, able to initiate social contacts, speaks in a coherent manner on a known subject, able to write an e-mail, a postcard or a note.	
21.	K2_ZARZ_U21	Distinguishes and applies the formal and the informal variety of foreign language to a limited extent (2) uses basic socio-cultural knowledge in communication in a given a foreign language (2).	
22.	K2_ZARZ_U22	Achieves additional results in the SKILLS category for one of the following specialisations: 1) Enterprise Processes Management (App. 1) 2) Financial Engineering (App. 2.) 3) Information Technologies in Management (App. 3.) 4) Entrepreneurship, Innovations and Projects (App. 4.) 5) Managerial Behaviours and Decisions (App. 5.) 6) Business Information Systems (App. 6.)	

No.	Symbols of effects of education on the major	<b>EFFECTS OF EDUCATION THE MAJOR 2nd degree studies After graduation from 2nd degree studies, major: <i>Management</i> graduate:</b>	<b>Reference to the description of the effects of education in the field of social sciences</b>
<b>SOCIAL COMPETENCES</b>			
1.	K2_ZARZ_K01	Aware of the need of independent, critical evaluation of the scope and of the level of their professional knowledge and skills, both in terms of organisation and management sciences as well as in the interdisciplinary aspect. Prepared to search for fields of knowledge to supplement and skills to improve unassisted. Able to inspire and organise the process of learning of other people.	S2A_K01 S2A_K06

2.	K2_ZARZ_K02	Able to cooperate and work in group and team forms of work organisation (assuming different roles in them). Shows readiness to organise and manage the work of teams unassisted.	S2A_K02
3.	K2_ZARZ_K03	Able to properly define priorities in own work and in cooperation with others in connection with performing various organisational roles.	S2A_K03 S2A_K04
4.	K2_ZARZ_K04	Shows readiness to identify, critically analyse and resolve problems arising at the workplace. Able to anticipate the effects of made decisions.	S2A_K04 S2A_K05
5.	K2_ZARZ_K05	Shows readiness to unassisted to conduct flexible searches and use critical selection of methods and tools in solving problems arising at the workplace.	S2A_K04 S2A_K07
6.	K2_ZARZ_K06	Prepared to initiate changes in the organisation and participate in their planning and implementation. Able to anticipate multi-directional effects of introduced changes. Able to think and act in an enterprising manner.	S2A_K07 S2A_K05
7.	K2_ZARZ_K07	Prepared to assume responsibility for entrusted tasks within designated organisational roles. Characterised by responsibility for own preparation for work, made decisions and taken actions as well as their results.	S2A_K07 S2A_K05
8.	K2_ZARZ_K08	Presents courage in conveying and defending their views. Prepared to persuade and negotiate in order to achieve common goals.	S2A_K03 S2A_K04
9.	K2_ZARZ_K09	Prepared to behave in a professional and ethical manner; notices and formulates ethical dilemmas related to their own and someone else's work; looks for proper solutions and opportunities of correction of irregularities of their attitude and behaviour at the workplace.	S2A_K04

\*) Specialties:

- 1) Enterprise Processes Management
- 2) Financial Engineering
- 3) Information Technologies in Management
- 4) Entrepreneurship, Innovations and Projects
- 5) Managerial Behaviours and Decisions
- 6) Business Information Systems

# EFFECTS OF EDUCATION FOR THE SPECIALISATION

## Enterprise Processes Management (ZPP)

**DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT**

**Study major: MANAGEMENT**

**Degree of the studies: 2ND DEGREE STUDIES**

**Specialization: ENTERPRISE PROCESSES MANAGEMENT**

No.	Effects of education at 2nd degree of the studies for specialty: ZPP	<b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b> <b>2nd degree studies</b> <b>After graduation from 2nd degree studies, major: <i>Management</i></b> <b>Specialty: <i>Enterprise Processes Management</i></b> <b>the graduate can be characterised with the following knowledge and abilities:</b>	Reference to the description of the effects of education in the field of social sciences
<b>KNOWLEDGE</b>			
1.	S2_ZPP_W01	Deepened knowledge of selected types of corporate finance (in particular of large, small and medium, international, high-tech and network enterprises) – their types, characteristics and terms of functioning on the global economic market.	S2A_W02
2.	S2_ZPP_W02	Deepened knowledge with regard to analysis of conditions affecting the activities of selected types enterprises.	S2A_W03
3.	S2_ZPP_W03	Knows and understands important challenges for marketing activities of contemporary enterprises. Deepened knowledge of selected innovative processes, methods, concepts, decisions and marketing activities as well as market orientation of an enterprise. Deepened knowledge related to management of relations with customers (CRM).	S2A_W04 S2A_W06 S2A_W07 S2A_W08
4.	S2_ZPP_W04	Deepened knowledge concerning organisation of operational processes of enterprises as well as methods and tools diagnosing and designing them.	S2A_W06 S2A_W07
5.	S2_ZPP_W05	Deepened knowledge of utilisation, analysis and designing of modern systems and strategies of management of logistic processes in an enterprise and supply chains.	S2A_W06 S2A_W07
6.	S2_ZPP_W06	Deepened knowledge of processes of designing, implementation, functioning, maintenance and improvement of quality management systems in enterprises, including integrated systems (quality, environment, occupational safety, security of information); knows the issues of standardisation and evaluation of compliance of goods and systems.	S2A_W06 S2A_W07
7.	S2_ZPP_W07	Understands the essence of research and development processes and their strategic importance. Deepened knowledge with regard to processes in research and development activities in selected types of enterprises.	S2A_W10 S2A_W11

8.	S2_ZPP_W08	Deepened knowledge of the essence of management of changes, used methods and tools of management of changes, designing changes and management of changes in selected types of enterprises.	S2A_W08
9.	S2_ZPP_W09	Knows and understands important notions from the field of project management. Deepened knowledge of project management areas and particular project management phases. Understands significant differences between the most important PM methodologies in the context of their application in selected types of enterprises.	S2A_W08
10.	S2_ZPP_W10	Deepened knowledge of construction of efficient teams, their organisation and functioning. Knowledge of innovative methods of management of human resources.	S2A_W08 S2A_W09
11.	S2_ZPP_W11	Knowledge of financial aspects of implementation of processes; knows methods of management of financial resources of an enterprise in the context of the process approach. Knows advanced methodology of process controlling.	S2A_W06 S2A_W07

No.	Effects of education at 2nd degree of the studies for specialty: ZPP	<p style="text-align: center;"><b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b>  <b>2nd degree studies</b>  <b>After graduation from 2nd degree studies, major: <i>Management</i></b>  <b>Specialty: <i>Enterprise Processes Management</i></b>  <b>the graduate can be characterised with the following knowledge and abilities:</b></p>	Reference to the description of the effects of education in the field of social sciences
<b>SKILLS</b>			
1.	S2_ZPP_U01	Identifies basic processes in selected types of enterprises. Defines objectives in the context of major goals and strategies of an enterprise. Analyses; assesses and designs processes of an enterprise. Selects process management methods and techniques. Designs systems of evaluation of businesses processes and their results.	S2A_U08 S2A_U02 S2A_U03 S2A_U05
2.	S2_ZPP_U02	In-depth skills in making decisions concerning selected marketing problems and processes. In-depth skills in customer relationship management (CRM). Able to integrate and critically refer to possessed knowledge to practical application of marketing management of an enterprise.	S2A_U07 S2A_U05 S2A_U06 S2A_U01 S2A_U02 S2A_U03
3.	S2_ZPP_U03	Able to analyse and evaluate the existing logistic management strategies and systems in an enterprise and supply chains as well as design their improvements focused on increasing the efficiency and effectiveness of logistic processes.	S2A_U01 S2A_U02 S2A_U03



4.	S2_ZPP_U04	Able to analyse and evaluate quality management systems in enterprises as well as design and improve them, interpret the requirements of system standards, carry out assessment of compliance of products and management systems, use quality improvement methods and techniques in practice.	S2A_U01 S2A_U02 S2A_U03 S2A_U07
5.	S2_ZPP_U05	Able to establish and verify objectives as well as priorities in selected types of enterprises; able to plan, prepare, conduct, control and adjust the course of projects implemented in the form of projects; able to; able to identify emergency situations in projects and solve them.	S2A_U01 S2A_U02 S2A_U03 S2A_U04 S2A_U05 S2A_U06
6.	S2_ZPP_U06	Able to select appropriate intervention method as well as manage the process of changes in an enterprise.	S2A_U01 S2A_U02 S2A_U03 S2A_U04
7.	S2_ZPP_U07	Ability to identify and solve management problems going beyond a single function, process and enterprise.	S2A_U07 S2A_U01 S2A_U02 S2A_U03 S2A_U05 S2A_U06
8.	S2_ZPP_U08	Able to build a team in an organisation and ensure its efficient functioning. Diagnoses problems in team work and finds ways to solve them. Able to select and use innovative methods of human resource management, including properly build effective communication among team members, customers and managers.	S2A_U01 S2A_U02 S2A_U03 S2A_U04
9.	S2_ZPP_U09	Able to analyse the costs of activities, analyse and interpret the effectiveness of processes in an enterprise. Able to use advanced organisational and instrumental solutions of process controlling.	S2A_U01 S2A_U02 S2A_U05

## EFFECTS OF EDUCATION FOR THE SPECIALISATION Financial Engineering (IZF)

**DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT**

**Study major: MANAGEMENT**

**Degree of the studies: 2ND DEGREE STUDIES**

**Specialization: FINANCIAL ENGINEERING**

No.	Effects of education at 2nd degree of the studies for IF specialisation	<b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b> <b>2nd degree studies</b> <b>After graduation from 2nd degree studies, major: <i>Management</i></b> <b>Specialty: <i>Financial Engineering</i></b> <b>the graduate can be characterised with the following knowledge and abilities:</b>	Reference to the description of the effects of education in the field of social sciences
<b>KNOWLEDGE</b>			
1.	S2_IZF_W01	Explains the essence and dynamics of market financial system. Characterises its elements and interdependencies between them.	S2A_W01 S2A_W02 S2A_W03 S2A_W05
2.	S2_IZF_W02	Knows and explains determinants of defining public tasks and spending public funds as well as measure of assessment of realisation of the public budget. Knowledge of factors of imbalance of public finance, planning and reporting on national and international scale.	S2A_W01 S2A_W03 S2A_W05
3.	S2_IZF_W03	Knows the theory of audit and economic inspection. Describes Polish and international accounting and financial reporting standards as well as standards of economic inspection and auditing procedures.	S2A_W05
4.	S2_IZF_W04	Knows specialist, advanced statistical, analytical and simulation methods and tools of shaping analytical competences and supporting decision-making processes as well as measurement and maximisation of efficiency.	S2A_W06 S2A_W05
5.	S2_IZF_W05	Knows the principles of operation of the capital market, its tools and instruments of acquisition and location of capital. Extended knowledge of methods of analysis used for valuation of capital, defining investor's income rate and identification of investment strategy.	S2A_W06 S2A_W05
6.	S2_IZF_W06	Deepened knowledge of risk associated with economic decision-making processes in an organisation. Understands the meaning and knows methods to identify, measure and manage risk in financial institutions and an enterprise in uncertain situations.	S2A_W06 S2A_W05

7.	S2_IZF_W07	Knows methodology and advanced tools of economic-financial analysis. Knows how to identify sources of information used in analysis in different areas of organisation's operations.	S2A_W06 S2A_W05
8.	S2_IZF_W08	Knows contemporary concepts and methods of measurement of value of an organisation and determinants of shaping the value. Explains relations between value and capital.	S2A_W06 S2A_W05

No.	Effects of education at 2nd degree of the studies for IF specialisation	<p style="text-align: center;"><b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b>  <b>2nd degree studies</b>  <b>After graduation from 2nd degree studies, major: <i>Management</i></b>  <b>Specialty: <i>Financial Engineering</i></b>  <b>the graduate can be characterised with the following knowledge and abilities:</b></p>	Reference to the description of the effects of education in the field of social sciences
<b>SKILLS</b>			
1.	S2_IZF_U01	Interprets and analyses interdependencies between elements of market financial system and justifies the essence of its functioning.	S2A_U01 S2A_U02
2.	S2_IZF_U02	Interprets and analyses interdependencies between elements of public financial system. Able to carry out comparative analysis and assess financial phenomena of the public finance sector at the local, regional and macroeconomic level.	S2A_U02 S2A_U03 S2A_U04 S2A_U08
3.	S2_IZF_U03	Able to prepare and conduct an audit and economic inspection of various areas of an organisation.	S1A_U07 S2A_U03 S2A_U05
4.	S2_IZF_U04	Uses advanced methodology and tools of economic-financial analysis, manages sources of information and combines techniques of analysis in different areas of financial system of an organisation.	S2A_U01 S2A_U02 S2A_W06 S2A_W05
5.	S2_IZF_U05	Uses tools and instruments of acquisition and location of capital on the capital market. Able to carry out analyses used for valuation, defining income rate as well as identification of investment strategy.	S2A_U07 S2A_U02 S2A_U06 S2A_U05
6.	S2_IZF_U06	Identifies risk in decision-making processes in different areas of an organisation. Able to use methods of measurement and management of risk using various types of financial engineering tools. Able to conduct profitability analysis of an investment.	S2A_U06 S2A_U05

7.	S2_IZF_U07	Analyses and interprets the course of complex business processes in an organisation; able to identify their determinants. Shapes and forecasts economic processes in an organisation.	S2A_W01 S2A_U06 S2A_U10
8.	S2_IZF_U08	Performs value measurement of organisation as well as is able to identify determinants of its shaping. Interprets relations between value and capital.	S2A_U02 S2A_U03 S2A_U06 S2A_U05

## EFFECTS OF EDUCATION FOR THE SPECIALISATION Information Technologies in Management (TIZ)

**DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT**

**Study major: MANAGEMENT**

**Degree of the studies: 2ND DEGREE STUDIES**

**Specialization: INFORMATION TECHNOLOGIES IN MANAGEMENT**

No.	Effects of education at 2nd degree of the studies for specialty: TIZ	<b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b> <b>2nd degree studies</b> <b>After graduation from 2nd degree studies, major: <i>Management</i></b> <b>Specialty: <i>Information Technologies in Management</i></b> <b>the graduate can be characterised with the following knowledge and abilities:</b>	Reference to the description of the effects of education in the field of social and technical sciences
<b>KNOWLEDGE</b>			
1.	S2_TIZ_W01	Understands the principles of operation of computer networks. Knows specialist network technologies and advanced Internet applications used in management practice.	S2A_W06 T2A_W05

2.	S2_TIZ_W02	Knows methods of data analysis and ways of representation of knowledge. Knows specialist applications of advanced methods statistical as well as IT tools used for collection, analysis and presentation of data. Knows the principles of construction and using expert systems; deepened knowledge of utilisation of database systems.	S2A_W06
3.	S2_TIZ_W03	Knows specialist methods and tools supporting decision-making processes. Deepened knowledge of methods of decision-making in variable or uncertain environment. Knows advanced methods of and tools of identification and modeling of decision-making process and conducting advanced analyses of decision-making processes for particular sections of organisation's operations.	S2A_W02 S2A_W03 S2A_W06 S2A_W07 X2A_W03
4.	S2_TIZ_W04	Knows specialist integrated management systems, e-economy systems as well as financial and accounting systems. Knows basic rules of implementation of integrated management systems in organisations. Knows advanced methods of and tools of modeling processes business and identification of requirements for IT management systems.	S2A_W06 T2A_W05 X2A_W04

No.	Effects of education at 2nd degree of the studies for specialty: TIZ	<p style="text-align: center;"><b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b>  <b>2nd degree studies</b>  <b>After graduation from 2nd degree studies, major: <i>Management</i></b>  <b>Specialty: <i>Information Technologies in Management</i></b>  <b>the graduate can be characterised with the following knowledge and abilities:</b></p>	Reference to the description of the effects of education in the field of social, hard and technical sciences
<b>SKILLS</b>			
1.	S2_TIZ_U01	Able to create simple internet applications and use advanced internet applications in management practice. Able to implement internet applications in organisations.	S2A_U06
2.	S2_TIZ_U02	Able to critically select data and methods of analysing them. Able to analyse data using modern tools. Able to draw correct conclusions from available data as well as prepare forecasts on their basis. Able to acquire information from database systems	S2A_U01 S2A_U02 S2A_U04

3.	S2_TIZ_U03	Able to formulate a decision-making problem and identify its main elements. Able to select proper methods and IT tools to solve a decision-making problem. Able to solve a decision-making problem and interpret the received solution. Able to analyse the causes and the course of decision-making processes.	S2A_U01 S2A_U02 S2A_U03 S2A_U04 S2A_U06 S2A_U07 S2A_U08 T2A_U08
4.	S2_TIZ_U04	Able to use integrated management systems and financial accounting systems in management practice. Able to shape the course of complex business processes. Able to identify business processes with modern notations and tools. Able to build object-oriented business models for purposes of formulation of requirements for IT systems. Able to assess the quality of IT product.	S2A_U06

## EFFECTS OF EDUCATION FOR THE SPECIALISATION Entrepreneurship, Innovations and Projects (PIP)

**DEPARTMENT OF COMPUTER SCIENCE AND MANAGEMENT**

**Study major: MANAGEMENT**

**Degree of the studies: 2ND DEGREE STUDIES**

**Specialization: ENTREPRENEURSHIP, INNOVATIONS AND PROJECTS**

No.	Effects of education at 2nd degree of the studies for specialty: PIP	<b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b> <b>2nd degree studies</b> <b>After graduation from 2nd degree studies, major: <i>Management</i></b> <b>Specialty: <i>Entrepreneurship, Innovations and Projects</i></b> <b>the graduate can be characterised with the following knowledge and abilities:</b>	Reference to the description of the effects of education in the field of social sciences
<b>KNOWLEDGE</b>			
1.	S2_PIP_W01	Deepened knowledge of changes in organisations and their environment as well as methods of management of changes.	S2A_W08 S2A_W07
2.	S2_PIP_W02	Knows and understands the essence of the concept and models of process management. Identifies problems of process management in an organisation. Knows methods of designing, analysing, modeling, evaluation and improvement of processes of an organisation.	S2A_W01 S2A_W02
3.	S2_PIP_W03	Deepened knowledge of entrepreneurship, especially: strategic, academic and social. Knowledge of psychological and social determinants and manifestations of individual entrepreneurship. Knows elements of business plan for various forms of business, including for projects characterised by high risk, such as: spin-off and spin-out.	S2A_W01 S2A_W11
4.	S2_PIP_W04	Deepened knowledge in the field of innovations. Knows and is able to describe innovative processes occurring in an organisation and instruments supporting such activities. Understands the notions of scientific-research cycle, life cycle of products and the issues of vertical and horizontal flow of innovations; Able to define the notions of internal and external entrepreneurship. Able to distinguish the notions of entrepreneurship and innovativeness. Understands the meaning of knowledge for innovative processes and entrepreneurship. Knows practices associated with application of innovations.	S2A_W01 S2A_W11
5.	S2_PIP_W05	Knows mechanisms and methods of stimulation and support for creativity and innovativeness of individuals, groups and organisations.	S2A_W01 S2A_W11

6.	S2_PIP_W06	Deepened knowledge with regard to structures and institutions supporting the development of innovations and entrepreneurship.	S2A_W02 S2A_W03 S2A_W09
7.	S2_PIP_W07	Deepened knowledge related to protection of industrial property and copyright and management of protected knowledge.	S2A_W10
8.	S2_PIP_W08	Understands the essence, principles and instruments of corporate social responsibility and points to its signs in practice.	S2A_W07
9.	S2_PIP_W09	Knows advanced methods of project management.	S2A_W06
10.	S2_PIP_W10	Advanced knowledge of methods and tools supporting designing, evaluation and implementation of innovative, especially in conditions of risk and uncertainty and in variable environment.	S2A_W06
11.	S2_PIP_W11	Knowledge of construction of project teams, their organisation as well as functioning. Knows factors and methods affecting effectiveness and efficacy of work of teams.	S2A_W04 S2A_W05 S2A_W08 S2A_W10

No.	Effects of education at 2nd degree of the studies for specialty: PIP	<p style="text-align: center;"><b>EFFECTS OF EDUCATION FOR THE SPECIALISATION</b>  <b>2nd degree studies</b>  <b>After graduation from 2nd degree studies, major: <i>Management</i></b>  <b>Specialty: <i>Entrepreneurship, Innovations and Projects</i></b>  <b>the graduate can be characterised with the following knowledge and abilities:</b></p>	Reference to the description of the effects of education in the field of social sciences
<b>SKILLS</b>			
1.	S2_PIP_U01	Able to interpret and explain economic and social phenomena as well as their impact on innovation of an organisation, taking account of ethical, legal and social standards.	S2A_U05 S2A_U08
2.	S2_PIP_U02	Able to independently identify and evaluate possibilities of improvement in the quality in an organisation and introduce innovative solutions.	S2A_U02 S2A_U03 S2A_U06
3.	S2_PIP_U03	Able to creatively analyse a specific organisational problem and formulate different options of solution of the problem; able to verify it by making simple research hypotheses with regard to their effects.	S2A_U07



4.	S2_PIP_U04	Able to use advanced methods of project management in all phases of various types of projects: start-up of business operations, introduction of changes, implementation of innovations etc.	S2A_U02 S2A_U03 S2A_U04 S2A_U06 S2A_U07
5.	S2_PIP_U05	Able to specify institutional sources of support with regard to innovation and entrepreneurship and prepare a programme of using them.	S2A_U02 S2A_U03 S2A_U05 S2A_U06
6.	S2_PIP_U06	Able to analyse and assess knowledge and innovation management methods applied in an organisation and suggest new ones.	S2A_U01 S2A_U02
7.	S2_PIP_U07	Able to choose and use advanced methods and techniques supporting decision-making and IT tools to prepare and analyse innovative organisational solutions in terms of effectiveness and quality.	S2A_U04 S2A_U06
8.	S2_PIP_U08	Able to identify, analyse and evaluate psychological and social mechanisms affecting work in project teams. Able to plan and arrange team works.	S2A_U05 S2A_U07
9.	S2_PIP_U09	Able to consider the issues of quality in all taken decisions and applied methods.	S2A_U01 S2A_U03 S2A_U05 S2A_U08