# PROGRAM OF STUDIES

FACULTY: MANAGEMENT

MAIN FIELD OF STUDY: MANAGEMENT

BRANCH OF SCIENCE: SOCIAL SCIENCES

DISCIPLINES: D1 MANAGEMENT AND QUALITY SCIENCES (major discipline)

EDUCATION LEVEL: second-level studies

FORM OF STUDIES: full-time studies

PROFILE: general academic LANGUAGE OF STUDY:

POLISH: specialization Zarządzanie Finansami; Przedsiębiorczość, Innowacje i Projekty; Technologie Informacyjne w Zarządzaniu; Zarządzanie Procesami Przedsiębiorstwa; Zachowania i Decyzje Menedżerskie ENGLISH: specialization Human Resource Management

#### Content:

- 1. Assumed learning outcomes attachment no. 1 to the program of studies
- 2. Program of studies description attachment no.2 to the program of studies
- 3. Plan of studies attachment no. 3 to the program of studies

Resolution no. ... of the Senate of Wroclaw University of Science and Technology

In effect since 2023/2024

#### ASSUMED LEARNING OUTCOMES

**FACULTY:** MANAGEMENT

**MAIN FIELD OF STUDY:** MANAGEMENT

**EDUCATION LEVEL:** second-level studies

**PROFILE:** general academic

#### Location of the main-field-of study:

Branch of science: Social Sciences

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

Management and Quality Sciences

#### Explanation of the markings:

P6U – universal first degree characteristics corresponding to education at the first-level studies - 6 PRK level \*

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

P6S – second degree characteristics corresponding to education at the first-level studies - 6 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

<sup>\*</sup> delete as applicable

		Reference to PRK characteristics							
Main field of study	Description of learning outcomes for the main-field-of study	Universal first	Second degree characteristics typical for qualifications obtained in higher education (S)						
learning outcomes	MANAGEMENT After completion of studies, the graduate:	degree characteristics (U)	Characteristics for qualifications on 6/7* levels of PRK	Characteristics for qualifications on 6 and 7 levels of PRK, enabling acquiring engineering competences					
	KNOWLEDGE	(W)							
K2_ZARZ_W01	Extended knowledge of economic sciences and their place in the system of sciences and relationships with other social sciences.	P7U_W	P7S_WG P7S_WK						
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.	P7U_W	P7S_WG P7S_WK						
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.	P7U_W	P7S_WG P7S_WK						
K2_ZARZ_W04	Deepened knowledge concerning the theory of organisation and management. Identifies different phases of organisational development. Extended knowledge of contemporary concepts of organization.	P7U_W	P7S_WG P7S_WK						

K2_ZARZ_W05	Understands strategic importance of knowledge management in an organisation. Identifies determinants, processes and instruments of knowledge management in an organisation. Knows and understands the rules of intellectual property protection (industrial and copyright protection).	P7U_W	P7S_WG P7S_WK	
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.	P7U_W	P7S_WG P7S_WK	
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.	P7U_W	P7S_WG P7S_WK	
K2_ZARZ_W08	Extended knowledge with regard to methods and techniques used in management.	P7U_W	P7S_WG P7S_WK	
K2_ZARZ_W09	Deepened and extended substantive knowledge regarding management in functional areas of an organization related to the studied specialisation*).	P7U_W	P7S_WG P7S_WK	
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*).	P7U_W	P7S_WG P7S_WK	
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.	P7U_W	P7S_WG P7S_WK	
K2_ZARZ_W12	Extended knowledge of entrepreneurship. Indicates its determinants. Identifies factors encouraging individual and team effectiveness of enterprising behaviour. Knows the rules of creating and developing various forms of entrepreneurship.	P7U_W	P7S_WG P7S_WK	

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.	P7U_W	P7S_WG	
K2_ZARZ_W14	Understands objectives, mechanisms of functioning and characteristics of integrated IT management systems.	P7U_W	P7S_WG	
K2_ZARZ_W15	Knows basic rules of physics, explains the impact of material work environment on the encumbrance of an employee.	P7U_W	P7S_WG P7S_WK	
K2_ZARZ_W16	Knows and understands the basic dilemmas of modern civilization.	P7U_W	P7S_WK	
K2_ZARZ_W17	Knows advanced methods, techniques and tools for solving managerial problems.	P7U_W	P7S_WG P7S_WK	
	SKILLS (U)			
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.	P7U_U	P7S_UW	
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.	P7U_U	P7S_UW	
K2_ZARZ_U03	Able to select sources of information and use them in solving complex management and substantive problems in an organisation.	P7U_U	P7S_UW	
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.	P7U_U	P7S_UW	
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,	P7U_U	P7S_UW	

	professional, moral and ethical) in specific activities			
	in an organisation*).			
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.	P7U_U	P7S_UW	
K2_ZARZ_U07	Ability to design complex changes in an organisation.	P7U_U	P7S_UW	
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.	P7U_U	P7S_UW	
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.	P7U_U	P7S_UW	
K2_ZARZ_U10	Able to use operational testing methods as a tool supporting advanced decision-making analyses.	P7U_U	P7S_UW	
K2_ZARZ_U11	Able to build and use econometric and simulation models in solving complex management problems.	P7U_U	P7S_UW	
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.	P7U_U	P7S_UW	
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 *).	P7U_U	P7S_UW	

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.	P7U_U	P7S_UW P7S_UU	
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).	P7U_U	P7S_UW P7S_UK P7S_UO P7S_UU	
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.	P7U_U	P7S_UW P7S_UK P7S_UO P7S_UU	
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).	P7U_U	P7S_UW P7S_UK P7S_UO P7S_UU	
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).	P7U_U	P7S_UK	
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.	P7U_U	P7S_UK	
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.	P7U_U	P7S_UK	

			T	1
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).	P7U_U	P7S_UK	
K2_ZARZ_U22	Can cooperate and work in group and team forms of work organization (assuming different roles in them). Demonstrates readiness to independently organize and manage the work of teams.	P7U_U	P7S_UO	
K2_ZARZ_U23	Can use advanced methods, techniques and tools for solving managerial problems	P7U_U	P7S_UW	
	SOCIAL COMPETER	NCES (K)		
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.	P7U_K	P7S_KK P7S_KR	
K2_ZARZ_K02	Understands the impact of professional work on the improvement of the social environment. Initiates activities aimed at improving the welfare of the society.	P7U_K	P7S_KR	
K2_ZARZ_K03	Able to properly define priorities in own work and in cooperation with others in connection with performing various organisational roles.	P7U_K	P7S_KK P7S_KR	
K2_ZARZ_K04	Shows readiness to identify, critically analyse and resolve problems arising at the workplace. Able to anticipate the effects of made decisions.	P7U_K	P7S_KK P7S_KO P7S_KR	
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.	P7U_K	P7S_KO P7S_KR	
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	P7U_K	P7S_KK P7S_KO	

	changes. Able to think and act in an enterprising			
	manner.			
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.	P7U_K	P7S_KK P7S_KO	
K2_ZARZ_K08	Presents courage in conveying and defending their views. Prepared to persuade and negotiate in order to achieve common goals.	P7U_K	P7S_KK P7S_KR	
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.	P7U_K	P7S_KR	

<sup>\*</sup>delete as applicable

# **DESCRIPTION OF THE PROGRAM OF STUDIES**

Main field of study Management Profile general academic

**Level of studies** second **Form of studies** full-time studies

# 1. General description

1.1 Number of semesters: 4	1.2 Total number of ECTS points necessary to complete studies at a given level: <b>120</b>
1.3 Total number of hours: 1125	1.4 Prerequisites (particularly for second-level studies):  First-cycle studies completed According to the resolution No. 151/11/2020-2024 of PWr Senate from 17 June 2021 and resolution No. 26/22/2020-2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains	1.6 Graduate profile. employability:
professional degree of: magister	The graduate of the studies has advanced specialist knowledge in the field of management sciences in the area of: quantitative models and methods integrated information systems. and above all. modern concepts and methods of management. planning and monitoring of the company's performance as well as the functioning development and strategic renewal of the organization. Graduates are capable of abstract thinking and critical understanding of knowledge. enabling them to identify describe analyze and interpret complex processes and problems of the organization and its environment. Has the ability to integrate knowledge from various fields (economics, psychology, law) and use IT and mathematical tools in

order to make a comprehensive diagnosis of the situation and create innovative solutions to problems in the work environment.

Graduates are prepared to work as independent entrepreneurs. managers. specialists and consultants by developing advanced skills of identifying formulating and solving problems in conditions of complexity and uncertainty of the environment. combined with the ability to select analytical methods and tools.

Graduate understands key theories and concepts in finance and has knowledge of financial markets. portfolio management. corporate finance. stock market analysis. complex financial products such as derivatives as well as behavioral finance. He/she understands how markets work and how companies can create value. Has the skills to use and critically evaluate models and formal processes in finance and financial management. He/she is qualified to undertake rigorous and independent research in the field of finance. Has in-depth knowledge. interpersonal and analytical skills necessary to succeed in a rapidly changing and highly complex environment. Thanks to the theoretical and practical preparation. has all the advantages to obtain a competitive advantage and successfully pursue a selected career path in industry, state institutions, universities and research institutions.

# 1.7 Possibility of continuing studies:

# eligibility to apply for admission to a doctoral school. non-degree postgraduate programmes

# 1.8 Indicate connection with University's mission and its development strategy:

Education in the field of Management is conducted in the field of social sciences, but it is directly part of the mission and strategy of a technical university. Management graduates acquire business, analytical, social and technical competences.

The education program is in line with the University's mission and strategy in the field of:

- Shaping creative. critical and tolerant graduates by emphasizing the development of appropriate skills and attitudes;
- Striving for high-quality education and creating conditions for free discussion and criticism with respect for truth for students of Management and teaching staff;
- Cultivate the values and traditions of comprehensive cooperation with the University's stakeholders, through the participation of Management students in scientific conferences and the Erasmus program, and

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- cooperation with employers through practical forms of classes implemented in the form of projects in specific institutions;
- Striving to obtain a worthy place in the field of training specialists in the field of management among domestic and foreign universities. by emphasizing the professionalism and hard skills of graduates. According to the principle adopted at Wrocław University of Science and Technology. studies in the field of Management have a general academic profile. The curriculum meets all the requirements resulting from applicable law. including the Polish Qualifications Framework in the field of social sciences.

The education program at the Management faculty is unique. Like the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates the natural - in economic practice - complementarity of technical and economic education, enriched with an IT module.

The regional roots of the University mean that the educational program in the field of Management creates conditions and forces students to systematically contact various organizations throughout the teaching process.

The quality of education in the didactic offer at the Faculty is systematically improved. This is achieved thanks to the scientific development of employees and their teaching competences. as well as thanks to the systematic expansion of the Faculty's infrastructure. including the modernization of rooms as well as teaching and laboratory aids. as well as software updates.

The education program implemented at the second degree of studies in the field of Management includes a set of effects and the corresponding substantive content of education. enabling graduates to effectively compete on the labor market. Students are prepared to continue their studies at the third degree and to conduct their own research. Graduates are also aware of the need to constantly act for their own professional development in cooperation with their home university.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study: W (knowledge) =17. U (skills) = 23. K (competences) = 9. W + U + K = 49
  - 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

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D1 (major) ....... (this number must be greater than half the total number of learning outcomes)
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D2 .....

D3 .....

D4 .....

2.3 For the main field of study assigned to more than one discipline - percentage share of the number of ECTS points for each discipline:

D1 .....% ECTS points

D2 .....% ECTS points

**D3** .....% ECTS points

**D4 .....% ECTS points** 

- 2.4a. For the general academic profile of the main field of study the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned DN (must be greater than 50% of the total number of ECTS points from 1.2) 117 ECTS
- 2.4b. For the practical profile of the main field of study the number of ECTS points assigned to the classes shaping practical skills (must be greater than 50% of the total number of ECTS points from 1.2)
- 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

The assumed learning outcomes for second-cycle studies correspond to the following requirements set for employees by employers on the labor market:

- Employees' understanding of the strategic perspective of the company's operation. in particular the assessment and shaping of its competitiveness and value (employers medium and large enterprises);
- Independence of employees. but also the ability to fulfill various roles in the team in terms of diagnosing. proposing solutions and implementing them in the functional areas of the enterprise adequately to the completed specialization (employers medium and large enterprises):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- Inspiring and selecting as well as implementing modern management methods and techniques as well as selected IT tools;
- Ability to learn and share knowledge with others. as well as creativity and openness to innovation.

The education program in the field of Management at second-cycle studies and many years of experience of the teaching staff create the conditions for graduates to achieve the assumed learning outcomes and meet the above-mentioned requirements formulated by employers.

2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU¹ code) 60.9 ECTS

#### 2.7. Total number of ECTS points. which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	16
Number of ECTS points for optional subjects	0
Total number of ECTS points	16

**2.8. Total number of ECTS points. which student has to obtain from practical classes. including project and laboratory classes** (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	21
Number of ECTS points for optional subjects	51
Total number of ECTS points	72

# 2.9. Minimum number of ECTS points. which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O)

3 ECTS points

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# 2.10. Total number of ECTS points. which student may obtain doing optional blocks (min. 30% of total number of ECTS points) 66 ECTS points

#### 3. Description of the process leading to learning outcomes acquisition:

The process leading to the achievement of the assumed learning outcomes includes active participation in classes organized at the university in a traditional and remote form: lectures, exercises, laboratories, projects and seminars, as well as independent studies allowing for consolidation, supplementation and extension of knowledge. The curriculum implemented in the field of study creates conditions and forces students to systematically contact various organizations throughout the teaching process. If necessary, the student may take advantage of individual consultations.

## 4. List of education blocks:

# 4.1. List of obligatory blocks:

# 4.1.1 List of general education blocks

**4.1.1.1** *Liberal-managerial subjects* block (min. ..... ECTS points):

No.	Course/	Name of course/group of courses	Weekly number of hours				Learning effect	Number of hours		Number of ECTS points			Form <sup>2</sup> of		Course/group of courses				
	group of courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

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**4.1.1.2** Foreign languages block (min. ...... ECTS points):

No.	Course/	Name of course/group of courses		Veekly	numbe	er of ho	ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	•	Total																	

**4.1.1.3** *Sporting classes* block (0 ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	•	Total																	

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# Altogether for general education blocks

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

#### 4.1.2 List of basic sciences blocks

#### 4.1.2.1 Mathematics block

No.	Course/ group of	Name of course/group of courses (denote	W		ly nu hou		er	Y		ber of ours	Numbe	r of ECTS	points	Form <sup>2</sup> of	W 3 C	C	ourse/grou	p of course	es
	courses code	group of courses with symbol <b>GK</b> )	le	с	1	p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/g roup of courses	Way <sup>3</sup> of crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0037W	Operations Research	1					K2_ZARZ_W13	15	90	3	3	0.7	T/Z	E		DN		PD
2	W08ZZZ- SM0037L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		PD

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4	W08ZZZ- SM0039P	Economteric Modelling and Forecasting				1		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U01 K2_ZARZ_U22 K2_ZARZ_U22 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	PD
5	W08ZZZ- SM0034W	Statistics and Econometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Z	DN		PD
6	W08ZZZ- SM0034L	Statistics and Econometrics			1			K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K09	15	60	2	2	0.7	T/Z	Z	DN	P	PD
L		Total	4	0	3	1	0		120	420	14	14	5.6					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 4.1.2.2 Physics block

No.	Course/ group of		V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	up of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0029W	Work Environment Physics II	1					K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z		DN		PD
		Total	1	0	0	0	0		15	60	2	2							

4.1.2.3 Chemistry block

No.	Course/ group of	N. C. (1)	V	Veekly	numbo	er of ho	ours	Learning effect	Num ho	per of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	0	3	1	0	135	480	16	16	6.3

# 4.1.3 List of the main field of study blocks

## 4.1.3.1 Obligatory main field of study blocks

No.	Course/ group of		Wee	-	num urs		of	Y		nber of ours	Numbe	r of ECTS	points	Form <sup>2</sup> of		C	Course/grou	ip of course	ès
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	С	1	p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/g roup of courses	Way <sup>3</sup> of credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management Concepts	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ- SM0030P	Management Concepts				1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z		DN	Р	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ- SM0030S W08ZZZ- SM0038W	Management Concepts  Controlling	1			1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_W04 K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W06 K2_ZARZ_W07	15	30	2	2	0.7	T/Z	z	DN DN	P	K
5	W08ZZZ- SM0038P	Controlling			1		K2_ZARZ_W08  K2_ZARZ_U03  K2_ZARZ_U04  K2_ZARZ_U06  K2_ZARZ_U07  K2_ZARZ_U07  K2_ZARZ_U15  K2_ZARZ_U15  K2_ZARZ_U16  K2_ZARZ_U17  K2_ZARZ_U18  K2_ZARZ_U18  K2_ZARZ_U22  K2_ZARZ_U2  K2_ZARZ_W05  K2_ZARZ_W05  K2_ZARZ_W06  K2_ZARZ_K06  K2_ZARZ_K07  K2_ZARZ_K08  K2_ZARZ_K08  K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	K
6	W08ZZZ- SM0031W	Simulation modeling	1				K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		K
7	W08ZZZ- SM0031L	Simulation modeling		1	I		K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	Р	K
8	W08ZZZ- SM0032W	Management psychology	1				K2_ZARZ_W11 K2_ZARZ_W10 K2_ZARZ_W12 K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

9	W08ZZZ- SM0032S	Management psychology				1	K2_ZARZ_U07 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	К
10	W08ZZZ- SM0033W	Managerial accounting	1				K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	30	1	1	0.7	T/Z	Z	DN		K
11	W08ZZZ- SM0033C	Managerial accounting		1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
12	W08ZZZ- SM0035W	Strategic Management	2				K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W07	30	90	3	3	1.4	T/Z	Е	DN		K
13	W08ZZZ- SM0035P	Strategic Management			1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U08 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	Р	К
14	W08ZZZ- SM0035S	Strategic Management				1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U08 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	Р	К
15	W08ZZZ- SM0043W	Value Based Management	1				K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	Е	DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

16	W08ZZZ- SM0043P	Value Based Management				1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	Р	K
17	W08ZZZ- SM0036W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	60	2	2	1.4	T/Z	Z	DN		K
18	W08ZZZ- SM0036L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	Р	K
		Total	11	1	2	4	3		315	960	32	32	14.7					

**Altogether (for main field of study blocks):** 

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	1	2	4	3	315	960	32	32	14.7

# **4.2** List of optional blocks

# 4.2.1 List of general education blocks

**4.2.1.1 Liberal-managerial subjects blocks** (min. ..... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Learning effect symbol	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/ group	Way <sup>3</sup> of credi- ting	Course/group of courses
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	of course s	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total															

## **4.2.1.2** Foreign languages block (min. 3 ECTS points):

No.	Course/ group of		W		ly n		ber	,		nber of ours	Numbe	er of ECTS	5 points	Form <sup>2</sup> of		C	Course/grou	p of course	ès
	courses	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	с	1	p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/g roup of courses	Way <sup>3</sup> of credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	Т	Z	0		Р	КО
2	SJO- SM0002	Foreign language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	Т	Z	О		P	КО
		Total	0	4	0	0	) (		60	90	3		2.0						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

**4.2.1.3 Sporting classes block** (0. ECTS points):

No.	Course/ group of		V	Veekly	numbe	er of ho	ours	Learning effect	Num ho	oer of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**4.2.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of a supply and a supply of a supply	V	Veekly	numbo	er of ho	ours	Learning effect	Num ho	ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# Altogether for general education blocks:

Total number of hours	Total number of ZZU	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

					hours				
lec	cl	lab	pr	sem					
0	4	0	0	0	60	90	3	0	2.0

## 4.2.2 List of basic sciences blocks

**4.2.2.1** *Mathematics* block (min. .... ECTS points):

No.	Course/ group of		V	Veekly	numbe	er of ho	ours	Learning effect	Num ho	ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**4.2.2.2** *Physics* block (min. .... ECTS points):

No.	Course/		V	Weekly number of hours  Le				Learning effect	Numl	per of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total								·									

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

**4.2.2.3** *Chemistry* block (min. .... ECTS points):

No.	Course/ group of		V	Veekly	numb	er of h	ours	Learning effect		ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/	Way <sup>3</sup>		Course/gro	oup of cours	ses
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	group of course s	of credi- ting	Unive rsity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

## 4.2.3 List of blocks

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

**4.2.3.1 Block** (*min. 3 ECTS points*):

	Course/		W		ly ni hou	umb ırs	er		h	nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of	Way <sup>3</sup> of	C	ourse/grou	ip of course	es
Lp.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	c	l	p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/g roup of courses	credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	P	S
2	W08ZZZ- SM0042S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S
		Total	0	0	0	0	2		30	90	3	3	1.4						

Altogether for blocks:

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	0	0	0	2	30	90	3	3	1.4

# 4.2.4 List of specialization blocks

### **4.2.4.1** *Specialization subjects (e.g. whole specialization)* blocks (min. 60 ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

 $<sup>^3</sup>$ Exam - enter E, crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/		Wee	-	num		of			nber of ours	Numbe	er of ECTS	points			C	Course/grou	p of course	es
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	С	1	p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	Form <sup>2</sup> of course/g roup of courses	Way <sup>3</sup> of credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities 5	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0046W	Audit and Revision of Commerce	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0046P	Audit and Revision of Commerce				1		K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	Р	S
3	W08ZZZ- SM0047W	Budgeting	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0047P	Budgeting				1		K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0055W	Public Finance	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
6	W08ZZZ- SM0055P	Public Finance				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z		DN	Р	S
7	W08ZZZ- SM0051W	Strategic controlling	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ- SM0051C	Strategic controlling		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	S
9	W08ZZZ- SM0052W	Methods and tools for financial analysis	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

10	W08ZZZ- SM0052L	Methods and tools for financial analysis			2		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K09	30	60	2	2	1.4	T/Z	Z	DN	Р	s
11	W08ZZZ- SM0053W	The appraisal of investment projects (Project Finance)	1				K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
12	W08ZZZ- SM0053C	The appraisal of investment projects (Project Finance)		1			K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	S
13	W08ZZZ- SM0041D	MSc Thesis I				2	K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W17 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	180	6	6	3.0	T/Z	Z	DN	P	S
14	W08ZZZ- SM0045D	MSc Thesis II				2	K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W17 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K09	30	540	18	18	9.0	T/Z	Z	DN	Р	S
15	W08ZZZ- SM0056W	Reporting and valuation of intellectual assets	2				K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Z	DN		S
16	W08ZZZ- SM0056C	Reporting and valuation of intellectual assets		1			K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	S
17	W08ZZZ- SM0048W	Capital Market I	2				K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е	DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

18	W08ZZZ- SM0048C	Capital Market I		1				K2_ZARZ_U23 K2_ZARZ_K05	15	30	1	1	0.7	T/Z	Z	DN	Р	S
19	W08ZZZ- SM0057L	Capital Market II			2			K2_ZARZ_U23 K2_ZARZ_K01	30	90	3	3	1.4	T/Z	Z	DN	P	S
20	W08ZZZ- SM0049W	Market financial system - insurance	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
22	W08ZZZ- SM0049C	Market financial system - insurance		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	S
22	W08ZZZ- SM0050W	Computer Supported Financial Reporting	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
23	W08ZZZ- SM0050L	Computer Supported Financial Reporting			1			K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	S
24	W08ZZZ- SM0054W	Risk Management	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
25	W08ZZZ- SM0054S	Risk Management					1	K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	P	S
		Total	15	5	5	7	1		495	1800	60	60	32.3					

#### **4.2.4.2 Legal and economic block** (min. 4 ECTS points):

No.	Course/			-	num ours	ber		Numbe	r of hours	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/grou	p of course	es
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	c I	l p	s	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/g roup of courses	Way <sup>3</sup> of credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	ZZZ- SM2PIP01B PE-21Z	Legal and economic block	2	2	0	0	0	K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W17 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_U23 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8					
1	W08ZZZ- SM0091W	International Economic Transaction	1						15	30	1	1	0.7	T/Z	Z	DN		S
2	W08ZZZ- SM0091C	International Economic Transaction		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
3	W08ZZZ- SM0092W	Legal and Economic conditions for business in the market of the European Union	1						15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ- SM0092C	Legal and Economic conditions for business in the market of the European Union		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
5	W08ZZZ- SM0093W	Agreement in trade	1						15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0093C	Agreement in trade		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	2	2	0	0	0		60	120	4	4	2.8					

## **4.2.4.3** *Psycho-sociological block* (min. .2... pkt ECTS):

No. Course/ group of	None of course / course of course / done to course	W	eekly of l	y nur hours			Learning		nber of ours	Numbe	er of ECTS	S points	Form <sup>2</sup> of	Way <sup>3</sup> of	C	Course/grou	ıp of course	es
courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	с	1	р	s	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	credi- ting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	ZZZ- SM300001 BPS-21Z	Psycho-sociological block	1	0	0	0	1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_W17 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K02 K2_ZARZ_K02	30	60	2	2	1.4					
1	W08ZZZ- SM0101W	Organizational communication	1						15	30	1	1	0.7	T/Z	Z	DN		S
2	W08ZZZ- SM0101S	Organizational communication					1		15	30	1	1	0.7	T/Z	Z	DN	P	S
3	W08ZZZ- SM0102W	Psychology of decision and risk	1						15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ- SM0102S	Psychology of decision and risk					1		15	30	1	1	0.7	T/Z	Z	DN	P	S
5	W08ZZZ- SM0103W	Economic psychology	1						15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0103S	Economic psychology					1		15	30	1	1	0.7	T/Z	Z	DN	P	S
7	W08ZZZ- SM0104W	Cognitive psychology	1						15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ- SM0104S	Cognitive psychology					1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
9	W08ZZZ- SM0113W	Creativity and entrepreneurship psychology	1						15	30	1	1	0.7	T/Z	Z	DN		S
10	W08ZZZ- SM0113S	Creativity and entrepreneurship psychology					1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
11	W08ZZZ- SM0105W	Problem resolving in Organization	1						15	30	1	1	0.7	T/Z	Z	DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

12	W08ZZZ- SM0105S	Problem resolving in Organization					1	15	30	1	1	0.7	T/Z	Z	DN	Р	S
13	W08ZZZ- SM0106W	Team management	1					15	30	1	1	0.7	T/Z	Z	DN		S
14	W08ZZZ- SM0106S	Team management					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	1	0	0	0	1	30	60	2	2	1.4					

#### Altogether for specialization blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
18	7	5	7	2	585	1980	66	66	36.5

## 4.3 Training block - concerning principles of training crediting - attachment no. ...

### Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training					
Number of ECTS points	Number of ECTS points for BU <sup>1</sup> classes		Training crediting mode	Code	
Training duration		Training objective			

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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## 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

Type of diploma dissertation	Licencjat / inżynier / magister / magister inżynier*				
Number of diploma dissertation semesters	Number of ECTS points	Code			
3	1 2 6 18	W08ZZZ-SM0040S W08ZZZ-SM0042S W08ZZZ-SM0041D W08ZZZ-SM0045D	Seminar I Seminar II MSc Thesis I MSc Thesis II		
Character of diploma dissertation					
Literature survey. project. computer program. etc.					
Number of BU <sup>1</sup> ECTS points	BU = 13.4; ECTS = 27				

# 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	Exam or test - single or multiple choice knowledge test; open-ended questions
class	Colloquium (knowledge test and / or open-ended questions); Written studies in the form of reports - literature studies and case studies. diagnostic and / or project reports - empirical research in real organizations. opinions of representatives of these organizations; Oral presentations using modern means of communication
laboratory	Report on completed tasks. knowledge test

 $<sup>^{1}</sup>BU$  – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes  $^{2}Traditional$  – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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project	Written report documenting the diagnostic and design solution. presentation of the project and its defense.
seminar	Choice - problem formulation - topic; Activity in discussions; in discussion. Written study in the form of a scientific report. essay. "mini" monograph. Oral presentations using modern means of communication
diploma dissertation	A written study in accordance with the applicable requirements for diploma theses. assessed by the tutor and reviewer on the appropriate review form.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# 6. Range of diploma examination

- 1. Theories of regulation and their connection with classical schools of thought in economics.
- 2. Determinants of economic growth and development in Keynesian and neoliberal economy.
- 3. The influence of competition policy and industrial policy on the company's activities on the EU market.
- 4. Pan-European organizational and legal forms of running a business.
- 5. Economic and legal tools and economic effects of breaking up monopolies.
- 6. Methods of strategic analysis of the organization's environment and the organization's potential.
- 7. The essence of strategic management. Schools of thought and trends in strategic management.
- 8. Institutional and financial instruments supporting the competitiveness and innovation of enterprises in the EU.
- 9. Forms of internationalization of the company's activity.
- 10. Organizational growth and development model.
- 11. Features of an intelligent organization
- 12. Knowledge management in an organization goals. functions. models and instruments examples.
- 13. Knowledge management strategies.
- 14. Institutional and non-institutional forms of intellectual property protection.
- 15. Methods and application of cost calculation.
- 16. Value of the enterprise methods of calculation.
- 17. Strategic and operational controlling instruments.
- 18. Integrated Scorecard as a method of monitoring the achievement of strategic goals.
- 19. Roles and tasks of the budgeting process in the enterprise.
- 20. Characterize the measures of creating value added.
- 21. Methods of measuring and evaluating the achievements of the organization as a whole and in relation to its individual parts (centers of responsibility).
- 22. Management by objectives idea. stages. and conditions.
- 23. Contemporary and classical structural solutions of the management concepts- similarities and differences.
- 24. The essence. concepts and organizational solutions of controlling.
- 25. VBM Value Based Management.

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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- 26. Psychological contract as a determinant of organizational culture.
- 27. The subject and scope of unfair commercial practices.
- 28. The importance of the code of good practice in the relationship between economic organization and consumer.
- 29. The essence of leadership in an organization. Leadership concepts and styles.
- 30. Conflict management; the concept of conflict. sources and types of conflicts in the organization. methods of solving interpersonal and intergroup conflicts.
- 31. The decision-making process. individual and situational determinants.
- 32. The influence of motivation on human behavior in the context of achieving the goals of the group and organization.
- 33. Instruments of intra-organizational entrepreneurship.
- 34. Psychological aspects of resistance to changes and ways of overcoming them.
- 35. Factors favoring and blocking the processes of creative thinking. Creative problem solving techniques.
- 36. Methods of operational research purpose and scope of applications in management examples
- 37. The importance of the level of significance in testing statistical hypotheses.
- 38. Components of time series. Forecasting methods based on time series.
- 39. Simulation methods. The course of the simulation process. Objectives of simulation studies examples of applications.
- 40. Typical strategies of management informatization on the example of an industrial enterprise.
- 41. Market financial system functions and elements.
- 42. Interdependencies of the market financial system elements the essence of its operation.
- 43. Basic elements of the public financial system. relations between them and relations with the financial market system.
- 44. Factors of the current and long-term imbalance of public finances.
- 45. Systems for Calculating Macroeconomic Measures types of international reporting documents.
- 46. Audit the essence. goals and types in various areas of the organization.
- 47. Polish and international accounting and financial reporting standards.
- 48. The essence of economic audit. Audit objectives and procedures.
- 49. Methods and tools for measuring the effectiveness of the organization's activities.
- 50. The ways of using analytical and simulation methods in decision-making processes in the organization.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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- 51. Operation of the capital market. its principles and instruments.
- 52. Ways of acquiring and locating capital on the market.
- 53. Methods of capital valuation and calculation of the investor's rate of return.
- 54. The concepts and types of risk in the processes of making economic decisions in the organization.
- 55. Methods of identifying. measuring and managing risk in the company's operations.
- 56. Methodology and tools of economic and financial analysis.
- 57. Sources of information used in economic and financial analysis.
- 58. Contemporary concepts of organizational values.
- 59. Determinants of shaping the value of the organization.
- 60. Methods used for valuing an organization.

## 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

No.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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## 8. Plan of studies (attachment no. 3)

Approved by faculty student government legislative body:

28.12.2922

name and surname. signature of student representative

28.60.2022

Woter man regelii

Date

Date

Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU - number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# **PLAN OF STUDIES**

FACULTY: MANAGEMENT

MAIN FIELD OF STUDY: MANAGEMENT

**EDUCATION LEVEL:** second-level studies

FORM OF STUDIES: full-time studies

**PROFILE:** general academic

SPECIALIZATION: Zarządzanie finansami (ZF)

**LANGUAGE OF STUDY: Polish** 

In effect since 2023/2024

<sup>\*</sup>delete as applicable

# **Plan of studies structure (optionally)**

# 1) in ECTS point layout

23	]			
22		Operations Research		
21	Work Environment Physics II	150 5	Value Based Management	
20	60 2	E CANADA IE C	Value Based Management 150 5	
19	Simulation Modeling 120 4	Economteric Modelling and Forecasting 120 4	Foreign language I	-
18	Managerial Accounting	Controlling	30 1	1
17	90 3	120 4	Foreign language II 60 2	
16	Management Psychology		50 2	
15	60 2	Legal and economic block	Psycho-sociological block	
14		120 4	60 2	
13	Management Concepts		Strategic controlling	
12	180 6	Computer Supported Financial Reporting	60 2	
11		60 2		
10			Methods and tools for financial analysis	Capital Market (2)
9	Statistics and Econometrics 150 5	Capital Market (1) 120 4	150 5	90 3
8				
7		Budgeting	The appraisal of investment projects (Project Finance)	Public Finance 120 4
6	Integrated Management Information Systems 90 3	60 2	60 2	
5		Audit and Revision of Commerce	Risk Management	
4		60 2	90 3	Reporting and valuation of intellectual assets 150 5
3	Strategic Management	Market financial system - insurance	MSc Thesis I	
2	150 5	60 2	180 6	MSc Thesis II
1		Seminar I 30 1	Seminar II 60 2	540 18
	I	II	III	IV

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# 2) in hourly layout

Г	$\neg$		1	
23				
22		Operations Research 10200 E		
21	Work Environment Physics II 10000	10200 E	Value Based Management	
20	Simulation modeling	Economteric Modelling and Forecasting	10010 E	
19	10100	10010	Foreign language I O1OOO	
18	Managerial Accounting	Controlling		
17	11000	10010	Foreign language II O3OOO	
16	Management Psychology		03000	
15	10001	Legal and Economic block	Psycho-sociological block	
14		22000	10001	
13	Management Concepts		Strategic Controlling	
12	20011 E	Computer Supported Financial	11000	
11	7	Reporting 10100		
10			Methods and tools for financial analysis	Capital Market (2)
9	Statistics and Econometrics 20100	Capital Market (1) 21000 E	20200 E	00200
8	7			
7	Integrated Management Information	Budgeting	The appraisal of investment projects	Public Finance 20010
6	Systems	10010	(Project Finance) 11000	
5	20100	Audit and Revision of Commerce	Risk Management	Reporting and valuation of intellectual
4		10010	10001	assets
3	Strategic Management	Market financial system - insurance	MSc Thesis I	21000
2	20011 E	11000	[2]	MSc Thesis II
1		Seminar I OOOO1	Seminar II OOOO1	[2]
	I	П	III	IV

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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# 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

# Semester 1

# **Obligatory courses / groups of courses**

# Number of ECTS points ...30

No.	Course/	Name of course/group of courses (denote group of courses with	We	ekly n	umber	of hou	rs	Learning effect	Num ho	ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of		Course/group	of courses	
	courses	symbol <b>GK</b> )	le	с	1	p	s	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediti ng	Universi ty-wide <sup>4</sup>	Concerning scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management Concepts	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ- SM0030P	Management Concepts				1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z		DN	P	K
3	W08ZZZ- SM0030S	Management Concepts					1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	K
4	W08ZZZ- SM0031W	Simulation Modeling	1					K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		K
5	W08ZZZ- SM0031L	Simulation Modeling			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	K

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

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6	W08ZZZ- SM0032W	Management Psychology	1			K2_ZARZ_W11 K2_ZARZ_W10 K2_ZARZ_W12 K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		К
7	W08ZZZ- SM0032S	Management Psychology				K2_ZARZ_U07 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	К
8	W08ZZZ- SM0033W	Managerial Accounting	1			K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	30	1	1	0.7	T/Z	Z	DN		K
9	W08ZZZ- SM0033C	Managerial Accounting		1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
10	W08ZZZ- SM0034W	Statistics and Econometrics	2			K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Z	DN		PD
11	W08ZZZ- SM0034L	Statistics and Econometrics			1	K2_ZARZ_U03 K2_ZARZ_U10 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K04 K2_ZARZ_K04 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	Р	PD
12	W08ZZZ- SM0036W	Integrated Management Information Systems	2			K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	60	2	2	1.4	T/Z	Z	DN		K
13	W08ZZZ- SM0036L	Integrated Management Information Systems			1	K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	K
14	W08ZZZ- SM0029W	Work Environment Physics II	1			K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z	DN		PD
15	W08ZZZ- SM0035W	Strategic Management	2			K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W07	30	90	3	3	1.4	T/Z	Е	DN		K

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16	W08ZZZ- SM0035P	Strategic Management				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	Р	К
17	W08ZZZ- SM0035S	Strategic Management					1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	K
	•	Total	12	1	3	2	3	•	315	900	30	30	14.7					

Optional courses / groups of courses (minimum ..... hours in semester, ...... ECTS points)

No	Course/	Name of course/group of courses	V	Veekly	numb	er of h	ours	Learning	Numb hou		Numbe	er of ECTS	5 points	Form <sup>2</sup> of		Со	urse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	•	Total																	

**Altogether in semester** 

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

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<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

12	1	3	2	3	315	900	30	30	14.7

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Semester 2

# Obligatory courses / groups of courses

# Number of ECTS points ...25.....

No.	Course/	Name of course/group of courses	Wee	•	numb ours	er of			mber of nours	Numbe	er of ECTS	S points	F2 - F		C	Course/grou	ıp of course	es
	group of courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	le	c	1	p	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	Form <sup>2</sup> of course/g roup of courses	Way <sup>3</sup> of crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities 5	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0046W	Audit and Revision of Commerce	1				K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0046P	Audit and Revision of Commerce				1	K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0037W	Operations Research	1				K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е		DN		PD
4	W08ZZZ- SM0037L	Operations Research			2		K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
5	W08ZZZ- SM0047W	Budgeting	1				K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ- SM0047P	Budgeting				1	K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	Р	S
7	W08ZZZ- SM0038W	Controlling	1				K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

8	W08ZZZ- SM0038P	Controlling			1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U07 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07	15	60	2	2	0.7	T/Z	z	DN	P	К
9	W08ZZZ- SM0050W	Computer Supported Financial Reporting	1			K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
10	W08ZZZ- SM0050L	Computer Supported Financial Reporting			1	K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	S
11	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1			K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		PD
12	W08ZZZ- SM0039P	Economteric Modelling and Forecasting			1	K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U15 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_U22 K2_ZARZ_U22 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	Р	PD
13	W08ZZZ- SM0048W	Capital Market I	2			K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е	DN		S
14	W08ZZZ- SM0048C	Capital Market I		1		K2_ZARZ_U23 K2_ZARZ_K05	15	30	1	1	0.7	T/Z	Z	DN	Р	S
15	W08ZZZ- SM0049W	Market financial system - insurance	1			K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
16	W08ZZZ- SM0049C	Market financial system - insurance		1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	S	S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total	9	2	3	4	1	270	750	25	25	12.6				

# Optional courses / groups of courses (minimum ...75... hours in semester, ...5.... ECTS points)

No.	Course/	Name of course/group of courses (denote	Wee	effec			Learning		mber of nours	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	Course/grou	p of course	es	
	group of courses code	group of courses with symbol <b>GK</b> )	le	с	1	p	s	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	S	S
2	ZZZ- SM2PIP01BP E-21Z	Legal and Economic block	2	2				K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W17 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_U23 K2_ZARZ_U23 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8	T/Z	Z		DN		S
	W08ZZZ- SM0091W	International Economic Transaction	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0091C	International Economic Transaction		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0092W	Legal and Economic conditions for business in the market of the European Union	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0092C	Legal and Economic conditions for business in the market of the European Union		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0093W	Agreement in trade	1						15	30	1	1	0.7	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

08ZZZ- M0093C	Agreement in trade		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
	Total	2	2	0	0	0	75	150	5	5	3.5					

## Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	4	3	4	1	345	900	30	30	16.1

# Semester 3

# **Obligatory courses / groups of courses**

# Number of ECTS points ...17..

No.	Course/	Name of course/group of courses (denote		ekly of h		ber	Learning		ber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		C	Course/grou	p of course	es
	group of courses code	group of courses with symbol $\mathbf{G}\mathbf{K}$ )	l e	c 1	l p	s	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0051W	Strategic Controlling	1				K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0051C	Strategic Controlling		1			K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

 $<sup>^3</sup>$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ- SM0052W	Methods and tools for financial analysis	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е	DN		S
4	W08ZZZ- SM0052L	Methods and tools for financial analysis			2			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07	30	60	2	2	1.4	T/Z	Z	DN	P	S
5	W08ZZZ- SM0053W	The appraisal of investment projects (Project Finance)	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0053C	The appraisal of investment projects (Project Finance)		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	S
7	W08ZZZ- SM0054W	Risk Management	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ- SM0054S	Risk Management					1	K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	P	S
9	W08ZZZ- SM0043W	Value Based Management	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	Е	DN		K
10	W08ZZZ- SM0043P	Value Based Management				1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
		Total	6	2	2	3	2		180	510	17	17	8.4					

# Optional courses / groups of courses (minimum ...135... hours in semester. ...13.... ECTS points)

No. Course/	Weekly number of hours	Learning effect symbol	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way³ of crediting	Course/group of courses
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le	c	1 p	s		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes			Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO-SM0001	Foreign language I		1			K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	T/Z	Z	0		Р	КО
2	SJO-SM0002	Foreign language II		3			K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	T/Z	Z	О		P	КО
3	W08ZZZ- SM0041D	MSc Thesis I			2		K2 ZARZ_W06 K2 ZARZ_W09 K2 ZARZ_W10 K2 ZARZ_W17 K2 ZARZ_U03 K2 ZARZ_U04 K2 ZARZ_U04 K2 ZARZ_U14 K2 ZARZ_U14 K2 ZARZ_U15 K2 ZARZ_U17 K2 ZARZ_U17 K2 ZARZ_U17 K2 ZARZ_K01 K2 ZARZ_K01	30	180	6	6	3.0	T/Z	Z		DN	Р	s
4	W08ZZZ- SM0042S	Seminar II				1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S
5	ZZZ- SM300001BPS -21Z	Psycho-sociological block	1			1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_W17 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K02 K2_ZARZ_K02	30	60	2	2	1.4	T/Z	Z		DN		s
	W08ZZZ- SM0101W	Organizational Communication	1					15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0101S	Organizational Communication				1		15	30	1	1	0.7	T/Z	Z		DN	Р	S
	W08ZZZ- SM0102W	Psychology of decision and risk	1					15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0102S	Psychology of decision and risk				1		15	30	1	1	0.7	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

W08ZZZ- SM0103W	Economic Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0103S	Economic Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	Р	S
W08ZZZ- SM0104W	Cognitive Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0104S	Cognitive Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ- SM0113W	Creativity And Entrepreneurship Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0113S	Creativity And Entrepreneurship Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ- SM0105W	Problem Resolving In Organization	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0105S	Problem Resolving In Organization					1	15	30	1	1	0.7	T/Z	Z	DN	Р	S
W08ZZZ- SM0106W	Team Management	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0106S	Team Management					1	15	30	1	1	0.7	T/Z	Z	DN	Р	S
<u> </u>	Total	1	4	0	2	2	135	390	13	10	7.1					

# **Altogether in semester**

Total number of hours	Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

lec	cl	lab	pr	sem					
7	6	2	3	3	315	900	30	27	15.5

# Semester 4

# **Obligatory courses / groups of courses**

# Number of ECTS points ...12.....

No.	Course/	Name of course/group of courses (denote	Wee	-	num		of	Learning		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of		(	Course/grou	p of course	S
	group of courses code	group of courses with symbol <b>GK</b> )	le	c	1	p	s	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0055W	Public Finance	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
2	W08ZZZ- SM0055P	Public Finance				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0056W	Reporting and valuation of intellectual assets	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Z		DN		S
4	W08ZZZ- SM0056C	Reporting and valuation of intellectual assets		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0057L	Capital Market II			2			K2_ZARZ_U23 K2_ZARZ_K01	30	90	3	3	1.4	T/Z	Z		DN	P	S
		Total	4	1	2	1	0		120	360	12	12	5.6						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# Optional courses / groups of courses (minimum ...30... hours in semester. ...18.... ECTS points)

No.	Course/ group of	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	We	-	nun	nber	of	Learning effect symbol		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/ group of course s	Way <sup>3</sup> of crediting	(	Course/grou	p of courses	
	courses code	g	le	с	1	p	s		ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes			Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0045D	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W10 K2_ZARZ_W17 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_K01 K2_ZARZ_K01	30	540	18	18	9.0	T/Z	Z		DN	Р	S
		Total	0	0	0	2	0		30	540	18	18	9.0						

# Altogether in semester

	Total 1	number o			Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
4	1	2	3	0	150	900	30	30	14.6

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

 $<sup>^3</sup>$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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# 2. Set of examinations in semestral arrangement

Course / group of courses code	~ ·	Semester
W08ZZZ-0030W	Management Concepts	1
W08ZZZ-0035W	Strategic Management	1
W08ZZZM0037W	Operations Research	2
W08ZZZ-0048W	Capital Market I	2
W08ZZZ-0052W	Methods and tools for financial analysis	3
W08ZZZ-0043W	Value Based Management	3

# 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	11
2	16
3	9
4	0

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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Opinion of student government legislative body

28.19.2912

Name and surname. signature of student representative

28.10.2000

dr.hab, inż. Katar vna Tworek, pror. uczelni

Date

Date

Dean's signature

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# DESCRIPTION OF THE PROGRAM OF STUDIES

Main field of study Management Profile general academic

Level of studies second Form of studies full-time studies

# 1. General description

1.1 Number of semesters: 4	1.2 Total number of ECTS points necessary to complete studies at a given level: <b>120</b>
1.3 Total number of hours: 1125	1.4 Prerequisites (particularly for second-level studies): First-cycle studies completed
	According to the resolution No. 151/11/2020-2024 of PWr Senate from 17 June 2021 and resolution No. 26/22/2020-2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains professional degree of: <b>magister</b>	1.6 Graduate profile, employability:  The graduate of the studies has advanced specialist knowledge in the field of management sciences in the field of: quantitative models and methods, integrated IT systems, and most of all, modern concepts and methods of management, planning and monitoring of the company's performance as well as the functioning, development and strategic renewal of the organization. Graduates are capable of abstract thinking and critical understanding of knowledge, enabling them to identify, describe, analyze

and interpret complex processes and problems of the organization and its environment. Has the ability to integrate knowledge from various fields (economics, psychology, law) and use IT and mathematical tools in order to make a comprehensive diagnosis of the situation and create innovative solutions to problems in the work environment.

Graduates are prepared to work as independent entrepreneurs, managers, specialists and consultants by developing advanced skills of identifying, formulating and solving problems in conditions of complexity and uncertainty of the environment, combined with the ability to select analytical methods and tools.

The graduate knows how to use advanced methods: business data analysis, data mining, discrete optimization, network flow, decision games. He can identify and lead the processes of implementation and operation of IT systems. He/she can analyze the information and IT needs of the organization. He/she can define the legal, economic, financial, organizational and technological conditions of the organization's functioning and the implementation of IT innovations in these entities

These skills qualify the graduate to perform substantive functions in the field of information systems, in particular as an analyst of management information systems, as a person implementing management information systems and responsible for their maintenance, as an analyst of business processes, as a consultant in the field of computerization of enterprises. He is also prepared to perform the role of a middle and higher level manager in the field of information technology.

# 1.7 Possibility of continuing studies: eligibility to apply for admission to a doctoral school, non-degree postgraduate programmes

1.8 Indicate connection with University's mission and its development strategy:

Education in the field of Management is conducted in the field of social sciences, but it is directly part of the mission and strategy of a technical

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

university. Management graduates acquire business, analytical, social and technical competences.

The education program is in line with the University's mission and strategy in the field of:

- Shaping creative, critical and tolerant graduates by emphasizing the development of appropriate skills and attitudes;
- Striving for high-quality education and creating conditions for free discussion and criticism with respect for truth for students of Management and teaching staff;
- Cultivate the values and traditions of comprehensive cooperation with the University's stakeholders, through the participation of Management students in scientific conferences and the Erasmus program, and cooperation with employers through practical forms of classes, implemented in the form of projects in specific institutions;
- Striving to obtain a worthy place in the field of training specialists in the field of management among domestic and foreign universities, by emphasizing the professionalism and hard skills of graduates. According to the principle adopted at Wrocław University of Science and Technology, studies in the field of Management have a general academic profile. The curriculum meets all the requirements resulting from applicable law, including the Polish Qualifications Framework in the field of social sciences.

The education program at the Management faculty is unique. Like the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates the natural - in economic practice - complementarity of technical and economic education, enriched with an IT module.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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The regional roots of the University mean that the educational program in the field of Management creates conditions and forces students to systematically contact various organizations throughout the teaching process.

The quality of education in the didactic offer at the Faculty is systematically improved. This is achieved thanks to the scientific development of employees and their teaching competences, as well as thanks to the systematic expansion of the Faculty's infrastructure, including the modernization of rooms as well as teaching and laboratory aids, as well as software updates.

The education program implemented at the second degree of studies in the field of Management includes a set of effects and the corresponding substantive content of education, enabling graduates to effectively compete on the labor market. Students are prepared to continue their studies at the third degree and to conduct their own research. Graduates are also aware of the need to constantly act for their own professional development in cooperation with their home university.

#### 2. Detailed description

- 2.1 Total number of learning outcomes in the program of study: W (knowledge) = 17, U (skills) = 23, K (competences) = 9, W + U + K = 49
- 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

D1 (major) ...... (this number must be greater than half the total number of learning outcomes)

D2 .....

D3 .....

D4 .....

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

- 2.3 For the main field of study assigned to more than one discipline percentage share of the number of ECTS points for each discipline:
  - D1 .....% ECTS points
  - **D2** .....% **ECTS** points
  - **D3** .....% **ECTS** points
  - **D4** .....% **ECTS** points
- 2.4a. For the general academic profile of the main field of study the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned DN (must be greater than 50% of the total number of ECTS points from 1.2) 117 ECTS
- 2.4b. For the practical profile of the main field of study the number of ECTS points assigned to the classes shaping practical skills (must be greater than 50% of the total number of ECTS points from 1.2)
  - 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

The assumed learning outcomes for the second-cycle studies correspond to the following requirements set for employees by employers on the labor market:

- Employees' understanding of the strategic perspective of the company's operation, in particular the assessment and shaping of its competitiveness and value (employers medium and large enterprises);
- Independence of employees, but also the ability to fulfill various roles in the team in terms of diagnosing, proposing solutions and implementing them in the functional areas of the enterprise adequately to the completed specialization (employers medium and large enterprises);
- -Inspiring and selecting as well as implementing modern management methods and techniques as well as selected IT tools;
- Ability to learn and share knowledge with others, as well as creativity and openness to innovation.
- The education program in the field of Management at second-cycle studies and many years of experience of the teaching staff create conditions for graduates to achieve the assumed learning outcomes and meet the above-mentioned requirements formulated by employers.
- 2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU<sup>1</sup> code) 60.9 ECTS

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 2.7. Total number of ECTS points, which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	16
Number of ECTS points for optional subjects	0
Total number of ECTS points	16

# **2.8. Total number of ECTS points, which student has to obtain from practical classes, including project and laboratory classes** (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	21
Number of ECTS points for optional subjects	50
Total number of ECTS points	71

2.9. Minimum number of ECTS points, which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O)

**3** ECTS points

2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points)
72 ECTS points

# 3. Description of the process leading to learning outcomes acquisition:

The process leading to the achievement of the assumed learning outcomes includes active participation in classes organized at the university in a traditional and remote form: lectures, exercises, laboratories, projects and seminars, as well as independent studies allowing for consolidation, supplementation and extension of knowledge. The curriculum implemented in the field of study creates conditions and forces students to systematically contact various organizations throughout the teaching process. If necessary, the student may take advantage of individual consultations.

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# 4. List of education blocks:

# 4.1. List of obligatory blocks:

# 4.1.1 List of general education blocks

**4.1.1.1** *Liberal-managerial subjects* block (min. ..... ECTS points):

No.	Course/	Name of course/group of courses	V	/eekly	numbe	er of ho	ours	Learning	Numl ho		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# **4.1.1.2** Foreign languages block (min. ....... ECTS points):

No.	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect	Numb hou		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		_		·						·									

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total									

# **4.1.1.3** *Sporting classes* block (0 ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	3
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

		· · · · · · · · · · · · · · · · · · ·	(	 ,				
No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	Course/group of courses

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN⁵ classes	BU <sup>1</sup> classes		University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total																

# Altogether for general education blocks

	Total r	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# 4.1.2 List of basic sciences blocks

#### 4.1.2.1 Mathematics block

	Course/		W		y nur		of		Numbe	r of hours	Numbe	er of ECTS	points	Form <sup>2</sup> of		Со	urse/group	of courses	
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p r	s e m	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses cl	Way <sup>3</sup> of crediting lab	University- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0037W	Operations Research	1					K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е		DN		PD
2	W08ZZZ- SM0037L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		PD
4	W08ZZZ- SM0039P	Economteric Modelling and Forecasting				1		R2_ZARZ_U03  K2_ZARZ_U04  K2_ZARZ_U11  K2_ZARZ_U11  K2_ZARZ_U14  K2_ZARZ_U15  K2_ZARZ_U15  K2_ZARZ_U18  K2_ZARZ_U23  K2_ZARZ_U3  K2_ZARZ_U5  K2_ZARZ_K01  K2_ZARZ_K05  K2_ZARZ_K08  K2_ZARZ_K08  K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	PD
5	W08ZZZ- SM0034W	Statistics and ekonometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Z		DN		PD
6	W08ZZZ- SM0034L	Statistics and ekonometrics			1			K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	PD
	•	Total	4	0	3	1	0		120	420	14	14	5.6						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 4.1.2.2 Physics block

	Course/,	Name of course/group of courses	We	ekly nı	ımber	of ho	ours	Learning effect	Numbe	r of hours	Numb	er of ECTS	points	Form <sup>2</sup> of	Way <sup>3</sup> of	(	Course/grou	p of courses	s
No.	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	p	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	ourse/gr oup of courses	crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activitie	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0029W	Work Environment Physics II	1					K2_ZARZ_W15 K2_ZARZ_U05	15	60	2	2	0.7	T/Z	Z		DN		PD
	·	Total	1	0	0	0	0		15	60	2	2	0.7						

4.1.2.3 Chemistry block

	Course/		V	Veekly	numbe	er of ho	ours		Numl		Numbe	er of ECTS	points			Co	ourse/group	of courses	
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
										·	·								_
		Total																	

#### other.....

# Altogether for basic sciences blocks:

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	0	3	1	0	135	480	16	16	6.3

# 4.1.3 List of the main field of study blocks

# 4.1.3.1 Obligatory main field of study blocks

	Course/		We	ekly nu hou		of	Learning effect	Numbe	r of hours	Numbe	er of ECTS	points	Form <sup>2</sup> of		(	Course/grou	p of course	š
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	c l a	p	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management concepts	2				K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ- SM0030P	Management concepts			1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	К
3	W08ZZZ- SM0030S	Management concepts				1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	К
4	W08ZZZ- SM0038W	Controlling	1				K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

5	W08ZZZ- SM0038P	Controlling			1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U08 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	K
6	W08ZZZ- SM0031W	Simulation modeling	1				K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		K
7	W08ZZZ- SM0031L	Simulation modeling			1		K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
8	W08ZZZ- SM0032W	Management psychology	1				K2_ZARZ_W11 K2_ZARZ_W10 K2_ZARZ_W12	15	30	1	1	0.7	T/Z	Z	DN		K
9	W08ZZZ- SM0032S	Management psychology				1	K2_ZARZ_U07 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	Р	К
10	W08ZZZ- SM0033W	Managerial accounting	1				K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	30	1	1	0.7	T/Z	Z	DN		K
11	W08ZZZ- SM0033C	Managerial accounting		1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
12	W08ZZZ- SM0035W	Strategic Management	2				K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W07	30	90	3	3	1.4	T/Z	E	DN		K
13	W08ZZZ- SM0035P	Strategic Management			1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	Р	К
14	W08ZZZ- SM0035S	Strategic Management				1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	К

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

15	W08ZZZ- SM0043W	Value Based Management	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	Е	DN		К
16	W08ZZZ- SM0043P	Value Based Management				1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
17	W08ZZZ- SM0036W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	60	2	2	1.4	T/Z	Z	DN		K
18	W08ZZZ- SM0036L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	P	К
		Total	11	1	2	4	2		315	960	32	32	14.7					

# Altogether (for main field of study blocks):

	Total r	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	1	2	4	2	315	960	32	32	14.7

# 4.2 List of optional blocks

# **4.2.1** List of general education blocks

# **4.2.1.1 Liberal-managerial subjects blocks** (min. ..... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours		Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	Course/group of courses
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

 $<sup>^3</sup>$ Exam - enter E, crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes		University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
 	Total																

## **4.2.1.2** Foreign languages block (min. 3 ECTS points):

No.	Course/	Name of course/group of courses (denote	We		y nu hou:	ımbe rs	r of		Learning effect	Numbe	r of hours	Numbe	er of ECTS	points	Form <sup>2</sup> of	Way <sup>3</sup> of	(	Course/grou	p of course	š
	group of courses code	group of courses with symbol <b>GK</b> )	le c	c l	l a b	p r	s e m	s e n	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	ourse/gr oup of courses	crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign Language I		1					K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	Т	Z	0		P	КО
2	SJO- SM0001	Foreign Language II		3					K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	Т	Z	0		P	КО
		Total	0	4	0	0	0	0		60	90	3		2.0						

## **4.2.1.3 Sporting classes block** (0. ECTS points):

No.	Course/ group of	Name of course/group of courses (denote group of courses with symbol		Veekly	numbe	er of h	ours	Learning effect	Numl ho		Numbe	er of ECTS	S points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	Co	ourse/group	of courses	
	courses code	GK)	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

									scientific activities <sup>5</sup>	
·	Total						·			

**4.2.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect	Numb hou		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN⁵ classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

## Altogether for general education blocks:

Total number of hours	Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

lec	cl	lab	pr	sem					
0	4	0	0	0	60	90	3	0	2.0

#### 4.2.2 List of basic sciences blocks

**4.2.2.1** *Mathematics* block (min. .... ECTS points):

		4.2.2.1 Multertailes block (III			-~ <sub>F</sub>		- , -												
	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect	Numl ho		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

### **4.2.2.2** *Physics* block (min. .... ECTS points):

	Course/	Name of course/group of courses	W	Veekly	numbe	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	5 points	Form <sup>2</sup> of		Co	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total								

#### **4.2.2.3** *Chemistry* block (min. .... ECTS points):

	Course/	Name of course/group of courses	W	√eekly	numbe	er of ho	ours	Learning	Num ho	ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 4.2.3 List of blocks

#### **4.2.3.1 Block** (*min. 3. ECTS points*):

	Course/	Name of course/group of courses (denote	Wee		num		of	Learning effect	Numbe	r of hours	Numbe	er of ECTS	points	Form <sup>2</sup> of	Way <sup>3</sup> of	(	Course/grou	p of course	S
No.	group of courses code	group of courses with symbol <b>GK</b> )	le c	c 1	1 a b	p r	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/g roup of courses	creditin g	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	K
2	W08ZZZ- SM0042S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	Р	К
		Total	0	0	0	0	2		30	90	3	3	1.4						

Altogether for blocks:

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	0	0	0	2	30	90	3	3	1.4

# 4.2.4 List of specialization blocks

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## **4.2.4.1** *Specialization subjects (e.g. whole specialization)* blocks (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses (denote	We	eekly i	numbe urs	r of	Learning effect symbol		mber of nours	Numb	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of		Course/grou	p of courses	j
	courses code	group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	c l	l a p			ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0073W	Knowledge-based Business	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0073L	Knowledge-based Business			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0074W	Design Management	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0074P	Design Management			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z		DN	Р	S
5	W08ZZZ- SM0075W	Entrepreneurship incubators	2				K2_ZARZ_U22	30	90	3	3	1.4	T/Z	Е		DN		S
6	W08ZZZ- SM0075S	Entrepreneurship incubators				1	K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	Р	S
7	W08ZZZ- SM0078W	Marketing towards Innovations	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ- SM0078P	Marketing towards Innovations			1		K2_ZARZ_U07 K2_ZARZ_U08 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z		DN	P	S
9	W08ZZZ- SM0079W	Measurements of Entrepreneurship and Innovation	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN		S
10	W08ZZZ- SM0079C	Measurements of Entrepreneurship and Innovation		1			K2_ZARZ_U22 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	S
11	W08ZZZ- SM0041D	MSc Thesis I			2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	180	6	6	3.0	T/Z	Z		DN	P	S
12	W08ZZZ- SM0045D	MSc Thesis II			2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	540	18	18	9.0	T/Z	z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

13	W08ZZZ- SM0070W	Innovation processes	2				K2_ZARZ_U22 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z	DN		S
14	W08ZZZ- SM0070P	Innovation processes				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K05	15	30	1	1	0.7	T/Z	Z	DN	P	S
15	W08ZZZ- SM0071W	Strategic Entrepreneurship	2				K2_ZARZ_U22 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z	DN		S
16	W08ZZZ- SM0071S	Strategic Entrepreneurship				1	K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN	P	S
17	W08ZZZ- SM0076S	Corporate Social Responsibility				1	K2_ZARZ_U22 K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	S
18	W08ZZZ- SM0077W	Protected Knowledge Management Strategies	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
19	W08ZZZ- SM0077S	Protected Knowledge Management Strategies				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K07 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	P	S
20	W08ZZZ- SM0072W	Advanced Project Management	2				K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Е	DN		S
21	W08ZZZ- SM0072C	Advanced Project Management		1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	S
22	W08ZZZ- SM0072P	Advanced Project Management			2		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	30	60	2	2	1.4	T/Z	Z	DN	P	S
23	W08ZZZ- SM0080W	Advanced Change Management	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
24	W08ZZZ- SM0080S	Advanced Change Management				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z	DN	P	S
		Total	14	2	1 8	6	0	465	1710	57	57	30.9					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

### **4.2.4.2 Legal and Economic block** (min. 4 ECTS points):

	Course/	Name of course/aroun of courses (denote	W		num ours	ber	of	Learning effect	Numbe	er of hours	Numbe	er of ECTS	points	Form <sup>2</sup> of		(	Course/grou	p of courses	3
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c l	l a b	p r	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM2PIP01B PE-21Z	Legal and Economic block	2	2	0	0	0	K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8						
1	W08ZZZ- SM0096W	Institutional and financial instruments for support innovation of enterprise and economy	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0096C	Institutional and financial instruments for support innovation of enterprise and economy		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM00998W	Internationalization of Company Activitie	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM00998C	Internationalization of Company Activitie		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0091W	International Economic Transaction	1						15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ- SM0091C	International Economic Transaction		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
7	W08ZZZ- SM0097W	Legal and Economic Aspects of Doing Business and Innovative Projects	1						15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ- SM0097C	Legal and Economic Aspects of Doing Business and Innovative Projects		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
9	W08ZZZ- SM0093W	Agreement in Trade	1						15	30	1	1	0.7	T/Z	Z		DN		S
10	W08ZZZ- SM0093C	Agreement in Trade		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
11	W08ZZZ- SM0115W	Management of Intellectual Property Protection in a Compan	1						15	30	1	1	0.7	T/Z	Z		DN		S
12	W08ZZZ- SM0115C	Management of Intellectual Property Protection in a Compan		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
		Total	2	2	0	0	0	· · · · · · · · · · · · · · · · · · ·	60	120	4	4	2.8						

**4.2.4.3** Psycho-socialogical block (min. .2... pkt ECTS):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Learning effect symbol	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	Course/group of courses
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	group of courses code		le c	c 1	l a b	p r	s e m		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes			Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM300001B PS-21Z	Psycho-socialogical block	1	0	0	0	1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_K02 K2_ZARZ_K08	30	60	2	2	1.4						
1	W08ZZZ- SM0101W	Organizational Communication	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0101S	Organizational Communication					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0102W	Psychology of Decision and Risk	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0102S	Psychology of Decision and Risk					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0103W	Economic Psychology	1						15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ- SM0103S	Economic Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
7	W08ZZZ- SM0104W	Cognitive Psychology	1						15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ- SM0104S	Cognitive Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
9	W08ZZZ- SM0105W	Problem Resolving in Organization	1						15	30	1	1	0.7	T/Z	Z		DN		S
10	W08ZZZ- SM0105S	Problem Resolving in Organization					1		15	30	1	1	0.7	T/Z	Z		DN	P	P
11	W08ZZZ- SM0106W	Team Management	1			ĺ			15	30	1	1	0.7	T/Z	Z		DN		S
12	W08ZZZ- SM0106S	Team Management					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
		Total	1	0	0	0	1		30	60	2	2	1.4						

**4.2.4.4 Optional lecture Block** (min. .3... pkt ECTS):

No.	Course/	Name of course/group of courses (denote	We		y nui hour	mber s	of	Learning effect symbol		nber of ours	Numb	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of courses	S
110.	group of courses code	group of courses with symbol <b>GK</b> )	le c	c l	l a b	p r	s e m		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM4PIP01WW -21Z	Selective Lecture block	2	0	0	0	0		30	90	3	3	1.4						
1	W08ZZZ- SM0108W	Project Controlling	2					K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_U22	30	90	3	3	1.4	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_U23									
2	W08ZZZ- SM0109W	Methods of Processes Quality Improvements	2					K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
3	W08ZZZ- SM0110W	Process and Project Modeling in Conditions of Uncertainty	2					K2_ZARZ_W06 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
4	W08ZZZ- SM0111W	Social Determinants of Innovation	2					K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
5	W08ZZZ- SM0107W	Evaluation Studies of Innovative Projects	2					K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
		Total	2	0	0	0	0		30	90	3	3	1.4				

#### **Altogether for specialization blocks:**

	Total r	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
19	4	1	8	7	585	1980	66	66	36.5

## 4.3 Training block - concerning principles of training crediting - attachment no. ...

## Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training				
Number of ECTS points	Number of	ECTS points for BU¹ classes	Training crediting mode	Code
Training duration	on	Train	ing objective	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

Type of diploma dissertation	Licencjat / inż	ynier / magister / magister inżynier*
Number of diploma dissertation semesters	Number of ECTS points	Code
3	1	W08ZZZ-SM0040S Seminar I
	2	W08ZZZ-SM0042S Seminar II
	6	W08ZZZ-SM0041D MSc Thesis I
	18	W08ZZZ-SM0045D MSc Thesis II
Cha	racter of diploma diss	ertation
Literature	e survey, project, computer	r program, etc.
Number of BU <sup>1</sup> ECTS points		13.4

## 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	Exam or test - single or multiple choice knowledge test; open-ended questions
class	Colloquium (knowledge test and / or open-ended questions); Written studies in the form of reports - literature studies and case studies, diagnostic and / or project reports - empirical research in real organizations, opinions of representatives of these organizations; Oral presentations using modern means of communication
laboratory	Report on completed tasks, knowledge test
project	Written report documenting the diagnostic and design solution, presentation of the project and its defense.

 $<sup>^{1}</sup>BU$  – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes  $^{2}T$ raditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Choice - problem formulation - topic; Activity in discussions; in discussion, Written study in the form of a scientific report, essay, "mini" monograph. Oral presentations using modern means of communication
1 <del>*</del>	A written study in accordance with the applicable requirements for diploma theses, assessed by the tutor and reviewer on the appropriate review form.

#### 6. Range of diploma examination

- 1. Theories of regulation and their connection with classical schools of economics.
- 2. Determinants of economic growth and development in Keynesian and neoliberal economy.
- 3. The influence of competition policy and industrial policy on the company's activities on the EU market.
- 4. Pan-European organizational and legal forms of running a business.
- 5. Economic and legal tools and economic effects of breaking up monopolies.
- 6. Methods of strategic analysis of the organization's environment and the organization's potential.
- 7. The essence of strategic management. Schools of thought and trends in strategic management.
- 8. Institutional and financial instruments supporting the competitiveness and innovation of enterprises in EU.
- 9. Forms of internationalization of the company's activity.
- 10. Organizational growth and development model.
- 11. Features of an intelligent organization.
- 12. Knowledge management in an organization goals, functions, models and instruments examples.
- 13. Knowledge management strategies.
- 14. Institutional and non-institutional forms of intellectual property protection.
- 15. Methods and application of cost calculation.
- 16. Value of the enterprise methods of calculation.
- 17. Strategic and operational controlling instruments.
- 18. Integrated Scorecard as a method of monitoring the achievement of strategic goals.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

- 19. Roles and tasks of the budgeting process in the enterprise.
- 20. Characterize the measures of creating value added.
- 21. Methods of measuring and evaluating the achievements of the organization as a whole and in relation to its individual parts (centers of responsibility).
- 22. Management by objectives idea, stages, and conditions.
- 23. Contemporary and classical structural solutions of the management concepts- similarities and differences.
- 24. The essence, concepts and organizational solutions of controlling.
- 25. VBM Value Based Management.
- 26. Psychological contract as a determinant of organizational culture.
- 27. The subject and scope of unfair commercial practices.
- 28. The importance of the code of good practice in the relationship between economic organization and consumer.
- 29. The essence of leadership in an organization. Leadership concepts and styles.
- 30. Conflict management; the concept of conflict, sources and types of conflicts in the organization, methods of solving interpersonal and intergroup conflicts.
- 31. The decision-making process, individual and situational determinants.
- 32. The influence of motivation on human behavior in the context of achieving the goals of the group and organization.
- 33. Instruments of intra-organizational entrepreneurship.
- 34. Psychological aspects of resistance to changes and ways of overcoming them.
- 35. Factors favoring and blocking the processes of creative thinking. Creative problem solving techniques.
- 36. Methods of operational research purpose and scope of applications in management examples
- 37. The importance of the level of significance in testing statistical hypotheses.
- 38. Components of time series. Forecasting methods based on time series.
- 39. Simulation methods. The course of the simulation process. Objectives of simulation studies examples of applications.
- 40. Typical strategies of management informatization on the example of an industrial enterprise.
- 41. Change Management in an organization methods.
- 42. Stages of organization growth (e.g. L. Greiner model).

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO$  – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 43. Methods of designing, analyzing and modelling processes in an organization.
- 44. Methods of evaluation and improvement of processes in the organization.
- 45. The essence of corporate, academic and social entrepreneurship.
- 46. Elements of the business plan for an innovative venture, in particular, spin-off and spin-out.
- 47. Innovative processes taking place in the organization supporting instruments.
- 48. Entrepreneurship and innovation fundamental differences.
- 49. Mechanisms and methods of stimulating and supporting organisational creativity and innovation.
- 50. Institutions supporting the development of innovation and entrepreneurship. goals and methods of support.
- 51. The principles of granting public aid supporting innovation within the framework of the European Union policy.
- 52. Protection of exclusive rights to intellectual property in the company's market activity.
- 53. Intellectual property management strategy in an enterprise.
- 54. Principles and instruments of corporate social responsibility.
- 55. People in the project leadership, team, resistance, conflicts, crises, and influence on the project.
- 56. Advantages and disadvantages of waterfall and agile project management approach.
- 57. Tools for assessing and implementing innovative solutions under risk, uncertainty, and changing environment.
- 58. Methods of measuring entrepreneurship and innovation.
- 59. Principles of building and functioning of project teams.
- 60. Factors and methods influencing the effectiveness and efficiency of teams' work.

## 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

No.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^7</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

## 8. Plan of studies (attachment no. 3)

Approved by faculty student government legislative body:

28.10.2022

Date

name and surname, signature of student representative

DZIEKAN

28.60.20Ze

Date

dr.hab. inż. Katarzkoa Tworek, prof. uczelni

Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU - number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses - enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## **PLAN OF STUDIES**

**FACULTY**: MANAGEMENT

MAIN FIELD OF STUDY: MANAGEMENT

**EDUCATION LEVEL:** second-level studies

FORM OF STUDIES: full time studies

**PROFILE:** general academic

SPECIALIZATION: PRZEDSIĘBIORCZOŚC INNOWACJE I PROJEKTY

**LANGUAGE OF STUDY: Polish** 

In effect since 2023/2024

<sup>\*</sup>delete as applicable

## **Plan of studies structure (optionally)**

1) in ECTS point layout

	7			
23	]			
22		Operations Research 150 5		
21	Work Environment Physics II 60		Value Based Management150	]
20	Simulation modeling	Economteric Modelling and Forecasting	5	
19	120 4	120 4	Foreign Language I 30 1	]
18	Managerial Accounting	Controlling		
17	90 3	120 4	Foreign Language II 60 2	
16	Management Psychology			
15	60 2	Legal and Economic block	Psycho-sociological block	
14		120 4	60 2	
13	Management Concepts		Design Management	
12	180 6		60 2	
11		Strategic Entrepreneurship 90 3		
10			Entrepreneurship Incubators 120 4	Selective Lecture block
9	Statistics and Econometrics 150 5			90 3
8		Innovation Processes 90 3	Protected Knowledge Management Strategies	Measurements of Entrepreneurship and Innovation
7	Integrated Management Information		60 2	90 3
6	Systems		Corporate Social Responsibility 60 2	Advanced Change Management
5	90 3		Knowledge-based Business	90 3
4		Advanced Project Management 180 6	60 2	Marketing towards Innovations
3	Strategic Management		MSc Thesis I	90 3
2	150 5		MSc Thesis II	
1		Seminar I 30 1	Seminar II 60 2	540 18
	I	П	III	IV

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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2) in hourly layout

<i>∠)</i> III	nourly layout			
23		Operations Research		
22		10200 E		
21	Work Environment Physics II		Value Based Management10010 E	
20	Simulation Modeling	Economteric Modelling and Forecasting	S	
19	10100	10010	Foreign Language I	
18	Managerial Accounting	Controlling		
17	11000	10010	Foreign Language II O3OOO	
16	Management Psychology			
15	10001	Legal and Economic block	Psycho-sociological block	
14		20000	10001	
13	Management Concepts		Design Management10010	
12	20011 E		Design Management 10010	
11		Strategic Entrepreneurship2OOO1		
10			Entrepreneurship Incubators 20001 E	Selective Lecture block
9	Statistics and Econometrics 20100			20000
8		Innovation Processes 20010	Protected Knowledge Management	Measurements of Entrepreneurship and Innovation
7	Integrated Management Information		Strategies 10001	11000
6	Systems		Corporate Social Responsibility	Advanced Change Management
5	20100		Knowledge-based Business	10001
4		Advanced Project Management 21020 E	10100	Marketing towards Innovations
3	Strategic Management		MSc Thesis I	10010
2	20011 E		[2]	MSc Thesis II
1		Seminar I OOOO1	Seminar II OOOO1	[2]
	I	П	III	IV

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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## 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

#### Semester 1

**Obligatory courses / groups of courses** 

### **Number of ECTS points 30**

No.	Course/	Name of course/group of courses (denote	Wee	ekly ni hou		er of	Learning effect symbol		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of course	es
NO.	courses code	group of courses with symbol <b>GK</b> )	lec		l a b		errect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	oup of courses	crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management Concepts	2				K2_ZARZ_W0 4 K2_ZARZ_W0 5 K2_ZARZ_W0 8	30	90	3	3	1.4	T/Z	E		DN		K
2	W08ZZZ- SM0030P	Management Concepts			1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	K
3	W08ZZZ- SM0030S	Management Concepts				1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	K
4	W08ZZZ- SM0031W	Simulation Modeling	1				K2_ZARZ_W1	15	60	2	2	0.7	T/Z	Z		DN		K
5	W08ZZZ- SM0031L	Simulation Modeling			1		K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	K
6	W08ZZZ- SM0032W	Management Psychology	1				K2_ZARZ_W1 1 K2_ZARZ_W1 0 K2_ZARZ_W1 2	15	30	1	1	0.7	T/Z	Z		DN		K

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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7	W08ZZZ- SM0032S	Management Psychology				1	K2_ZARZ_U07 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	Р	K
8	W08ZZZ- SM0033W	Managerial Accounting	1				K2_ZARZ_W0 6 K2_ZARZ_W0 7 K2_ZARZ_W0 8	15	30	1	1	0.7	T/Z	Z	DN		K
9	W08ZZZ- SM0033C	Managerial Accounting		1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
10	W08ZZZ- SM0034W	Statistics And Econometrics	2				K2_ZARZ_W0 1 K2_ZARZ_W0 2 K2_ZARZ_W0 6 K2_ZARZ_W0 8 K2_ZARZ_W1	30	90	3	3	1.4	T/Z	Z	DN		PD
11	W08ZZZ- SM0034L	Statistics And Econometrics			1		K2_ZARZ_U03 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07	15	60	2	2	0.7	T/Z	Z	DN	P	PD
12	W08ZZZ- SM0029W	Integrated Management Information Systems	2				K2_ZARZ_W0 5 K2_ZARZ_W0 6 K2_ZARZ_W0 9 K2_ZARZ_W1 4	30	60	2	2	1.4	T/Z	Z	DN		К
13	W08ZZZ- SM0036W	Integrated Management Information Systems			1		K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	К
14	W08ZZZ- SM0036L	Work Environment Physics II	1				K2_ZARZ_W1 5 K2_ZARZ_U05	15	60	2	2	0.7	T/Z	Z	DN		PD

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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15	W08ZZZ- SM0035W	Strategic Management	2				K2_ZARZ_W0 2 K2_ZARZ_W0 3 K2_ZARZ_W0 5 K2_ZARZ_W0 6 K2_ZARZ_W0 7	30	90	3	3	1.4	T/Z	E	DN		К
16	W08ZZZ- SM0035P	Strategic Management			1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	z	DN	Р	K
17	W08ZZZ- SM0035S	Strategic Management				1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	К
		Total	12	1 3	3 2	3		315	900	30	30	14.7					

Optional courses / groups of courses (minimum ..... hours in semester, ...... ECTS points)

No.	Course/	Name of course/group of courses	V	/eekly	numb	er of ho	ours	Learning		oer of urs	Nu	mber of E0 points	CTS	Form <sup>2</sup> of		Co	ourse/group	of courses	•
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether in semester

	Total	number of	hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
12	1	3	2	3	315	900	30	30	14.7

#### Semester 2

#### **Obligatory courses / groups of courses**

## **Number of ECTS points 25**

No.	Course/ group of	Name of course/group of courses (denote	W		y nun hours		r	Learning effect symbol		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	ip of course	es
	courses code	group of courses with symbol <b>GK</b> )	le c	c l	l a b	p r	s e m	circet symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	courses	crediting	Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0037W	Operations Research	1					K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е				PD
2	W08ZZZ- SM0037L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0038W	Controlling	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		К

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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4	W08ZZZ- SM0038P	Controlling			1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U33 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	z	DN	Р	К
5	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1				K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		PD
6	W08ZZZ- SM0039P	Economteric Modelling and Forecasting			1		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U18 K2_ZARZ_U38 K2_ZARZ_U38 K2_ZARZ_U38 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	Р	PD
7	W08ZZZ- SM0070W	Innovation processes	2				K2_ZARZ_U22 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z	DN		S
8	W08ZZZ- SM0070P	Innovation processes				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K05	15	30	1	1	0.7	T/Z	Z	DN	Р	S
9	W08ZZZ- SM0071W	Strategic Entrepreneurship	2				K2_ZARZ_U22 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z	DN		S
10	W08ZZZ- SM0071S	Strategic Entrepreneurship				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	S
11	W08ZZZ- SM0072W	Advanced Project Management	2				K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Е	DN		S
12	W08ZZZ- SM0072C	Advanced Project Management		1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	S
13	W08ZZZ- SM0072P	Advanced Project Management			2		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	30	60	2	2	1.4	T/Z	Z	DN	P	S
		Total	9	1	2 4	3		270	750	25	25	12.6					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## Optional courses / groups of courses (minimum 75 hours in semester, 5 ECTS points)

No.	Course/	N. C. (I. (I.	W		y nu houi	mber		Learning		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of	_	(	Course/grou	ip of course	es.
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p	s e m	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	S
2	ZZZ- SM2PIP01B PE-21Z	Legal and Economic block	2	2				K2_ZARZ_W0 1 K2_ZARZ_W0 2 K2_ZARZ_W0 3 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K06 K2_ZARZ_K06	60	120	4	4	2.8	T/Z	Z		DN		S
	W08ZZZ- SM0096W	Institutional and financial instruments for support innovation of enterprise and economy	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0096C	Institutional and financial instruments for support innovation of enterprise and economy		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0098W	Internationalization of Company Activitie	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0098W	Internationalization of Company Activitie		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0091W	International Economic Transaction	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0091C	International Economic Transaction		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0097W	Legal and Economic Aspects of Doing Business and Innovative Projects	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0097C	Legal and Economic Aspects of Doing Business and Innovative Projects		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0093W	Agreement in Trade	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0093C	Agreement in Trade		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0115W	Management of Intellectual Property Protection in a Compan	1						15	30	1	1	0.7	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

W08ZZZ- SM0115C	Management of Intellectual Property Protection in a Compan		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
	Total	2	2	0	0	0	75	150	5	5	3.5					

#### **Altogether in semester**

	Total	number of	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	3	2	4	3	345	900	30	30	16.1

#### Semester 3

#### **Obligatory courses / groups of courses**

## **Number of ECTS points 17**

No.	Course/ group of	Name of course/group of courses (denote	W	eekly num of hours	ber	Learning effect		nber of ours	Numb	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of course	us .
	courses code	group of courses with symbol <b>GK</b> )	le c	$\begin{bmatrix} c & 1 & p \\ 1 & a & r \end{bmatrix}$	s e m	Symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	oup of courses	crediting	Universi ty-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0073W	Knowledge-based Business	1			K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2	W08ZZZ- SM0073L	Knowledge-based Business			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	S
3	W08ZZZ- SM0074W	Design Management	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ- SM0074P	Design Management			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	S
5	W08ZZZ- SM0075W	Entrepreneurship incubators	2				K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	E	DN		S
6	W08ZZZ- SM0075S	Entrepreneurship incubators				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	S
7	W08ZZZ- SM0076S	Corporate Social Responsibility				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K02	15	60	2	2	0.7	T/Z	Z	DN	P	S
8	W08ZZZ- SM0077W	Protected Knowledge Management Strategies	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
9	W08ZZZ- SM0077S	Protected Knowledge Management Strategies				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K07 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	P	S
10	W08ZZZ- SM0043W	Value Based Management	1				K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	E	DN		K
13	W08ZZZ- SM0043P	Value Based Management			1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
	- <del></del>	Total	6	0	1 2	4		180	510	17	17	8.4			 		

#### Optional courses / groups of courses (minimum 135 hours in semester, 13 ECTS points)

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Learning effect symbol	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/g roup of courses	Way <sup>3</sup> of crediting	Course/group of courses
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	group of courses code		le c	c 1	l a b	p r	s e m		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes			Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1	0	0.5	T/Z	Z	О		Р	КО
2	SJO- SM0002	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2	0	1.5	T/Z	Z	0		P	КО
3	W08ZZZ- SM0041D	MSc Thesis I				2		K2 ZARZ W06 K2 ZARZ W09 K2 ZARZ W10 K2 ZARZ W10 K2 ZARZ U04 K2 ZARZ U04 K2 ZARZ U16 K2 ZARZ U16 K2 ZARZ U16 K2 ZARZ U16 K2 ZARZ K11 K2 ZARZ K10	30	180	6	6	3.0	T/Z	Z		DN	P	S
4	W08ZZZ- SM0042S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	Р	S
5	ZZZ- SM300001 BPS-21Z	Psycho-sociological block	1				1	K2_ZARZ_W1 1 K2_ZARZ_W1 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_U23 K2_ZARZ_K0	30	60	2	2	1.4	T/Z	z		DN	P	s
	W08ZZZ- SM0101W	Organizational Communication	1					-	15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0101S	Organizational Communication					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0102W	Psychology of Decision and Risk	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0102S	Psychology of Decision and Risk					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0103W	Economic Psychology	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0103S	Economic Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0104W	Cognitive Psychology	1						15	30	1	1	0.7	T/Z	Z		DN		S
	W08ZZZ- SM0104S	Cognitive Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
	W08ZZZ- SM0105W	Problem Resolving in Organization	1						15	30	1	1	0.7	T/Z	Z		DN		S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

W08ZZZ- SM0105S	Problem Resolving in Organization					1	15	30	1	1	0.7	T/Z	Z	DN	P	P
W08ZZZ- SM0106W	Team Management	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0106S	Team Management					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
	Total	1	4	0	2	2	135	390	13	10	7.1					

Altogether in semester

	Total	number of	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
7	4	1	4	5	315	900	30	27	15.5

#### Semester 4

## **Obligatory courses / groups of courses**

## **Number of ECTS points 9**

No.	Course/ group of	Name of course/group of courses (denote	Weekly number of hours	Learning effect symbol	1 .	mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	C	Course/grou	p of course	es
NO.	courses code	group of courses with symbol <b>GK</b> )	$\begin{bmatrix} le & c & l & p & s \\ c & l & a & r & e \\ \end{bmatrix}$	eneer symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

1	W08ZZZ- SM0078W	Marketing towards Innovations	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
2	W08ZZZ- SM0078P	Marketing towards Innovations			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	S
3	W08ZZZ- SM0079W	Measurements of Entrepreneurship and Innovation	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ- SM0079C	Measurements of Entrepreneurship and Innovation		1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	S
5	W08ZZZ- SM0080W	Advanced Change Management	1				K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0080S	Advanced Change Management				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z	DN	P	S
		Total	3	1 (	3	1		90	810	9	9	4.2					

## Optional courses / groups of courses (minimum 60 hours in semester 21 ECTS points)

		Course/			ekly of ho		ber	Lauring		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		C	Course/grou	ip of course	es
N	О.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c l	p r	s e m	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/g roup of courses	Way <sup>3</sup> of crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1		W08ZZZ- SM0045D	MSc Thesis II			2		K2_ZARZ_W06 K2_ZARZ_W10 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	540	18	18	9.0	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2	ZZZ- SM4PIP01W W-21Z	Selective Lecture block	2				30	90	3	3	1.4	T/Z	Z	DN	S
	W08ZZZ- SM0108W	Project Controlling	2			K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	s
	W08ZZZ- SM0109W	Methods of Processes Quality Improvements	2			K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
	W08ZZZ- SM0110W	Process and Project Modeling in Conditions of Uncertainty	2			K2_ZARZ_W06 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	s
	W08ZZZ- SM0111W	Social Determinants of Innovation	2			K2_ZARZ_W08 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
	W08ZZZ- SM0107W	Evaluation Studies of Innovative Projects	2			K2_ZARZ_W07 K2_ZARZ_U22 K2_ZARZ_U23	30	90	3	3	1.4	T/Z	Z	DN	S
		Total	2		2		60	630	21	21	10.4				

Altogether in semester

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	1	0	3	1	150	900	30	30	14.6

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 2. Set of examinations in semestral arrangement

Course / group of courses code	Names of courses / groups of courses ending with examination	Semester
W08ZZZ-SM0030W	Management concepts	1
W08ZZZ-SM0035W	Strategic Management	1
W08ZZZ-SM0037W	Operations Research	2
W08ZZZ-SM0072W	Advanced Project Management	2
W08ZZZ-SM0075W	Entrepreneurship incubators	3
W08ZZZ-SM0043W	Value Based Management	3

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

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## 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	11
2	16
3	9
4	0

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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Opinion of student government legislative body

28.10,2022

28 10.2022

Date

Name and surname, signature of student representative

DZIEKAN

dr hab. inż. Katarzyna Tworek, prof. uczelni

Date

Dean's signature

<sup>1</sup>BU - number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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## **DESCRIPTION OF THE PROGRAM OF STUDIES**

**Main field of study Management** 

Profile general academic

Level of studies second-level studies

Form of studies full-time studies

## 1. General description

1.1 Number of semesters: 4	1.2 Total number of ECTS points necessary to complete studies at a given level: <b>120</b>
1.3 Total number of hours: <b>1110</b>	1.4 Prerequisites (particularly for second-level studies):  Graduate at least of first-level studies (bachelor program).  According to the resolution No. 151/11/2020-2024 of PWr  Senate from 17 June 2021 and resolution No. 26/22/2020- 2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains professional degree of: Master of Science ( <b>magister</b> ) 2nd level qualifications	1.6 Graduate profile, employability: 1.6 Graduate profile, employability:  The graduate of the studies has advanced specialist knowledge in the field of management sciences in the field of: quantitative models and methods, integrated IT systems, and most of all, modern concepts and methods of management, planning and monitoring of the company's performance as well as the functioning, development and strategic renewal of the organization. Graduates are capable of abstract thinking and critical understanding of knowledge, enabling them to identify, describe, analyze and interpret complex processes and problems of the organization and its environment. Has the ability to integrate knowledge from various fields (economics, psychology, law) and use IT and mathematical tools in order

to make a comprehensive diagnosis of the situation and create innovative solutions to problems in the work environment.

Graduates are prepared to work as independent entrepreneurs, managers, specialists and consultants by developing advanced skills of identifying, formulating and solving problems in conditions of complexity and uncertainty of the environment, combined with the ability to select analytical methods and tools.

The graduate knows how to use advanced methods: business data analysis, data mining, discrete optimization, network flow, decision games. He can identify and lead the processes of implementation and operation of IT systems. He/she can analyze the information and IT needs of the organization. He/she can define the legal, economic, financial, organizational and technological conditions of the organization's functioning and the implementation of IT innovations in these entities

These skills qualify the graduate to perform substantive functions in the field of information systems, in particular as an analyst of management information systems, as a person implementing management information systems and responsible for their maintenance, as an analyst of business processes, as a consultant in the field of computerization of enterprises. He is also prepared to perform the role of a middle and higher level manager in the field of information technology.

1.7 Possibility of continuing studies: eligibility to apply for admission to a doctoral school, non-degree postgraduate programmes

1.8 Indicate connection with University's mission and its development strategy:

Education in Management is conducted in the field of social sciences, however it is directly part of the mission and development strategy of a technical university. Management graduates acquire business, analytical, social and technical competences.

The educational program in Management is coherent with the mission of Wrocław University of Science and Technology in the following areas:

• Developing creative, critical and tolerant graduates, as studying a course in management emphasizes on appropriate skills and attitudes development;

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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- Aiming to provide high quality courses and providing the students of Management and lecturers with conditions enabling open discussion and constructive criticism;
- Developing the values and tradition of higher education, wide-ranging cooperation with other universities via students taking part in scientific conferences and the Erasmus program, and with employers via practical learning, carried out in the form of projects in specific organizations;
- Aiming to make an impact on the national and international scene in the area of educating specialists in the field of management, by emphasizing the professionalism and hard skills of graduates.

According to the principle adopted at Wrocław University of Science and Technology, studies in the field of Management have a general academic profile. The program satisfies all the conditions stipulated in current legislation and is also in accordance with the Polish Qualifications Framework in the field of social science.

Our programs in Management has have a unique character. In accordance with the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates a natural – in business practice – complementarity of technical science and economics, enriched with the element of computer science.

Due to the regional roots of the University, the educational programs in Management create a framework which ensures that students have systematic contact with enterprises and other institutions during their studies.

In line with the University's development strategy, the quality of education in the didactic offer at the Faculty is systematically improved. This is achieved through the development of our lecturers' research and teaching skills, as well as systematic refurbishment of

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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the department's infrastructure, including modernization of lecture theatres, audio-visual equipment and computer laboratories, and a current software updates.

The program of masters studies in management develops the theoretical knowledge and practical skills of students, enabling graduates to be highly competitiveness on the employment market. Graduates are able to undertake doctoral studies and carry out their own research. They also are conscious of the need for constant self-development in cooperation with their alma mater.

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study: W (knowledge) = ..17....., U (skills) = ..23.., K (competences) = ..9....., W + U + K = ....49.....
  - 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

D1 (major) ...... (this number must be greater than half the total number of learning outcomes)

D2 .....

D3 .....

D4 .....

2.3 For the main field of study assigned to more than one discipline - percentage share of the number of ECTS points for each discipline:

D1 .....% ECTS points

D2 .....% ECTS points

**D3** .....% **ECTS** points

D4 .....% ECTS points

2.4a. For the general academic profile of the main field of study – the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned – DN (must be greater than 50% of the total number of ECTS points from 1.2) 117 ECTS

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# 2.4b. For the practical profile of the main field of study - the number of ECTS points assigned to the classes shaping practical skills (must be greater than 50% of the total number of ECTS points from 1.2)

#### 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

The assumed learning outcomes for second-cycle studies correspond to the following requirements set for employees by employers on the labor market:

- Employees' understanding of the strategic perspective of the company's operation, in particular the assessment and shaping of its competitiveness and value (employers medium and large enterprises);
- Independence of employees, but also the ability to fulfill various roles in the team in terms of diagnosing, proposing solutions and implementing them in the functional areas of the enterprise adequately to the completed specialization (employers medium and large enterprises);
- Inspiring and selecting as well as implementing modern management methods and techniques as well as selected IT tools;
- Ability to learn and share knowledge with others, as well as creativity and openness to innovation.

The education program in the field of Management at second-cycle studies and many years of experience of the teaching staff create the conditions for graduates to achieve the assumed learning outcomes and meet the above-mentioned requirements formulated by employers.

2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU¹ code) 60.2 ECTS

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

#### 2.7. Total number of ECTS points, which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	16
Number of ECTS points for optional subjects	0
Total number of ECTS points	16

**2.8.** Total number of ECTS points, which student has to obtain from practical classes, including project and laboratory classes (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	21
Number of ECTS points for optional subjects	53
Total number of ECTS points	74

2.9. Minimum number of ECTS points, which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O)

...3.... ECTS points

2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points)

...**72**.... ECTS points

#### 3. Description of the process leading to learning outcomes acquisition:

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<sup>4</sup>University-wide course /group of courses – enter O

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<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

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The process leading to the achievement of the assumed learning outcomes includes active participation in classes organized at the university in a traditional and remote form: lectures, exercises, laboratories, projects and seminars, as well as independent studies allowing for consolidation, supplementation and extension of knowledge. The curriculum implemented in the field of study creates conditions and forces students to systematically contact various organizations throughout the teaching process. If necessary, the student may take advantage of individual consultations.

#### 4. List of education blocks:

# 4.1. List of obligatory blocks:

# 4.1.1 List of general education blocks

**4.1.1.1** *Liberal-managerial subjects* block (min. ..... ECTS points):

No.	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total							·										

#### **4.1.1.2** Foreign languages block (min. ...... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol		Veekly	numbe	er of ho	ours	Learning effect	_	oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	Co	ourse/group	of courses	
	group of courses code	GK)	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

									scientific activities <sup>5</sup>	
	Total									

#### **4.1.1.3** *Sporting classes* block (0 ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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# Altogether for general education blocks

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

#### 4.1.2 List of basic sciences blocks

#### 4.1.2.1 Mathematics block

No.	Course/ group of courses code	Name of course/group of	W	eekly 1	number	of hou	ırs	Learning effect		ber of urs	Nı	umber of E points	CCTS	Form <sup>2</sup> of		Co	ourse/group	of courses	,
		courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0037W	Operations Research	1					K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е		DN		PD
2	W08ZZZ-SM0037L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ-SM0039W	Econometric Modelling and Forecasting	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		PD
4	W08ZZZ-SM0039P	Econometric Modelling and Forecasting				1		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15	15	60	2	2	0.7	T/Z	Z		DN	P	PD

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K09										
5	W08ZZZ-SM0034W	Statistics and Econometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Z	DN		PD
6	W08ZZZ-SM0034L	Statistics and Econometrics			1			K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	PD
		Total	4	0	3	1	0	No_La INL_INU	120	420	14	14	5.6					

#### 4.1.2.2 Physics block

No.	Course/ group of courses code	Name of course/group	W	eekly 1	numbe	r of ho	urs	Learning effect		ber of urs	Nı	umber of E points	ECTS	Form <sup>2</sup> of		С	ourse/group	of courses	
		of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0029W	Work Environment Physics II	1					K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z		DN		PD
		Total	1	0	0	0	0		15	60	2	2	0.7						

# 4.1.2.3 Chemistry block

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	3
	courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

other.....

#### Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	0	3	1	0	135	480	16	16	6.3

# 4.1.3 List of the main field of study blocks

#### 4.1.3.1 Obligatory main field of study blocks

No	Course/	Name of course/group of courses (denote group of	Weekly number of hours	Learning effect symbol	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of	Way <sup>3</sup> of crediting	Course/group of courses
	group of courses code	courses with symbol <b>GK</b> )	-				courses	crediting	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	1	I	1						ZZU	CNPS							Concerni		
			lec	cl	lab	pr	sem		ZZU	CIVIS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes			University -wide <sup>4</sup>	ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0030W	Management Concepts	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ-SM0030P	Management Concepts				1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z		DN	Р	K
3	W08ZZZ-SM0030S	Management Concepts					1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U17 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	Р	K
4	W08ZZZ-SM0038W	Controlling	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		K
5	W08ZZZ-SM0038P	Controlling				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U07 K2_ZARZ_U07 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U22 ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	K
6	W08ZZZ-SM0031W	Simulation Modeling	1					K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		K
7	W08ZZZ-SM0031L	Simulation Modeling			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	Р	K
8	W08ZZZ-SM0032W	Psychology in Management	1					K2_ZARZ_W11 K2_ZARZ_W10 K2_ZARZ_W12 K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z		DN		K
9	W08ZZZ-SM0032S	Psychology in Management					1	K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

11 W	W08ZZZ-SM0033W  W08ZZZ-SM0033C  W08ZZZ-SM0035W  W08ZZZ-SM0035P	Management Accounting  Management Accounting  Strategic Management  Strategic Management	2	1				K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W08 K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05 K2_ZARZ_W05 K2_ZARZ_W05	15 15 30	30 60 90	2	2	0.7	T/Z T/Z	Z	DN DN	P	K K
12 W	W08ZZZ-SM0035W	Strategic Management	2	1				K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05						T/Z			P	K
			2					K2_ZARZ_W03 K2_ZARZ_W05	30	90	3	3				DN		
13 W	W08ZZZ-SM0035P	Strategic Management						K2_ZARZ_W07				J	1.4	T/Z	Е	D11		K
						1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	K
14 W	W08ZZZ-SM0035S	Strategic Management					1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	K
15 W	W08ZZZ-SM0043W	Value Based Management	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	Е	DN		K
16 W	W08ZZZ-SM0043P	Value Based Management				1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
17 W	N08ZZZ-SM0036W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	60	2	2	1.4	T/Z	Z	DN		K
18 W	W08ZZZ-SM0036L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	P	K
		Total	11	1	2	4	3		315	960	32	32	14.7					<u></u>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 4.1.3.2 ..... block

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### Altogether (for main field of study blocks):

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	1	2	4	3	315	960	32	32	14.7

# **4.2** List of optional blocks

# 4.2.1 List of general education blocks

#### **4.2.1.1** Liberal-managerial subjects blocks (min. ..... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours		Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	Course/group of courses
-----	---------	--	------------------------	--	-----------------	-----------------------	--	----------------------------------	-------------------------

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes		University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total																
	Total																

**4.2.1.2** Foreign languages block (min. .....3..... ECTS points):

No.	Course/ group of courses	Name of course/group of	W	eekly 1	numbe	r of ho	ırs	Learning effect		ber of urs	Nı	amber of E points	CTS	Form <sup>2</sup> of		C	ourse/group	of courses	3
	code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO-SM0001	Foreign language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	T/Z	Z	О		Р	КО
2	SJO-SM0002	Foreign language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	T/Z	Z	0		P	КО
		Total	0	4	0	0	0		60	90	3		2.0						

#### **4.2.1.3 Sporting classes block** (0. ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect	Numl ho	oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total								1
Total								1
								1
								<u> </u>

**4.2.1.4** *Information technologies* block (min. .... ECTS points):

N	lo.	Course/ group of	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning effect	Numb		Numbe	er of ECTS	points	Form <sup>2</sup> of		C	ourse/group	of courses	
		courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
			Total																	

#### Altogether for general education blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	4	0	0	0	60	90	3	0	2.0

#### 4.2.2 List of basic sciences blocks

# **4.2.2.1** *Mathematics* block (min. ... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours		Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way³ of crediting	Course/group of courses
-----	---------	--	------------------------	--	-----------------	-----------------------	--	----------------------	-------------------------

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes		University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total																

#### **4.2.2.2** *Physics* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### **4.2.2.3** *Chemistry* **block** (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	5 points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total								

Altogether for blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

#### 4.2.3 List of blocks

**4.2.3.1** ..... block (min. ..3.. ECTS points):

No.	Course/ group of courses code	Name of course/group of	W	eekly 1	numbei	of hou	ırs	Learning effect	Num ho	oer of urs	Nı	umber of E points	CTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
		courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	P	S
2	W08ZZZ-SM0042S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S
		Total	0	0	0	0	2		30	90	3	3	1.4						

#### • • • • • • • • •

# Altogether for blocks:

<sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	0	lab         pr         sem           0         0         2		2	30	90	3	3	1.4

# 4.2.4 List of specialization blocks

#### **4.2.4.1** *Specialization subjects (e.g. whole specialization)* blocks (min. 60 ECTS points):

No.	Course/ group of courses code	Name of course/group of	W	eekly r	number	of ho	urs	Learning effect		ber of urs	Nı	umber of E points	CTS	Form <sup>2</sup> of		C	ourse/group	of courses	
		courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0058W	Business Intelligence	1					K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z		DN		
2	W08ZZZ-SM0058L	Business Intelligence			1			K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	
3	W08ZZZ-SM0060W	E-economy	1					K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z		DN		
4	W08ZZZ-SM0060C	E-economy		1				K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	
5	W08ZZZ-SM0062W	E-marketing	1					K2 ZARZ W16	15	30	1	1	0.7	T/Z	Z		DN		
6	W08ZZZ-SM0062C	E-marketing		1				K2_ZARZ_U23 K2_ZARZ_K06 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z		DN	P	
7	W08ZZZ-SM0059W	Web applications	2					K2_ZARZ_W16	30	90	3	3	1.4	T/Z	Е		DN		

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

8	W08ZZZ-SM0059L	Web applications		2		K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z	DN	P	
9	W08ZZZ-SM0066W	Software poduct quality	1			K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
10	W08ZZZ-SM0066L	Software poduct quality		1		K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	
11	W08ZZZ-SM0063W	Computer analysis of business decisions	1			K2 ZARZ W16	15	30	1	1	0.7	T/Z	Z	DN		
12	W08ZZZ-SM0063L	Computer analysis of business decisions		1		K2_ZARZ_W10  K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN	P	
13	W08ZZZ-SM0067W	Business computer applications	1			K2_ZARZ_U25 K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
14	W08ZZZ-SM0067L	Business computer applications		1		K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	
15	W08ZZZ-SM0068W	Data Mining Methods	1			K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
16	W08ZZZ-SM0068P	Data Mining Methods			1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	Р	
17	W08ZZZ-SM0061W	Artificial intelligence methods	1			K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
18	W08ZZZ-SM0061L	Artificial intelligence methods		1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z	DN	P	
19	W08ZZZ-SM0064W	Modeling of business processes in the organization	2			K2_ZARZ_W16	30	90	3	3	1.4	T/Z	Е	DN		
20	W08ZZZ-SM0064L	Modeling of business processes in the organization		2		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z	DN	P	
21	W08ZZZ-SM0065W	Optimization of decisions	1			K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
22	W08ZZZ-SM0065L	Optimization of decisions		1		K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	
23	W08ZZZ-SM0041D	MSc Thesis I			2	K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06	30	180	6	6	3.0	T/Z	Z	DN	P	

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K09										
24	W08ZZZ-SM0045D	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K09	30	540	18	18	9.0	T/Z	Z	DN	P	
25	W08ZZZ-SM0069W	Decision support systems	1					K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z	DN		
26	W08ZZZ-SM0069L	Decision support systems			1			K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	Р	
		Total	14	2	11	5	0		480	1800	60	60	31.6					

#### **4.2.4.2** *Legal and economic block* (min. 4.... ECTS points):

No.	Course/ group of courses code	Name of course/group of			ırs	Learning effect	Numl ho		Number of ECTS points		Form <sup>2</sup> of		C	ourse/group	of courses	,			
		courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ-SM2PIP01BPE- 21Z	Legal and Economic block	2	2	0	0	0	K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8						
1	W08ZZZ-SM0094W	Economic environment of business	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ-SM0094C	Economic environment of business		1					15	30	1	1	0.7	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ-SM0095W	Legal and economic aspects of information and knowledge management	1					15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ-SM0095C	Legal and economic aspects of information and knowledge management		1				15	30	1	1	0.7	T/Z	Z	DN	Р	S
5	W08ZZZ-SM0092W	Legal and economic conditions for business in the market of the European Union	1					15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ-SM0092C	Legal and economic conditions for business in the market of the European Union		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
7	W08ZZZ-SM0093W	Agreement in trade	1					15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ-SM0093C	Agreement in trade		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	2	2	0	0	0	60	120	4	4	2.8					

#### **4.2.4.3** *Psychological and social block* (min. 2.... ECTS points):

No.	Course/ group of courses code	Name of course/group of	W	eekly 1	numbei	of ho	ırs	Learning effect		ber of urs	Ni	umber of E points	CTS	Form <sup>2</sup> of		C	ourse/group	of courses	
		courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ-SM300001BPS-21Z	Psycho-sociological block	1	0	0	0	1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K02 K2_ZARZ_K08	30	60	2	2	1.4						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

		Total	1	0	0	0	1	30	60	2	2	1.4					
14	W08ZZZ-SM0106S	Team Management					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
13	W08ZZZ-SM0106W	Team Management	1					15	30	1	1	0.7	T/Z	Z	DN		S
12	W08ZZZ-SM0105S	Problem Resolving in Organization					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
11	W08ZZZ-SM0105W	Problem Resolving in Organization	1					15	30	1	1	0.7	T/Z	Z	DN		S
10	W08ZZZ-SM0113S	Creativity and Entrepreneurship Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
9	W08ZZZ-SM0113W	Creativity and Entrepreneurship Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ-SM0104S	Cognitive Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
7	W08ZZZ-SM0104W	Cognitive Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ-SM0103S	Economic Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
5	W08ZZZ-SM0103W	Economic Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
4	W08ZZZ-SM0102S	Psychology of Decision and Risk					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
3	W08ZZZ-SM0102W	Psychology of Decision and Risk	1					15	30	1	1	0.7	T/Z	Z	DN		S
2	W08ZZZ-SM0101S	Organizational Communication					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
1	W08ZZZ-SM0101W	Organizational Communication	1					15	30	1	1	0.7	T/Z	Z	DN		S

#### **Altogether for specialization blocks:**

<sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
17	4	11	5	3	570	2070	66	66	35.8

# 4.3 Training block - concerning principles of training crediting - attachment no. ...

#### Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training				
Number of ECTS points	Number of	ECTS points for BU¹ classes	Training crediting mode	Code
Training duration	on	Traini	ng objective	

#### 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

Type of diploma dissertation	Licencjat / inżyni	er / magister / magister inżynier*
Number of diploma dissertation semesters	Number of ECTS points	Code
	1	W08ZZZ-SM0040S Seminar I
3	2	W08ZZZ-SM0042S Seminar II
	6	W08ZZZ-SM0041D MSc Thesis I

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	18	W08ZZZ-SM0045D	MSc Thesis II								
Cha	racter of diploma dissert	ation									
Literature	e survey, project, computer pr	ogram, etc.									
Number of BU <sup>1</sup> ECTS points 13.4											

#### 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	e.g. examination, progress/final test
class	e.g. progress/final test
laboratory	e.g. pretest, report from laboratory
project	e.g. project defence
seminar	e.g. participation in discussion, topic presentation, essay
diploma dissertation	prepared diploma dissertation

#### 6. Range of diploma examination

- 1. Theories of regulation and their connection with classical schools of thought in economics.
- 2. Determinants of economic growth and development in Keynesian and neoliberal economy.
- 3. The influence of competition policy and industrial policy on the company's activities on the EU market.
- 4. Pan-European organizational and legal forms of running a business.
- 5. Economic and legal tools and economic effects of breaking up monopolies.
- 6. Methods of strategic analysis of the organization's environment and the organization's potential.
- 7. The essence of strategic management. Schools of thought and trends in strategic management.
- 8. Institutional and financial instruments supporting the competitiveness and innovation of enterprises in EU.
- 9. Forms of internationalization of the company's activity.
- 10. Organizational growth and development model.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 11. Features of an intelligent organization.
- 12. Knowledge management in an organization goals, functions, models and instruments examples.
- 13. Knowledge management strategies.
- 14. Institutional and non-institutional forms of intellectual property protection.
- 15. Methods and application of cost calculation.
- 16. Value of the enterprise methods of calculation .
- 17. Strategic and operational controlling instruments.
- 18. Integrated Scorecard as a method of monitoring the achievement of strategic goals.
- 19. Roles and tasks of the budgeting process in the enterprise.
- 20. Characterize the measures of creating value added.
- 21. Methods of measuring and evaluating the achievements of the organization as a whole and in relation to its individual parts (centers of responsibility).
- 22. Management by objectives idea, stages, and conditions.
- 23. Contemporary and classical structural solutions of the management concepts- similarities and differences.
- 24. The essence, concepts and organizational solutions of controlling.
- 25. VBM Value Based Management.
- 26. Psychological contract as a determinant of organizational culture.
- 27. The subject and scope of unfair commercial practices.
- 28. The importance of the code of good practice in the relationship between economic organization and consumer.
- 29. The essence of leadership in an organization. Leadership concepts and styles.
- 30. Conflict management; the concept of conflict, sources and types of conflicts in the organization, methods of solving interpersonal and intergroup conflicts.
- 31. The decision-making process, individual and situational determinants.
- 32. The influence of motivation on human behavior in the context of achieving the goals of the group and organization.
- 33. Instruments of intra-organizational entrepreneurship.
- 34. Psychological aspects of resistance to changes and ways of overcoming them.
- 35. Factors advantaging and blocking the processes of creative thinking. Creative problem solving techniques.
- 36. Methods of operational research purpose and scope of applications in management examples
- 37. The importance of the level of significance in testing statistical hypotheses.

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 38. Components of time series. Forecasting methods based on time series.
- 39. Simulation methods. The course of the simulation process. Objectives of simulation studies examples of applications.
- 40. Typical strategies of management informatisation on the example of an industrial enterprise.
- 41. Computer network protocols: types, application and protection.
- 42. Programming technologies for building web applications: possibilities, advantages and disadvantages.
- 43. Ways of using network technologies in ERP and CRM applications.
- 44. Ways of using network technologies in marketing of an organization.
- 45. Graphical and numerical methods of source data description and presentation.
- 46. Methods and tools for quantitative and qualitative data analysis.
- 47. Ways of including random data in decision models.
- 48. Data mining techniques and their applications.
- 49. The subject scope and techniques used in business analytics and business intelligence.
- 50. Basic categories of decision support systems.
- 51. Decision support systems and business intelligence systems.
- 52. The selection of computer-aided decision-support approaches / methods depending on the decision problems structure degree.
- 53. The use of spreadsheets to support the analysis of business decisions and economic effects.
- 54. Methods of decisions making in conditions of uncertainty and risk.
- 55. Methods of difficult optimization problems solving.
- 56. Business models on the B2C market.
- 57. The use of electronic tools in purchases on the B2B market.
- 58. Quality characteristics of an IT product.
- 59. Functions of basic models (diagrams) described with the use of UML.
- 60. Definition of class diagram, types of class diagrams and types of relationships between classes.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

No.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 8. Plan of studies (attachment no. 3)

Approved by faculty student government legislative body:

28.10.2922 Date

name and surname, signature of student representative

DZIEKAN

28.10.2022

Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# **PLAN OF STUDIES**

**FACULTY Faculty of Management** 

**MAIN FIELD OF STUDY: Management** 

EDUCATION LEVEL second-level studies

FORM OF STUDIES: full-time studies

**PROFILE:** general academic

**SPECIALIZATION** Technologie Informacyjne w Zarządzaniu (TIZ)

**LANGUAGE OF STUDY: Polish** 

In effect since 2023/2024

<sup>\*</sup>delete as applicable

# Plan of studies structure (optionally) \_\_\_\_\_ 1) in ECTS point layout

	_			_			
		Operations	Research				
Work Environment Phy	sics II	150	5	Value Based N	Management		
Simulation Modelin	ng	100	J	150	5		
120	4	Econometric Modellin	ng and Forecasting	Foreign las	nguage I		
Management Accoun	nting	120	4	Foreign lar	nguage II		
90	3	Contro	lling	_			
Psychology in manage	ement	120	4	60	2		
60	2			Psycho-sociol	ogical block		
		Legal and Eco	nomic block	60	2		
Management Conce	epts	120	4	E-mark	teting		
180	6			60	2		
		Business In	telligence	Computer analysis of	business decisions		
Statistics and Economic	etrics	60	2	60	2	Business compu	ter applications
		E-econ	iomy	Optimization	of decisions	90	3
150	3	60	2	90	3	Decision sup	port systems
	formation					90	3
systems		Web appl	ications	_	•	Software pro	duct quality
90	3	150	5	150	5	90	3
						Data minin	g methods
Strategic Manageme	ent	Artificial intellig	gence methods	MSc Th	nesis I	90	3
150	5	90	3	180	6	MSc Ti	hesis II
		Diploma s	eminar I	Semin	ar II	540	18
I		II		III	[	I	V
	Simulation Modeli 120  Management Accour 90  Psychology in manage 60  Management Conce 180  Statistics and Econom 150  Integrated management in systems 90  Strategic Managem 150	Management Accounting           90         3           Psychology in management         60         2           Management Concepts         180         6           Statistics and Econometrics         150         5           Integrated management information systems         90         3           Strategic Management         150         5	Simulation Modeling	Nork Environment Physics II	North Environment Physics II	North Environment Physics II	Nork Environment Physics II

2) in hourly layout

	_ 2) in nourly layo	<u>ut</u>	_	
22		Operations Research		
21	Work Environment Physics II	10200 E	Value Based Management	
20	Simulation Modeling	1	10010 E	
19	10100	Econometric Modelling and Forecasting	Foreign language I	
18	Management Accounting	10010	Foreign language II	
17	11000	Controlling	03000	
16	Psychology in Management	10010	0.5000	
15	10010		Psycho-socialogical block	
14		Legal and Economic block	10001	
13	Management Concepts	22000	E-marketing	
12	20011 E		11000	
11	_	Business Intelligence	Computer analysis of business decisions	
10	Statistics and Econometrics	10100	10100	Business computer applications
9	20100	E-economy	Optimization of decisions	10100
8	20100	11000	10100	Decision support systems
7	Integrated management information		M. J. III.	10100
6	systems	Web applications	Modelling of business processes in the organization	Software product quality
5	20100	20200 E	20200 E	10100
4		1		Data mining methods
3	Strategic Management	Artificial intelligence methods	MSc Thesis I	10010
2	1	10100	[2]	MSc Thesis II
1	20011 E	Seminar I	Seminar II	[2]
	I	II	III	IV

# 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

#### Semester 1

Obligatory courses / groups of courses Number of ECTS points ...30.....

No.	Course/	Name of course/group of	W	/eekly	numbe	r of ho	urs	Learning effect		ber of urs	Nun	nber of E points	ECTS	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classe s	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0030W	Management Concepts	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ-SM0030P	Management Concepts				1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z		DN	P	K
3	W08ZZZ-SM0030S	Management Concepts					1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	Р	K
4	W08ZZZ-SM0031W	Simulation Modeling	1					K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		K
5	W08ZZZ-SM0031L	Simulation Modeling			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	K
6	W08ZZZ-SM0032W	Psychology in Management	1					K2_ZARZ_W11 K2_ZARZ_W10 K2_ZARZ_W12 K2_ZARZ_W16	15	30	1	1	0.7	T/Z	Z		DN		K
7	W08ZZZ-SM0032S	Psychology in Management					1	K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04	15	30	1	1	0.7	T/Z	Z		DN	P	K

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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								K2_ZARZ_K06 K2_ZARZ_K08										
8	W08ZZZ-SM0033W	Management Accounting	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	30	1	1	0.7	T/Z	Z	DN		K
9	W08ZZZ-SM0033C	Management Accounting		1				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
10	W08ZZZ-SM0034W	Statistics and Econometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Z	DN		PD
11	W08ZZZ-SM0034L	Statistics and Econometrics			1			K2_ZARZ_U03 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	Р	PD
12	W08ZZZ-SM0036W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	60	2	2	1.4	T/Z	Z	DN		K
13	W08ZZZ-SM0036L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	K
14	W08ZZZ-SM0029W	Work Environment Physics II	1					K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z	DN		PD
15	W08ZZZ-SM0035W	Strategic Management	2					K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W07	30	90	3	3	1.4	T/Z	Е	DN		K
16	W08ZZZ-SM0035P	Strategic Management				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U09 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	Р	К
17	W08ZZZ-SM0035S	Strategic Management					1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U08	15	30	1	1	0.7	T/Z	Z	DN	Р	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

							K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K06								
	Total	12	1	3	2	3		315	900	30	30	14.7			

Optional courses / groups of courses (minimum ..... hours in semester, ...... ECTS points)

No.	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**Altogether in semester** 

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
12	1	3	2	3	315	900	30	30	14.7

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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#### Semester 2

Obligatory courses / groups of courses Number of ECTS points ...25.....

	satory courses is	toups of courses		114	IIIIV	JI UI	EC.	19 homes											
No.	Course/	Name of course/group of	W	eekly 1	numbe	r of ho	urs	L	Num ho	ber of urs	Nun	nber of E points	CTS	Form <sup>2</sup> of		С	ourse/group	of courses	
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classe s	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0058W	Business Intelligence	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ-SM0058L	Business Intelligence			1			K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ-SM0037W	Operations research	1					K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е		DN		PD
4	W08ZZZ-SM0037L	Operations research			2			K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
5	W08ZZZ-SM0060W	E-economy	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ-SM0060C	E-economy		1				K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
7	W08ZZZ-SM0059W	Web applications	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е		DN		S
8	W08ZZZ-SM0059L	Web applications			2			K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z		DN	P	S
9	W08ZZZ-SM0038W	Controlling	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		K
10	W08ZZZ-SM0038P	Controlling				1		R2_ZARZ_U02 R2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U07 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U28 K2_ZARZ_U28 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	z		DN	Р	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09										
11	W08ZZZ-SM0061W	Artificial intelligence methods	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
12	W08ZZZ-SM0061L	Artificial intelligence methods			1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z	DN	Р	S
13	W08ZZZ-SM0039W	Econometric Modelling and Forecasting	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		PD
14	W08ZZZ-SM0039P	Econometric Modelling and Forecasting				1		K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U11 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 ZARZ_U22 ZARZ_U26 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	z	DN	Р	PD
		Total	8	1	6	2	1	KL_EMIKE_KO	255	750	25	25	11.9					

Optional courses / groups of courses (minimum ...75... hours in semester, ...5.... ECTS points)

	· · · · · · · · · · · · · · · · · · ·	ups of courses (mini							,										
No.	Course/	Name of course/group of	W	eekly 1	numbei	of ho	urs	Learning effect		ber of urs	Νι	umber of E points	CTS	Form <sup>2</sup> of		Co	ourse/group	of courses	l
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0040S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	S
2	ZZZ-SM2PIP01BPE- 21Z	Legal and Economic block	2	2				K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8	T/Z	z		DN		S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

W08ZZZ-SM0094W	Economic environment of business	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0094C	Economic environment of business		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0095W	Legal and economic aspects of information and knowledge management	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0095C	Legal and economic aspects of information and knowledge management		1				15	30	1	1	0.7	T/Z	Z	DN	Р	S
W08ZZZ-SM0092W	Legal and economic conditions for business in the market of the European Union	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0092C	Legal and economic conditions for business in the market of the European Union		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0093W	Agreement in trade	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0093C	Agreement in trade		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
1	Total	2	2	0	0	0	75	150	5	5	3.5					

# Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

10	3	6	2	1	330	900	30	30	15.4

# Semester 3

Obligatory courses / groups of courses Number of ECTS points ...17.....

No.	Course/	Name of course/group of	W	eekly 1	number	of ho	urs	Learning effect	Num ho	ber of urs	Nι	umber of E points	ECTS	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0062W	E-marketing	1					K2 ZARZ W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ-SM0062C	E-marketing		1				K2_ZARZ_U23 K2_ZARZ_K06 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ-SM0063W	Computer analysis of business decisions	1					K2 ZARZ W17	15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ-SM0063L	Computer analysis of business decisions			1			K2_ZARZ_U22 K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ-SM0064W	Modelling of business processes in the organization	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е		DN		S
6	W08ZZZ-SM0064L	Modelling of business processes in the organization			2			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	S
7	W08ZZZ-SM0065W	Optimization of decisions	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ-SM0065L	Optimization of decisions			1			K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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9	W08ZZZ-SM0043W	Value Based Management	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_U02	15	90	3	3	0.7	T/Z	Е	DN		K
10	W08ZZZ-SM0043P	Value Based Management				1		K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	Р	K
		Total	6	1	4	3	1		180	510	17	17	8.4					

Optional courses / groups of courses (minimum ...135... hours in semester, ...13.... ECTS points)

No.	Course/	Name of course/group of			number			Learning effect		ber of	Nι	umber of E		Form <sup>2</sup> of		C	ourse/group	of courses	i
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO-SM0001	Foreign language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	Т	Z	0			КО
2	SJO-SM0002	Foreign language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	Т	Z	0			КО
3	W08ZZZ-SM0041D	MSc Thesis I				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	180	6	6	3.0	T/Z	z		DN	P	S
4	W08ZZZ-SM0042S	MSc Thesis II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S
5	ZZZ-SM300001BPS- 21Z	Psycho-sociological block	1				1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_K02 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN		S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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1	Total	1	4	0	2	2	135	390	13	10	7.1					1
W08ZZZ-SM0106S	Team Management					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0106W	Team Management	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0105S	Problem Resolving in Organization					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0105W	Problem Resolving in Organization	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0113S	Creativity and Entrepreneurship Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0113W	Creativity and Entrepreneurship Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0104S	Cognitive Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0104W	Cognitive Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0103S	Economic Psychology					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0103W	Economic Psychology	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0102S	Psychology of Decision And Risk					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0102W	Psychology of Decision And Risk	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ-SM0101S	Organizational Communication					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ-SM0101W	Organizational Communication	1					15	30	1	1	0.7	T/Z	Z	DN		S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether in semester

	Total 1	number o			Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
7	5	4	3	2	315	900	30	27	15.5

### Semester 4

Obligatory courses / groups of courses Number of ECTS points ...12.....

No.	Course/	Name of course/group of	W	eekly r	number	of hou	ırs	Learning effect		ber of urs	Nı	umber of E points	ECTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0066W	Software product quality	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ-SM0066L	Software product quality			1			K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z		DN	P	S
3	W08ZZZ-SM0067W	Business computer applications	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ-SM0067L	Business computer applications			1			K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z		DN	P	S
5	W08ZZZ-SM0068W	Data mining methods	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ-SM0068P	Data mining methods				1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	Р	S

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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7	W08ZZZ-SM0069W	Decision support systems	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ-SM0069L	Decision support systems			1			K2_ZARZ_U23K 2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	0.7	T/Z	Z	DN	P	S
		Total	4	0	3	1	0		120	900	12	12	5.6					

Optional courses / groups of courses (minimum ...30... hours in semester, ...18.... ECTS points)

No.		•							Numl	ner of	Nı	umber of E	CTS						
110.	Course/	Name of course/group of	W	eekly r	numbei	r of hou	urs	Learning effect		urs	111	points	CIB	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ-SM0045D	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K07	30	540	18	18	9.0	T/Z	Z		DN	P	S
		Total	0	0	0	2	0		30	540	18	18	9.0						

Altogether in semester

		number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
4	0	3	3	0	150	900	30	30	14.6

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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# 2. Set of examinations in semestral arrangement

Course / group of courses code	Names of courses / groups of courses ending with examination	Semester
W08ZZZ-SM0030W	Management Concepts	1
W08ZZZ-SM0035W	Strategic Management	1
W08ZZZ-SM0037W	Operations Research	2
W08ZZZ-SM0059W	Web Applications	2
W08ZZZ-SM0064W	Modelling of Business Processes in The Organization	3
W08ZZZ-SM0043W	Value Based Management	3

# 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	11
2	16
3	9
4	0

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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Opinion of student government legislative body

28.10.2022

Date

Name and surname, signature of student representative

28.10.2022

debab inż Katarovija Tworek, prof. uczelni

Date Dean's signature

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# DESCRIPTION OF THE PROGRAM OF STUDIES

Main field of study	Management	Profile	general academic
Level of studies	second	Form of studies	full-time studies

# 1. General description

1.1 Number of semesters:4	1.2 Total number of ECTS points necessary to complete studies at a given level:120
1.3 Total number of hours:1125	1.4 Prerequisites (particularly for second-level studies):  First-cycle studies completed
	According to the resolution No. 151/11/2020-2024 of PWr Senate from 17 June 2021 and resolution No. 26/22/2020- 2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains professional degree of: magister	1.6 Graduate profile, employability:  The graduate of the studies has advanced specialist knowledge in the field of management sciences in the field of: quantitative models and methods, integrated IT systems, and most of all, modern concepts and methods of management, planning and monitoring of the company's performance as well as the functioning, development and strategic renewal of the organization. Graduates are capable of abstract thinking and critical understanding of knowledge, enabling them to identify, describe, analyze and interpret complex processes and problems of the organization and its environment. Has the ability to integrate knowledge from various fields

(economics, psychology, law) and use IT and mathematical tools in order to make a comprehensive diagnosis of the situation and create innovative solutions to problems in the work environment.

Graduates are prepared to work as independent entrepreneurs, managers, specialists and consultants by developing advanced skills of identifying, formulating and solving problems in conditions of complexity and uncertainty of the environment, combined with the ability to select analytical methods and tools. Has the ability to identify and solve management problems that go beyond one function, process and enterprise. He can analyze the costs of activities, analyze and interpret the effectiveness of processes in the enterprise. He/she can apply advanced organizational and instrumental process controlling solutions.

The graduate has extended knowledge and skills in the field of process management. Can identify, analyze, evaluate and design business processes, including processes of a selected specialty, incl. research and development, customer relationship management, operational and logistics processes. He knows the methods, techniques and tools (including IT) for modeling business processes and process management. He/she is prepared to implement projects in the form of a project, knows the most important project management methodologies as well as methods and tools for managing changes in the enterprise.

These skills qualify the graduate to perform managerial and substantive functions in the area of business process management, in particular, the process owner, business process analyst, business process specialist and process management consultant. They prepare the graduate to take managerial functions, including the process owner responsible for supervising the overall process of the selected specialization, acting as an

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expert and consultant for modeling and optimizing business processes, initiating and conducting projects for implementing the process approach to business management and running own business, both at home and abroad. 1.8 Indicate connection with University's mission and its 1.7 Possibility of continuing studies: development strategy: Eligibility to apply for admission to a doctoral school, non-Education in the field of Management is conducted in the field of social sciences, but it is directly part of the mission and strategy of a technical degree postgraduate programmes university. Management graduates acquire business, analytical, social and technical competences. The education program is in line with the University's mission and strategy in the field of: Shaping creative, critical and tolerant graduates by emphasizing the development of appropriate skills and attitudes; Striving for high-quality education and creating conditions for free discussion and criticism with respect for truth for students of Management and teaching staff; Cultivate the values and traditions of comprehensive cooperation with the University's stakeholders, through the participation of Management students in scientific conferences and the Erasmus program, and cooperation with employers through practical forms of classes, implemented in the form of projects in specific institutions; Striving to obtain a worthy place in the field of training specialists in the field of management among domestic and foreign universities, by emphasizing the professionalism and hard skills of graduates. According to the principle adopted at Wrocław University of Science and Technology, studies in the field of Management have a general academic profile. The curriculum meets all the requirements resulting from applicable law, including the Polish Qualifications Framework in the field of social sciences.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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The education program at the Management faculty is unique. Like the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates the natural - in economic practice - complementarity of technical and economic education, enriched with an IT module.

The regional roots of the University mean that the educational program in the field of Management creates conditions and forces students to systematically contact various organizations throughout the teaching process.

The quality of education in the didactic offer at the Faculty is systematically improved. This is achieved thanks to the scientific development of employees and their teaching competences, as well as thanks to the systematic expansion of the Faculty's infrastructure, including the modernization of rooms as well as teaching and laboratory aids, as well as software updates.

The education program implemented at the second degree of studies in the field of Management includes a set of effects and the corresponding substantive content of education, enabling graduates to effectively compete on the labor market. Students are prepared to continue their studies at the third degree and to conduct their own research. Graduates are also aware of the need to constantly act for their own professional development in cooperation with their home university.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study: W (knowledge) =17, U (skills) = 23, K (competences) = 9, W + U + K = 49
  - 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

```
D1 (major) ....... (this number must be greater than half the total number of learning outcomes)
```

D2 .....

D3 .....

D4 .....

- 2.3 For the main field of study assigned to more than one discipline percentage share of the number of ECTS points for each discipline:
  - D1 .....% ECTS points
  - D2 .....% ECTS points
  - **D3** .....% **ECTS** points
  - **D4 .....% ECTS points**
- 2.4a. For the general academic profile of the main field of study the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned DN (must be greater than 50% of the total number of ECTS points from 1.2) 117 ECTS
- 2.4b. For the practical profile of the main field of study the number of ECTS points assigned to the classes shaping practical skills (must be greater than 50% of the total number of ECTS points from 1.2)
  - 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

The assumed learning outcomes for second-cycle studies correspond to the following requirements set for employees by employers on the labor market:

- Employees' understanding of the strategic perspective of the company's operation, in particular the assessment and shaping of its competitiveness and value (employers medium and large enterprises);
- Independence of employees, but also the ability to fulfill various roles in the team in terms of diagnosing, proposing solutions and implementing them in the functional areas of the enterprise adequately to the completed specialization (employers medium and large enterprises);

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- Inspiring and selecting as well as implementing modern management methods and techniques as well as selected IT tools;
- Ability to learn and share knowledge with others, as well as creativity and openness to innovation.

The education program in the field of Management at second-cycle studies and many years of experience of the teaching staff create the conditions for graduates to achieve the assumed learning outcomes and meet the above-mentioned requirements formulated by employers.

2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU¹ code) 60,9 ECTS

#### 2.7. Total number of ECTS points, which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	16
Number of ECTS points for optional subjects	0
Total number of ECTS points	16

# **2.8.** Total number of ECTS points, which student has to obtain from practical classes, including project and laboratory classes (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	21
Number of ECTS points for optional subjects	51
Total number of ECTS points	72

# 2.9. Minimum number of ECTS points, which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O) 3 ECTS points

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# 2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points) 72 ECTS points

#### 3. Description of the process leading to learning outcomes acquisition:

The process leading to the achievement of the assumed learning outcomes includes active participation in classes organized at the university in a traditional and remote form: lectures, exercises, laboratories, projects and seminars, as well as independent studies allowing for consolidation, supplementation and extension of knowledge. The curriculum implemented in the field of study creates conditions and forces students to systematically contact various organizations throughout the teaching process. If necessary, the student may take advantage of individual consultations.

# 4. List of education blocks:

# 4.1. List of obligatory blocks:

# 4.1.1 List of general education blocks

**4.1.1.1** *Liberal-managerial subjects* block (min. ..... ECTS points):

No.	Course/	Name of course/group of courses	V	efi				Learning		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# **4.1.1.2** Foreign languages block (min. ...... ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

No.	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Num ho	ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	3
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec					effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# **4.1.1.3** *Sporting classes* block (0 ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		ber of urs	Numb	er of ECTS	5 points	Form <sup>2</sup> of		Co	ourse/group	of courses	3
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

		7.1.1.7 Injointation technology		-0	(		201,	Pom	· / •										
No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# Altogether for general education blocks

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

# 4.1.2 List of basic sciences blocks

#### 4.1.2.1 Mathematics block

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

N	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
0		(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0037W	Operations Research	1					K2_ZARZ_ W13	15	90	3	3	0.7	T/Z	Е		DN		PD
2	W08ZZZ- SM0037L	Operations Research			2			K2_ZARZ_ U10 K2_ZARZ_ U12 K2_ZARZ_ K01 K2_ZARZ_ K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1					K2_ZARZ_ W06 K2_ZARZ_ W08 K2_ZARZ_ W13	15	60	2	2	0.7	T/Z	Z		DN		PD
4	W08ZZZ- SM0039P	Economteric Modelling and Forecasting				1		K2_ZARZ_ U03 K2_ZARZ_ U04 K2_ZARZ_ U11 K2_ZARZ_ U12 K2_ZARZ_ U14 K2_ZARZ_ U15 K2_ZARZ_ U17 K2_ZARZ_ U17 K2_ZARZ_ U18 K2_ZARZ_ K01 K2_ZARZ_ K02 K2_ZARZ_ K05 K2_ZARZ_ K06 K2_ZARZ_ K08 K2_ZARZ_ K08 K2_ZARZ_ K08 K2_ZARZ_ K08 K2_ZARZ_ K08 K2_ZARZ_ K08	15	60	2	2	0.7	T/Z	Z		DN	P	PD

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

5	W08ZZZ- SM0034W	Statistics and Econometrics	2					K2_ZARZ_ W01 K2_ZARZ_ W02 K2_ZARZ_ W06 K2_ZARZ_ W08 K2_ZARZ_ W13	30	90	3	3	1.4	T/Z	Z	DN		PD
6	W08ZZZ- SM0034L	Statistics and Econometrics			1			K2_ZARZ_ U03 K2_ZARZ_ U04 K2_ZARZ_ U10 K2_ZARZ_ U11 K2_ZARZ_ U11 K2_ZARZ_ U14 K2_ZARZ_ U15 K2_ZARZ_ U17 K2_ZARZ_ U18 K2_ZARZ_ U18 K2_ZARZ_ K01 K2_ZARZ_ K01 K2_ZARZ_ K04 K2_ZARZ_ K05 K2_ZARZ_ K05 K2_ZARZ_ K07 K2_ZARZ_ K07 K2_ZARZ_ K08 K2_ZARZ_ K09	15	60	2	2	0.7	T/Z	Z	DN	Р	PD
		Total	4	0	3	1	0		120	420	14	14	5.6					

### 4.1.2.2 Physics block

No.	Course/	Name of course/group of courses (denote group of courses with symbol		Veekly	numbe	er of ho	ours	Learning effect	Num ho	oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way³ of	Co	ourse/group	of courses	
140.	group of courses code	GK)	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

																scientific activities <sup>5</sup>	
1	W08ZZZ- SM0029W	Work Environment Physics II	1					K2_ZARZ_ W15 K2_ZARZ_ U05 K2_ZARZ_ U22	15	60	2	2	0.7	T/Z	Z	DN	PD
	•	Total	1	0	0	0	0		15	60	2	2	0.7				

4.1.2.3 Chemistry block

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		_																	
		Total																	

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ULL	$\mu$ e		 	_	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	0	3	1	0	135	480	16	16	6.3

# 4.1.3 List of the main field of study blocks

# 4.1.3.1 Obligatory main field of study blocks

	G /			Weekly	y numbe	er of ho	ours		Numbe	er of hours	Nui	mber of ECTS poin	ts	Form <sup>2</sup> of			Course/gro	oup of courses	
No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	lec	cl	lab	p r	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	Unive rsity- wide <sup>4</sup>	Concer ning scienti fic activiti es <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management Concepts	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ- SM0030P	Management Concepts				1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K06 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	К

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ- SM0030S	Management Concepts					1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_U22 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	К
4	W08ZZZ- SM0038W	Controlling	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z	DN		K
5	W08ZZZ- SM0038P	Controlling				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z	DN	P	К
6	W08ZZZ- SM0031W	Simulation Modeling	1					K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z	DN		K
7	W08ZZZ- SM0031L	Simulation Modeling			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
8	W08ZZZ- SM0032W	Management Psychology	1					K2_ZARZ_W10 K2_ZARZ_W11 K2_ZARZ_W12	15	30	1	1	0.7	T/Z	Z	DN		K
9	W08ZZZ- SM0032S	Management Psychology					1	K2_ZARZ_U07 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	Р	K
10	W08ZZZ- SM0033W	Managerial Accounting	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	30	1	1	0.7	T/Z	Z	DN		K
11	W08ZZZ- SM0033C	Managerial Accounting		1				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	Р	К

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_W02										
10	W08ZZZ-	G M	2					K2_ZARZ_W03	30	90	3	2		TD //CZ	Е	DN		17
12	SM0035W	Strategic Management	2					K2_ZARZ_W05	30	90	3	3	1.4	T/Z	E	DN		K
								K2_ZARZ_W06										
								K2_ZARZ_W07										
								K2_ZARZ_U02										
								K2_ZARZ_U03										
								K2_ZARZ_U04										
	W08ZZZ-							K2_ZARZ_U06										
13	SM0035P	Strategic Management				1		K2_ZARZ_U07	15	30	1	1	0.7	T/Z	Z	DN	P	K
	SIVIOUSSE							K2_ZARZ_U08										
								K2_ZARZ_U09										
								K2_ZARZ_U18										
								K2_ZARZ_K01										
								K2_ZARZ_K06										
								K2_ZARZ_U02										
								K2_ZARZ_U03										
								K2_ZARZ_U04										
	W08ZZZ-							K2_ZARZ_U06										
14	SM0035S	Strategic Management					1	K2_ZARZ_U07	15	30	1	1	0.7	T/Z	Z	DN	P	K
	514100555							K2_ZARZ_U08										
								K2_ZARZ_U09										
								K2_ZARZ_U18										
								K2_ZARZ_K01										
								K2_ZARZ_K06										
	W08ZZZ-							K2_ZARZ_W06							-			
15	SM0043W	Value Based Management	1					K2_ZARZ_W07	15	90	3	3	0.7	T/Z	Е	DN		K
								K2_ZARZ_W08										
								K2_ZARZ_W09										
1.0	W08ZZZ-	V. D. 114						K2_ZARZ_U02	1.5		2	2	0.7	m./7	-	DM		***
16	SM0043P	Value Based Management				1		K2_ZARZ_U04	15	60	2	2	0.7	T/Z	Z	DN	P	K
								K2_ZARZ_U08										
								K2_ZARZ_K06										
1.5	W08ZZZ-	Integrated Management Information						K2_ZARZ_W05	20		2	2		m./7	-	DM		**
17	SM0036W	Systems	2					K2_ZARZ_W06	30	60	2	2	1.4	T/Z	Z	DN		K
		,						K2_ZARZ_W09										
			<u> </u>					K2_ZARZ_W14	ļ									
								K2_ZARZ_U13										
								K2_ZARZ_U15 K2_ZARZ_U22										
18	W08ZZZ-	Integrated Management Information			1			K2_ZARZ_U22 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	K
1	SM0036L	Systems			•			K2_ZARZ_K07	1		1	1	"		_	2	-	
								K2_ZARZ_K08										
						<b> </b>				0.60								
		Total	11	1	2	4	3		315	960	32	32	14.7					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 4.1.3.2 ..... block

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	We	eekly	numbe	r of h	ours	Learning effect symbol	Numl ho	ber of urs		Number of ECTS	S points	Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting		Course/group of o	courses	
	courses code	courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	of courses	,	University- wide <sup>4</sup>	Concerning scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# Altogether (for main field of study blocks):

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	1	2	4	3	315	960	32	32	14.7

# 4.2 List of optional blocks

# 4.2.1 List of general education blocks

**4.2.1.1 Liberal-managerial subjects blocks** (min. ..... ECTS points):

_			0				- 1													
	No.	Course/								Numb	er of	Numbe	er of ECTS	noints			C	nurse/grour	of courses	
		group of	Name of course/group of courses (denote group of courses with symbol	V	Veekly	numbe	er of ho	ours	Learning effect	hoi	ırs	rvamoc	or or bern	pomis	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of		ourse/group	or courses	
		courses code	GK)	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

									scientific activities <sup>5</sup>	
	Total									

**4.2.1.2** Foreign languages block (min. .....3..... ECTS points):

	Course/	Name of course/group of courses	W	/eekly	numbe	er of ho	ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign Language I		1				K2_ZARZ_ U15 K2_ZARZ_ U16 K2_ZARZ_ U19 K2_ZARZ_ U20 K2_ZARZ_ U21	15	30	1		0.5	Т	Z	0		P	КО
2	SJO- SM0002	Foreign Language II		3				K2_ZARZ_ U19 K2_ZARZ_ U20 K2_ZARZ_ U21	45	60	2		1.5	Т	Z	0		P	КО
		Total	0	4	0	0	0		60	90	3		2.0						

# **4.2.1.3 Sporting classes block** (0. ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Num ho	oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	1
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total			·		·			·									

**4.2.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
						·				·									
		Total																	

# Altogether for general education blocks:

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	4	0	0	0	60	90	3	0	2.0

# 4.2.2 List of basic sciences blocks

**4.2.2.1** *Mathematics* block (min. ... ECTS points):

		4.2.2.1 Municitatics block (Int			$r \sim P$	0 1. 11.	- , .												
No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

# **4.2.2.2** *Physics* block (min. .... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours		Number of hours	Number of ECTS points	Form <sup>2</sup> of course/gr oup of courses	Way³ of crediting	Course/group of courses
-----	---------	--	------------------------	--	-----------------	-----------------------	--	----------------------	-------------------------

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

group of courses code		lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes		University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total																

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# **4.2.2.3** *Chemistry* **block** (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V							ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of	2	Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

### Altogether for basic sciences blocks:

	Total ı	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

# 4.2.3 List of blocks

### **4.2.3.1 Diploma seminar block** (min. .3... ECTS points):

No.	Course/	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Learni ng	Number of hours	Number of ECTS points	Form <sup>2</sup> of course/	Way³ of	Course/group of courses
-----	---------	--	------------------------	--------------	-----------------	-----------------------	------------------------------------	------------	-------------------------

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	group of courses code		lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	group of courses	creditin g	University- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ SM0040 S	Seminar I					1	K2_ZAR Z_U04 K2_ZAR Z_U16 K2_ZAR Z_U18 K2_ZAR Z_K01 K2_ZAR Z_K01 K2_ZAR	15	30	1	1	0.7	T/Z	Z		DN	P	S
2	W08ZZZ SM0042 S	Seminar II					1	K2_ZAR Z_U04 K2_ZAR Z_U16 K2_ZAR Z_U18 K2_ZAR Z_K01 K2_ZAR Z_K01 K2_ZAR	15	60	2	2	0.7	T/Z	Z		DN	P	S
		Total	0	0	0	0	2		30	90	3	3	1.4						

# Altogether for blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	0	0	0	2	30	90	3	3	1.4

# **4.2.4** List of specialization blocks

<sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# **4.2.4.1** Specialization subjects (e.g. whole specialization) blocks (min. 58. ECTS points):

	Course/		W	-	num ours	ber of	f	Learning		mber of nours	Numb	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of		Course/grou	ip of course	s
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	l a b	pr	s e m	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0044W	International Management	1					K2_ZARZ_W16 K2_ZARZ_W17 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0041D	MSc Thesis I				2		K2_ZARZ_W09 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W10 K2_ZARZ_W16 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_K01	30	180	6	6	3.0	T/Z	Z		DN	Р	s
3	W08ZZZ- SM0045D	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W10 K2_ZARZ_W10 K2_ZARZ_W16 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	30	540	18	18	9.0	T/Z	Z		DN	Р	S
4	W08ZZZ- SM0081W	Small Bussiness Designing	1					K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
5	W08ZZZ- SM0081P	Small Bussiness Designing				1		K2_ZARZ_U23 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	Р	S
6	W08ZZZ- SM0082W	Process Management I - process design methodology and tools	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

7	W08ZZZ- SM0082C	Process Management I - process design methodology and tools		1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07	15	30	1	1	0.7	T/Z	Z	DN	P	S
8	W08ZZZ- SM0082L	Process Management I - process design methodology and tools			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	s
9	W08ZZZ- SM0083W	Process Management II- R&D Processes	1				K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
10	W08ZZZ- SM0083C	Process Management II- R&D Processes		1			K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN	P	S
11	W08ZZZ- SM0085W	Process Management III – CRM and Marketing Strategy	2				K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z	DN		S
12	W08ZZZ- SM0085P	Process Management III – CRM and Marketing Strategy				1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07	15	30	1	1	0.7	T/Z	Z	DN	Р	S
13	W08ZZZ- SM0085S	Process Management III – CRM and Marketing Strategy					K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 I K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	s
14	W08ZZZ- SM0086W	Process Management IV - logistics processes	2				K2_ZARZ_W17	30	90	3	3	1.4	T/Z	E	DN		S
15	W08ZZZ- SM0086L	Process Management IV - logistics processes			1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03	15	60	2	2	0.7	T/Z	Z	DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	SW10084P	Total	14	4	2	10	1		465	1740	58	58	30.9					
24	W08ZZZ- SM0084P	Change and Project Management				1		K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	S
23	W08ZZZ- SM0084W	Change and Project Management	2					K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z	DN		S
22	W08ZZZ- SM0088P	Process Management VI – Improving the Quality of Processes				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	15	60	2	2	0.7	T/Z	Z	DN	P	S
21	W08ZZZ- SM0088C	Process Management VI – Improving the Quality of Processes		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	15	60	2	2	0.7	T/Z	Z	DN	P	S
20	W08ZZZ- SM0088W	Process Management VI – Improving the Quality of Processes	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z	DN		S
19	W08ZZZ- SM0087P	Process Management V - efficiency and effectiveness evaluation				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	S
18	W08ZZZ- SM0087C	Process Management V - efficiency and effectiveness evaluation		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	Р	S
17	W08ZZZ- SM0087W	Process Management V - efficiency and effectiveness evaluation	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
16	W08ZZZ- SM0086P	Process Management IV - logistics processes				1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03	15	30	1	1	0.7	T/Z	Z	DN	P	S

# **4.2.4.2** Legal and economic block (e.g. diploma profile) block (min. 4 ECTS points):

No.	Course/	Name of course/group of courses (denote	Weekly number of	Number of	ours N	Number of ECTS points	Form <sup>2</sup> of	Course/group of courses
NO.		group of courses with symbol <b>GK</b> )	hours				course/gr	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	group of courses code		le c	c 1	l a b	p r	s e m	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM2PIP01B PE-21Z	Legal and economic block	2	2	0	0	0	K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W16 K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K05 K2_ZARZ_K06	60	120	4	4	2.8	T/Z	Z		DN		S
1	W08ZZZ- SM0099W	Institutional and Economic Tools to Support Enterprise	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0099C	Institutional and Economic Tools to Support Enterprise		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0097W	Internationalization of Company Activitie	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0097C	Internationalization of Company Activitie		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0095W	Legal and Economic Problems of Information and Knowledge Management	1						15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ- SM0095C	Legal and Economic Problems of Information and Knowledge Management		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
7	W08ZZZ- SM0100W	Legal and Economic Conditions for Running a Business	1						15	30	1	1	0.7	T/Z	Z		DN		S
8	W08ZZZ- SM0100C	Legal and Economic Conditions for Running a Business		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
		Total	2	2	0	0	0		60	120	4	4	2.8						

# **4.2.4.3** Psycho-sociological block (e.g. diploma profile) block (min. 2 ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Course/	Name of course/group of courses (denote			y nu hour	mber	of	Learning effect		ber of ours	Numb	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of courses	S
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p r	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM2PIP01 BPE-21Z	Psycho-sociological block	1	0	0	0	1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_K02 K2_ZARZ_K08	30	60	2	2	1.4						
1	W08ZZZ- SM0101W	Organizational Communication	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0101S	Organizational Communication					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0102W	Psychology of Decision and Risk	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0102S	Psychology of Decision and Risk					1		15	30	1	1	0.7	T/Z	Z		DN	Р	S
5	W08ZZZ- SM0103W	Economic Psychology	1						15	30	1	1	0.7	T/Z	Z		DN		S
6	W08ZZZ- SM0103S	Economic Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
7	W08ZZZ- SM0104W	Cognitive Psychology	1						15	30	1	1	0.7	T/Z	Z	_	DN		S
8	W08ZZZ- SM0104S	Cognitive Psychology					1		15	30	1	1	0.7	T/Z	Z		DN	P	S
9	W08ZZZ- SM0105W	Problem Resolving in Organization	1						15	30	1	1	0.7	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

10	W08ZZZ- SM0105S	Problem Resolving in Organization					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
11	W08ZZZ- SM0106W	Team management	1					15	30	1	1	0.7	T/Z	Z	DN		S
12	W08ZZZ- SM0106S	Team management					1	15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	1	0	0	0	1	30	60	2	2	1.4					

# **4.2.4.4** *Selective lecture block (e.g. diploma profile)* block (min. 2 ECTS points):

No.	Course/			Weekly number of hours						Number of hours		Number of ECTS points			Form <sup>2</sup> of		(	Course/grou	p of course	s
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	ie c a p e	Learning effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>				
	ZZZ- SM4PIP01W W-21Z	Selective Lecture block	2	0	0	0	•	0		30	60	2	2	1.4	T/Z					
1	W08ZZZ- SM0112W	Innovative Management Methods	2						K2_ZARZ_K04 K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
2	W08ZZZ- SM0113W	Creativity and Entrepreneurship Psychology	2						K2_ZARZ_W16 K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
	,	Total	2	0	0	0	•	0		30	60	2	2	1.4						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### Altogether for specialization blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
19	6	2	10	2	615	1980	66	66	36.5

# 4.3 Training block - concerning principles of training crediting - attachment no. ...

# Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training					
Number of ECTS points	Number of	<b>ECTS</b> points for	BU¹ classes	Training crediting mode	Code
Training duration	n		Traini	ng objective	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

Type of diploma dissertation	Licencjat / inżynier /	/ magister / magister inżynier*
Number of diploma dissertation semesters	Number of ECTS points	Code
3	2 6 <b>W08ZZ</b> W08ZZ	Z-SM0040S Seminar I Z-SM0042S Seminar II Z-SM0041D MSc Thesis I Z-SM0045D MSc Thesis II
	Character of diploma disser	tation
Li	terature survey, project, computer pr	rogram, etc.
Number of BU <sup>1</sup> ECTS points		

# 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	Exam or test - single or multiple choice knowledge test; open-ended questions
class	Colloquium (knowledge test and / or open-ended questions); Written studies in the form of reports - literature studies and case studies, diagnostic and / or project reports - empirical research in real organizations, opinions of representatives of these organizations; Oral presentations using modern means of communication
laboratory	Report on completed tasks, knowledge test

 $<sup>^{1}</sup>BU$  – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes  $^{2}Traditional$  – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

project	Written report documenting the diagnostic and design solution, presentation of the project and its defense.
seminar	Choice - problem formulation - topic; Activity in discussions; in discussion, Written study in the form of a scientific report, essay, "mini" monograph. Oral presentations using modern means of communication
diploma dissertation	A written study in accordance with the applicable requirements for diploma theses, assessed by the tutor and reviewer on the appropriate review form.

## 6. Range of diploma examination

- 1. Theories of regulation and their connection with classical schools of thought in economics.
- 2. Determinants of economic growth and development in Keynesian and neoliberal economy.
- 3. The influence of competition policy and industrial policy on the company's activities on the EU market.
- 4. Pan-European organizational and legal forms of running a business.
- 5. Economic and legal tools and economic effects of breaking up monopolies.
- 6. Methods of strategic analysis of the organization's environment and the organization's potential.
- 7. The essence of strategic management. Schools of thought and trends in strategic management.
- 8. Institutional and financial instruments supporting the competitiveness and innovation of enterprises in EU.
- 9. Forms of internationalization of the company's activity.
- 10. Organizational growth and development model.
- 11. Features of an intelligent organization
- 12. Knowledge management in an organization goals, functions, models and instruments examples.
- 13. Knowledge management strategies.
- 14. Institutional and non-institutional forms of intellectual property protection.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 15. Methods and application of cost calculation.
- 16. Value of the enterprise methods of calculation .
- 17. Strategic and operational controlling instruments.
- 18. Integrated Scorecard as a method of monitoring the achievement of strategic goals.
- 19. Roles and tasks of the budgeting process in the enterprise.
- 20. Characterize the measures of creating value added.
- 21. Methods of measuring and evaluating the achievements of the organization as a whole and in relation to its individual parts (centers of responsibility).
- 22. Management by objectives idea, stages, and conditions.
- 23. Contemporary and classical structural solutions of the management concepts- similarities and differences.
- 24. The essence, concepts and organizational solutions of controlling.
- 25. VBM Value Based Management.
- 26. Psychological contract as a determinant of organizational culture.
- 27. The subject and scope of unfair commercial practices.
- 28. The importance of the code of good practice in the relationship between economic organization and consumer.
- 29. The essence of leadership in an organization. Leadership concepts and styles.
- 30. Conflict management; the concept of conflict, sources and types of conflicts in the organization, methods of solving interpersonal and intergroup conflicts.
- 31. The decision-making process, individual and situational determinants.
- 32. The influence of motivation on human behavior in the context of achieving the goals of the group and organization.
- 33. Instruments of intra-organizational entrepreneurship.
- 34. Psychological aspects of resistance to changes and ways of overcoming them.
- 35. Factors favoring and blocking the processes of creative thinking. Creative problem solving techniques.
- 36. Methods of operational research purpose and scope of applications in management examples
- 37. The importance of the level of significance in testing statistical hypotheses.
- 38. Components of time series. Forecasting methods based on time series.
- 39. Simulation methods. The course of the simulation process. Objectives of simulation studies examples of applications.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 40. Typical strategies of management informatization on the example of an industrial enterprise.
- 41. Large international enterprises distinguishing features, organizational and legal forms and specificity of operation.
- 42. High technology enterprises and network enterprises types, features and principles of functioning in the global economic market.
- 43. Forms of economic activity and business plan elements characteristic for small enterprises.
- 44. Objectives, methods and scope of the analysis of the conditions of functioning for large, small and medium-sized enterprises similarities and differences.
- 45. Conditions of the global economic market influencing the functioning of international enterprises, high technologies and networks.
- 46. Legal and social factors (including cultural ones) influencing the enterprise's internationalization.
- 47. The importance of marketing orientation and customer relationship management (CRM) in the context of contemporary challenges for the marketing activities of enterprises.
- 48. Concepts, processes, methods and decisions relevant to Customer Relationship Management (CRM) and to a marketing strategy.
- 49. The process approach to enterprise management. The essence of the concepts: process organization and process management methods and techniques.
- 50. Measures of logistic customer service goals and types.
- 51. MRP, DRP and LRP systems in supply, production and distribution logistics goals and functions.
- 52. Process approach in designing quality management systems.
- 53. Process validation purpose and course. Situations in which it is assessed examples.
- 54. Goals and course of research and development processes in various types of enterprises and their impact on operating activities.
- 55. Change Management Intervention Models types and conditions.
- 56. Project management methodologies. The role of the project manager.
- 57. Features of efficient teams and the principles of their organization and functioning.
- 58. Innovative HRM management.
- 59. The idea and scope of Activity Based Costing.
- 60. Methods of evaluating the effectiveness of processes.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

No.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)

## 8. Plan of studies (attachment no. 3)

Approved by	faculty student	government	legislative	body:
-------------	-----------------	------------	-------------	-------

28 10, 2022 name and surname, signature of student representative Date

28.6.2022

Date Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU - number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam - enter E, crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

# **PLAN OF STUDIES**

**FACULTY:. Faculty of Management** 

**MAIN FIELD OF STUDY: Management** 

**EDUCATION LEVEL:** second-level studies

FORM OF STUDIES: full-time studies

**PROFILE:** general academic

SPECIALIZATION: ZARZĄDZANIE PROCESAMI PRZEDSIĘBIORSTWA (ZPP)

**LANGUAGE OF STUDY: Polish** 

In effect since 2023/2024

## **Plan of studies structure (optionally)**

# 1) in ECTS point layout

(space for scheme of plan)

23				
22		Operations Research		
21	Work Environment Physics II 60 2	150 5	Value Based Management	
20	Simulation Modeling	Economteric Modelling and Forecasting	150 5	
19	120 4	120 4	Foreign Language I	
18	Managerial Accounting	Controlling		
17	90 3	120 4	Foreign Language II 60 2	
16	Management Psychology		_	
15	60 2	Legal and Economic block	Psycho-sociological block	
14		120 4	60 2	
13	Management Concepts		Selective Lecture block	
12	180 6		30 2	
11		Process Management I - process design methodology and	, T	
10		tools 150 5	Process Management III – CRM and Marketing	Process Management V - efficiency and
9	Statistics and Econometrics 150 5		Strategy	effectiveness evaluation
8	150	Small Bussiness Designing	120 4	120 4
7	Integrated Management Information	60 2		
6	Systems	Process Management II- R&D Processes	Process Management IV -	Process Management VI – Improving the
5	90 3	60 2	logistics processes 180 6	Quality of Processes 180 6
4			•	
3	Strategic Management	Change and Project Management 90 3	MSc ThesisI	International Management. 60 2
2	150 5	Seminar I	Seminar II	MSc ThesisII
1		30 1	60 2	540 18
	I	П	III	IV

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 2) in hourly layout

## (space for scheme of plan)

23 22	]	Operations Research		
21	Work Environment Physics II 10000	10200 E	Value Based Management10010 E	]
20	Simulation Modeling	Economteric Modelling and Forecasting	<u> </u>	
19	10100	10010	Foreign Language I	
18	Managerial Accounting	Controlling		7
17	11000	10010	Foreign Language II O3OOO	
16	Management Psychology			
15	10001	Legal and Economic block	Psycho-sociological block	
14		22000	10001	
13	Management Concepts		Selective Lecture block	
12	20011 E		20000	
11		Process Management I - process design methodology and tools		
10	Statistics and Econometrics	21100 E	Process Management III – CRM and Marketing Strategy	Process Management V - efficiency and
9	20100		20011	effectiveness evaluation 11010
8		Small Bussiness Designing		11010
7	Integrated Management Information	10010		
6	Systems 20100	Process Management II- R&D Processes	Process Management IV - logistics processes	Process Management VI – Improving the Quality of Processes
5	20100	11000	20110 E	21010
4				
3	Strategic Management	Change and Project Management 20010	MSc Thesis I	International Management 10000
2	20011 E		[2]	MSc Thesis II
1		Seminar I OOOO1	Seminar II OOOO1	[2]
	I	II	III	IV

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# 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

## Semester 1

Obligatory courses / groups of courses Number of ECTS points 30

<u> </u>	ngatory co	discs / groups of courses		1411	100	1 01	LECID	OIII	50									
	Course/ group of Name of course/group of courses (denote group of courses with symbol	Name of course/group of courses	Wee	kly ni hou		er of	Learning		nber of lours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/g	Way <sup>3</sup> of	(	Course/grou	p of course	es
No	courses	(denote group of courses with symbol <b>GK</b> )	lec	1 1	l a F	s e m		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	roup of courses	crediting	Univers ity- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0030W	Management Concepts	2				K2_ZARZ_W0 4 K2_ZARZ_W0 5 K2_ZARZ_W0 8	30	90	3	3	1.4	T/Z	Е		DN		K
2	W08ZZZ- SM0030P	Management Concepts			1		K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z		DN	Р	K
3	W08ZZZ- SM0030S	Management Concepts				1	K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z		DN	P	K
4	W08ZZZ- SM0031W	Simulation Modeling	1				K2_ZARZ_W1	15	60	2	2	0.7	T/Z	Z		DN		K

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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5	W08ZZZ- SM0031L	Simulation Modeling			1		K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	К
6	W08ZZZ- SM0032W	Management Psychology	1				K2_ZARZ_W1 1 K2_ZARZ_W1 0 K2_ZARZ_W1 2 K2_ZARZ_W1 6	15	30	1	1	0.7	T/Z	Z	DN		К
7	W08ZZZ- SM0032S	Management Psychology				1	K2_ZARZ_U07 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	К
8	W08ZZZ- SM0033W	Managerial Accounting	1				K2_ZARZ_W0 6 K2_ZARZ_W0 7 K2_ZARZ_W0 8	15	30	1	1	0.7	T/Z	Z	DN		К
9	W08ZZZ- SM0033C	Managerial Accounting		1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	0.7	T/Z	Z	DN	P	K
10	W08ZZZ- SM0034W	Statistics and Econometrics	2				K2_ZARZ_W0 1 K2_ZARZ_W0 2 K2_ZARZ_W0 6 K2_ZARZ_W0 8 K2_ZARZ_W1 3	30	90	3	3	1.4	T/Z	Z	DN		PD
11	W08ZZZ- SM0034L	Statistics and Econometrics			1		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U11 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	z	DN	P	PD

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

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<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

12	W08ZZZ- SM0036W	Integrated Management Information Systems	2					K2_ZARZ_W0 5 K2_ZARZ_W0 6 K2_ZARZ_W0 9 K2_ZARZ_W1 4	30	60	2	2	1.4	T/Z	Z	DN		К
13	W08ZZZ- SM0036L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09	15	30	1	1	0.7	T/Z	Z	DN	P	К
14	W08ZZZ- SM0029W	Work Environment Physics II	1					K2_ZARZ_W1 5 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z	DN		PD
15	W08ZZZ- SM0035W	Strategic Management	2					K2_ZARZ_W0 2 K2_ZARZ_W0 3 K2_ZARZ_W0 5 K2_ZARZ_W0 6 K2_ZARZ_W0 7	30	90	3	3	1.4	T/Z	Е	DN		К
16	W08ZZZ- SM0035P	Strategic Management				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U08 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	Р	K
17	W08ZZZ- SM0035S	Strategic Management					1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U08 K2_ZARZ_U08 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	K
		Total	12	1	3	2	3		315	900	30	30	14.7					

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum ..... hours in semester. ..... ECTS points)

No.	Course/	Name of course/group of courses			numbe		ours	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	1
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University- wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
12	1	3	2	3	315	900	30	30	14.7

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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## Semester 2

Obligatory courses / groups of courses Number of ECTS points 25

ODII	Obligatory Courses / groups of Courses   Number of EC 15 points 25																	
No.	Course/ group of courses	Name of course/group of courses (denote			y nun hours		Learning effect symbol		ber of ours	Numb	er of ECTS	5 points	Form <sup>2</sup> of course/gr oup of	Way <sup>3</sup> of crediting	C	Course/grou	p of course	es
	courses code	group of courses with symbol <b>GK</b> )	le c	a - A		ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	courses	g	Universit y-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>		
1	W08ZZZ- SM0037W	Operations Research	1				K2_ZARZ_W13	15	90	3	3	0.7	T/Z	Е		DN		PD
2	W08ZZZ- SM0037L	Operations Research			2		K2_ZARZ_U10 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0038W	Controlling	1				K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	0.7	T/Z	Z		DN		K
4	W08ZZZ- SM0038P	Controlling				1	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U05 K2_ZARZ_U05 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18	15	60	2	2	0.7	T/Z	Z		DN	P	К
5	W08ZZZ- SM0039W	Economteric Modelling and Forecasting	1				K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	15	60	2	2	0.7	T/Z	Z		DN		PD

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<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

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<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

6	W08ZZZ- SM0039P	Economteric Modelling and Forecasting			1	K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z	DN	P	PD
7	W08ZZZ- SM0081W	Small Bussiness Designing	1			K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
8	W08ZZZ- SM0081P	Small Bussiness Designing			1	K2_ZARZ_U23 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	S
9	W08ZZZ- SM0082W	Process Management I - process design methodology and tools	2			K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е	 DN		S
10	W08ZZZ- SM0082C	Process Management I - process design methodology and tools		1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	Р	s
11	W08ZZZ- SM0082L	Process Management I - process design methodology and tools			1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07	15	30	1	1	0.7	T/Z	Z	DN	Р	S
12	W08ZZZ- SM0083W	Process Management II- R&D Processes	1			K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z	DN		S
13	W08ZZZ- SM0083C	Process Management II- R&D Processes		1		K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN	Р	S
14	W08ZZZ- SM0084W	Change and Project Management	2			K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z	DN		S

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

15	W08ZZZ- SM0084P	Change and Project Management			1		K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	S
		Total	9	2		1		270	750	25	25	12.6					

## Optional courses / groups of courses (minimum 75 hours in semester. 5 ECTS points)

No.	Course/	Name of annual (annual (dans)	W	eekly r of ho		er	Learning effect		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	C	Course/grou	p of course	ès
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c l a b	p r	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	Universit y-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0040S	Seminar I				1	K2_ZARZ_U0 4 K2_ZARZ_U1 6 K2_ZARZ_U1 8 K2_ZARZ_K0 1 K2_ZARZ_K0 8	15	30	1	1	0.7	T/Z	Z		DN	P	S
2	ZZZ- SM2ZPP01 BPE-21Z	Legal and Economic block	2	2			K2_ZARZ_W0 K2_ZARZ_W0 2 K2_ZARZ_W0 3 K2_ZARZ_W1 6 K2_ZARZ_U0 K2_ZARZ_U0 K2_ZARZ_U0 K2_ZARZ_K0 K2_ZARZ_K0 6	60	120	4	4	2.8	T/Z	z		DN		S

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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W08Z SM00		nd Economic Tools to Support	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08Z SM00		nd Economic Tools to Support		1				15	30	1	1	0.7	T/Z	Z	DN	Р	S
W08Z SM00	Internationalia	ration of Company Activitie	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08Z SM00	Internationalia	ration of Company Activitie		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
W08Z SM00	U	nomic Problems of Information and anagement	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08Z SM00	U	nomic Problems of Information and anagement		1				15	30	1	1	0.7	T/Z	Z	DN	P	S
W08Z SM01		nomic Conditions for Running a	1					15	30	1	1	0.7	T/Z	Z	DN		S
W08Z SM01	U	nomic Conditions for Running a		1				15	30	1	1	0.7	T/Z	Z	DN	Р	S
<u>,                                      </u>		Total	2	2	0	0	0	 75	150	5	5	3.5					

**Altogether in semester** 

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	4	3	4	1	345	900	30	30	16.1

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Semester 3

## Obligatory courses / groups of courses

## **Number of ECTS points 15**

	Course/		We	ekly h	nun		of	Learning		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of course	s
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p r	s e m	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0085W	Process Management III – CRM and Marketing Strategy	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
2	W08ZZZ- SM0085P	Process Management III – CRM and Marketing Strategy				1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0085S	Process Management III – CRM and Marketing Strategy					1	K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07	15	30	1	1	0.7	T/Z	Z		DN	Р	S
4	W08ZZZ- SM0086W	Process Management IV - logistics processes	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	E		DN		S
5	W08ZZZ- SM0086L	Process Management IV - logistics processes			1			K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03	15	60	2	2	0.7	T/Z	Z		DN	Р	S
6	W08ZZZ- SM0086P	Process Management IV - logistics processes				1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03	15	30	1	1	0.7	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

7	W08ZZZ- SM0043W	Value Based Management	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W09	15	90	3	3	0.7	T/Z	Е	DN		K
8	W08ZZZ- SM0043P	Value Based Management				1		K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	P	K
		Total	5	0	1	5	2		150	450	15	15	7.0					

# Optional courses / groups of courses (minimum 165 hours in semester. 15. ECTS points)

	Course/	N C (L)	W		ly ni hou		er	Learning		mber of nours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	ıp of course	es
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p r	s e m	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	oup of courses	crediti ng	Universit y-wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	T/Z	Z	О		P	КО
2	SJO- SM0002	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	T/Z	Z	0		P	КО
3	W08ZZZ- SM0041D	MSc Thesis I				2		K2_ZARZ_W06 K2_ZARZ_W06 K2_ZARZ_W10 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01	30	180	6	6	3.0	T/Z	Z		DN	S	S
4	W08ZZZ- SM0042S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

5	ZZZ- SM300001B PS-21Z	Psycho-sociological block	1		1	K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16 K2_ZARZ_U05 K2_ZARZ_U07 K2_ZARZ_K02 K2_ZARZ_K02	30	60	2	2	1.4	T/Z	Z	DN		S
	W08ZZZ- SM0101W	Organizational Communication	1				15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0101S	Organizational Communication			1		15	30	1	1	0.7	T/Z	Z	DN	P	S
	W08ZZZ- SM0102W	Psychology of Decision and Risk	1				15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0102S	Psychology of Decision and Risk			1		15	30	1	1	0.7	T/Z	Z	DN	P	S
	W08ZZZ- SM0103W	Economic Psychology	1				15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0103S	Economic Psychology			1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
	W08ZZZ- SM0104W	Cognitive Psychology	1				15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0104S	Cognitive Psychology			1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
	W08ZZZ- SM0105W	Problem Resolving in Organization	1				15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0105S	Problem Resolving in Organization			1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
	W08ZZZ- SM0106W	Team management	1				15	30	1	1	0.7	T/Z	Z	DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	W08ZZZ- SM0106S	Team management					1		15	30	1	1	0.7	T/Z	Z	DN	Р	S
6	ZZZ- SM3ZPP01 WW-21Z	Selective Lecture block	2						30	60	2	2	1.4	T/Z	Z	DN		S
	W08ZZZ- SM0112W	Innovative Management Methods	2					K2_ZARZ_K04 K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z	DN		S
	W08ZZZ- SM0113W	Creativity and Entrepreneurship Psychology	2					K2_ZARZ_W16 K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z	DN		S
	•	Total	3	4	0	0	1		165	450	15	12	8.5					

Altogether in semester

		number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
8	4	1	5	3	315	900	30	27	15.5

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## Semester 4

Obligatory courses / groups of courses Number of ECTS points 30

ع المال	satory cot	itses / groups of courses		<b></b>		. 0.		CIB pon						1	1				
	Course/	Name of course/group of courses (denote	We	-	nun		of	Learning effect		nber of lours	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	(	Course/grou	p of course	s
No.	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	le c	c 1	l a b	p r	s e m	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediti ng	Universit y-wide <sup>4</sup>	Concernin g scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0044W	International Management	1					K2_ZARZ_W16 K2_ZARZ_W17 K2_ZARZ_K01	15	60	2	2	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0087W	Process Management V - efficiency and effectiveness evaluation	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
3	W08ZZZ- SM0087C	Process Management V - efficiency and effectiveness evaluation		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	S
4	W08ZZZ- SM0087P	Process Management V - efficiency and effectiveness evaluation				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0088W	Process Management VI – Improving the Quality of Processes	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
6	W08ZZZ- SM0088C	Process Management VI – Improving the Quality of Processes		1				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	15	60	2	2	0.7	T/Z	Z		DN	Р	S
7	W08ZZZ- SM0088P	Process Management VI – Improving the Quality of Processes				1		K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	15	60	2	2	0.7	T/Z	Z		DN	Р	S
		Total	4	2	0	2	0		120	360	12	12	5.6						

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum 30 hours in semester. 18 ECTS points)

	Course/	Name of course/group of courses				er of ho		Learning		per of		er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0045D	MSc ThesisII				2		K2_ZARZ_ W06 K2_ZARZ_ W09 K2_ZARZ_ W10 K2_ZARZ_ W16 K2_ZARZ_ U04 K2_ZARZ_ U06 K2_ZARZ_ U14 K2_ZARZ_ U14 K2_ZARZ_ U16 K2_ZARZ_ U17 K2_ZARZ_ U17 K2_ZARZ_ K01 K1 K1 K1 K1 K1 K1 K1 K1 K1 K1 K1 K1 K1	30	540	18	18	9.0	T/Z	Z		DN	P	s
	'	Total	0	0	0	2	0		30	540	18	18	9.0						

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether in semester

	Total number of hours Z				Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
4	2	0	4	0	150	900	30	30	14.6

## 2. Set of examinations in semestral arrangement

Course / group of courses code	Names of courses / groups of courses ending with examination	Semester
W08ZZZ- SM0030W	Management Concepts	1
W08ZZZ- SM0035W	Strategic Management	1
W08ZZZ- SM0037W	Operations Research	2
W08ZZZ- SM0082W	Process Management I - process design methodology and tools	2
W08ZZZ- SM0086W	Process Management IV - logistics processes	3
W08ZZZ- SM0043W	Value Based Management	3

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	11
2	16
3	9
4	0

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Opinion of student government legislative body

28.19, 2022

Name and surname, signature of student representative

25.60.2022

dr hab. inż. Katarzyna IV

Date

Date

Dean's signature

<sup>&</sup>lt;sup>1</sup>BU - number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam - enter E, crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## DESCRIPTION OF THE PROGRAM OF STUDIES

**Main field of study Management** 

Profile general academic

Level of studies second-level studies

Form of studies full-time studies

# 1. General description

1.1 Number of semesters:3	1.2 Total number of ECTS points necessary to complete studies at a given level: <b>90</b>
1.3 Total number of hours:1005	1.4 Prerequisites (particularly for second-level studies): Graduate at least of first-level studies (Eng) According to the resolution No. 151/11/2020-2024 of PWr Senate from 17 June 2021 and resolution No. 26/22/2020- 2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains professional degree of: Master of Science ( <b>magister</b> ) 2nd level qualifications	1.6 Graduate profile, employability:  The graduate of the studies has advanced specialist knowledge in the field of management sciences in the field of: quantitative models and methods, integrated information systems, and above all, modern concepts and methods of management, planning and monitoring of the company's performance as well as the functioning, development and strategic renewal of the organization. Graduates are capable of abstract thinking and critical understanding of knowledge, enabling them to identify, describe, analyze and interpret complex processes and

problems of the organization and its environment. Has the ability to integrate knowledge from various fields (economics, psychology, law) and use IT and mathematical tools in order to make a comprehensive diagnosis of the situation and create innovative solutions to problems in the work environment. Graduates are prepared to work as independent entrepreneurs, managers, specialists and consultants by developing advanced skills of identifying, formulating and solving problems in conditions of complexity and uncertainty of the environment, combined with the ability to select analytical methods and tools.

The graduate has qualifications in the effective identification of economic and legal conditions for the functioning of the company on the market. He/she has extensive knowledge of the company's operations in the context of production, service and quality management. He/she can apply, appropriate to the needs, methods and tools for research and assessment of the state and dynamics of processes in economies and enterprises. Understands the need to manage risk in a corporation. He/she is a specialist in the field of skillful research on the causes and dynamics of phenomena occurring in an enterprise and its environment. The graduate is able to recognize, analyze and draw conclusions regarding management and substantive problems in the enterprise from a managerial position. He/she has the competence to be a leader and a leader who is able to ensure effective communication, negotiation and quick resolution of conflicts in the organization.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

The graduate has competences related to the implementation of management processes in enterprises and successfully combines them with engineering knowledge. He/she can effectively identify the economic and legal conditions of the company's operation on the market. He/she has in-depth knowledge of the operation of enterprises in the field of production, service and quality management. The graduate knows how to use appropriate methods as well as diagnostic and analytical tools in organizational processes. Understands the need to solve problems, taking into account substantive and managerial aspects. He/she has the competence to be a leader and a leader who is able to ensure effective communication, negotiation and quick resolution of conflicts.

# 1.7 Possibility of continuing studies: third-level studies, doctoral studies

1.8 Indicate connection with University's mission and its development strategy:

Education in Management is conducted in the field of social sciences, however it is directly part of the mission and development strategy of a technical university. Management graduates acquire business, analytical, social and technical competences.

The educational program in Management is coherent with the mission of Wrocław University of Science and Technology in the following areas:

- Developing creative, critical and tolerant graduates, as studying a course in management emphasizes on appropriate skills and attitudes development;
- Aiming to provide high quality courses and providing the students of Management and lecturers with conditions enabling open discussion and constructive criticism;

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- Developing the values and tradition of higher education, wide-ranging cooperation with other universities via students taking part in scientific conferences and the Erasmus program, and with employers via practical learning, carried out in the form of projects in specific organizations;
- Aiming to make an impact on the national and international scene in the area of educating specialists in the field of management, by emphasizing the professionalism and hard skills of graduates.

According to the principle adopted at Wrocław University of Science and Technology, studies in the field of Management have a general academic profile. The program satisfies all the conditions stipulated in current legislation and is also in accordance with the Polish Qualifications Framework in the field of social science.

Our programs in Management has have a unique character. In accordance with the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates a natural – in business practice – complementarity of technical science and economics, enriched with the element of computer science.

Due to the regional roots of the University, the educational programs in Management create a framework which ensures that students have systematic contact with enterprises and other institutions during their studies.

In line with the University's development strategy, the quality of education in the didactic offer at the Faculty is systematically improved. This is achieved through the development of our lecturers' research and teaching skills, as well as systematic refurbishment of the department's infrastructure, including modernization of lecture theatres, audio-visual equipment and computer laboratories, and a current software updates.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

The program of masters studies in management develops the
theoretical knowledge and practical skills of students, enabling
graduates to be highly competitiveness on the employment market.
Graduates are able to undertake doctoral studies and carry out their
own research. They also are conscious of the need for constant self-
development in cooperation with their alma mater.

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study: W (knowledge) =17, U (skills) = 23, K (competences) = 9, W + U + K = 49
  - 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

 $D1\ (major)\ ......\ (this\ number\ must\ be\ greater\ than\ half\ the\ total\ number\ of\ learning\ outcomes)$ 

D2 .....

D3 .....

D4 .....

2.3 For the main field of study assigned to more than one discipline - percentage share of the number of ECTS points for each discipline:

D1 .....% ECTS points

D2 .....% ECTS points

D3 .....% ECTS points

D4 .....% ECTS points

- 2.4a. For the general academic profile of the main field of study the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned DN (must be greater than 50% of the total number of ECTS points from 1.2) 87 ECTS
- 2.4b. For the practical profile of the main field of study the number of ECTS points assigned to the classes shaping practical skills (must be greater than 50% of the total number of ECTS points from 1.2)
  - 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

The assumed learning outcomes for the second-cycle studies correspond to the following requirements set for employees by employers on the labor market:

- Employees' understanding of the strategic perspective of the company's operation, in particular the assessment and shaping of its competitiveness and value (employers medium and large enterprises);
- Independence of employees, but also the ability to fulfill various roles in the team in terms of diagnosing, proposing solutions and implementing them in the functional areas of the enterprise adequately to the completed specialization (employers medium and large enterprises);
- -Inspiring and selecting as well as implementing modern management methods and techniques as well as selected IT tools;
- Ability to learn and share knowledge with others, as well as creativity and openness to innovation.
- The education program in the field of Management at second-cycle studies and many years of experience of the teaching staff create conditions for graduates to achieve the assumed learning outcomes and meet the above-mentioned requirements formulated by employers.
- 2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU¹ code) 52,3.... ECTS

2.7. Total number of ECTS points, which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	16
Number of ECTS points for optional subjects	0
Total number of ECTS points	16

# **2.8.** Total number of ECTS points, which student has to obtain from practical classes, including project and laboratory classes (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	17

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Number of ECTS points for optional subjects	36
Total number of ECTS points	53

2.9. Minimum number of ECTS points, which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O)

...3.... ECTS points

2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points)

...49. ECTS points

#### 3. Description of the process leading to learning outcomes acquisition:

The process leading to achievement of the assumed learning outcomes for the main field of studies includes active participation in the classes organized at the university: lectures, classes, laboratories, projects and seminars, as well as self-studies enabling consolidation, supplementation and extension of knowledge. The educational program create a framework which ensures that student has systematic contact with enterprises and other institutions during studies. If necessary, the student may use individual consultations. Learning outcomes in terms of skills are further developed during obligatory student training program.

## 4. List of education blocks:

# 4.1. List of obligatory blocks:

# 4.1.1 List of general education blocks

**4.1.1.1** *Liberal-managerial subjects* block (min. ..... ECTS points):

No.	Course/ group of	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Learning effect	Number of hours		Number of ECTS points			Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	Course/group of courses			
	courses		lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

									scientific activities <sup>5</sup>	
	Total									

## **4.1.1.2** Foreign languages block (min. ...... ECTS points):

No.	No.  Course/  group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Learning	Number of hours		Number of ECTS points			Form <sup>2</sup> of		Course/group of courses			
			lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes		Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	Total																		

# **4.1.1.3** *Sporting classes* block (0 ECTS points):

No.	Course/ group of	Name of course/group of courses	Weekly number of hours					Learning	Number of hours		Numbe	er of ECTS	f ECTS points  Form <sup>2</sup> of			Course/group of courses			
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total									
Total									
									1

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect	Numl ho		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### Altogether for general education blocks

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

## 4.1.2 List of basic sciences blocks

#### 4.1.2.1 Mathematics block

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	W	eekly 1	numbei	of ho	urs	Learning effect		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	i
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0001W	Operations Research	1					K2_ZARZ_W13	15	120	4	4	0.7	T/Z	E				PD
2	W08ZZZ- SM0001L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	90	3	3	1.4	T/Z	Z		DN	P	PD
3	W08ZZZ- SM0007W	Statistics and Econometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	120	4	4	1.4	T/Z	Z				PD
4	W08ZZZ- SM0007L	Statistics and Econometrics			1			K2_ZARZ_U03 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08 K2_ZARZ_K08	15	90	3	3	0.7	T/Z	Z		DN	P	PD
	•	Total	3	0	3	0	0		90	420	14	14	4.2						

## 4.1.2.2 Physics block

No.	Course/ group of	Name of course/group of courses	W	eekly 1	numbei	of hou	ırs	Learning effect		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

1	W08ZZZ- SM0014W	Work Environment Physics (2)	1					K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z	DN	PD
		Total	1	0	0	0	0		15	60	2	2	0.7				

4.1.2.3 Chemistry block

No.	Course/ group of	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning	Numb	per of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### other.....

## Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
4	0	3	0	0	105	480	16	16	4.9

# 4.1.3 List of the main field of study blocks

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 4.1.3.1 Obligatory main field of study blocks

No.	Course/ group of	Name of course/group of courses	W	eekly r	numbei	of ho	urs	Learning effect	Num ho	ber of urs	Nı	umber of E points	CCTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0002W	Managerial Economics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03	30	60	2	2	1.4	T/Z	Z				K
2	W08ZZZ- SM0002C	Managerial Economics		2				K2_ZARZ_U01 K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	K
3	W08ZZZ- SM0003W	Fundamentals of Management and Marketing	2					K2_ZARZ_W04 K2_ZARZ_W17	30	120	4	4	1.4	T/Z	Е				K
4	W08ZZZ- SM0003C	Fundamentals of Management and Marketing		2				K2_ZARZ_U02 K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	30	60	2	2	1.4	T/Z	Z		DN	P	K
5	W08ZZZ- SM0003S	Fundamentals of Management and Marketing					1	K2_ZARZ_U02 K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	K
6	W08ZZZ- SM0004W	Economic law	2					K2_ZARZ_W10 K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z				K
7	W08ZZZ- SM0004C	Economic law		2				K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_U22 K2_ZARZ_U23	30	30	1	1	1.4	T/Z	Z		DN	P	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

		Total	14	6	2	1	2		375	750	25	25	17.5					
15	W08ZZZ- SM0022L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15	15	30	1	1	0.7	T/Z	Z	DN	P	K
14	W08ZZZ- SM0022W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	30	1	1	1.4	T/Z	Z			K
13	W08ZZZ- SM0021P	Strategic Management				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	К
12	W08ZZZ- SM0021W	Strategic Management	2					K2_ZARZ_W03 K2_ZARZ_W04	30	60	2	2	1.4	T/Z	E			K
11	W08ZZZ- SM0008L	Business modeling and forecasting			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z	DN	Р	K
10	W08ZZZ- SM0008W	Business modeling and forecasting	2					K2_ZARZ_W13	30	90	3	3	1.4	T/Z	Е			K
9	W08ZZZ- SM0005S	Management Psychology					1	K2_ZARZ_U05 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	K
8	W08ZZZ- SM0005W	Management Psychology	2					K2_ZARZ_W10 K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16	30	30	1	1	1.4	T/Z	Z			K

#### 4.1.3.2 ..... block

No.	Course/ group of	Name of course/group of courses (denote group of courses with symbol		/eekly	numbe	er of ho	ours	Learning effect	Numl ho	oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	Co	ourse/group	of courses	
	courses code	GK)	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

									scientific activities <sup>5</sup>	
	Total									

#### Altogether (for main field of study blocks):

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
14	6	2	1	2	375	750	25	25	17.5

## 4.2 List of optional blocks

## 4.2.1 List of general education blocks

## **4.2.1.1 Liberal-managerial subjects blocks** (min. ..... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		per of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total									
1 Otal									

**4.2.1.2** Foreign languages block (min. ..3...... ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly 1	number	of hou	ırs	Learning effect		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0001	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	T/Z	Z	0		P	КО
2	SJO- SM0002	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	T/Z	Z	0		Р	КО
		Total	0	4	0	0	0		60	90	3		2.0						

#### **4.2.1.3 Sporting classes block** (0. ECTS points):

No	Э.	Course/ group of	Name of course/group of courses	V	Veekly	numbo	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
		courses	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
			Total																	

## **4.2.1.4** *Information technologies* block (min. .... ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbo	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### Altogether for general education blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	4	0	0	0	60	90	3	0	2.0

## 4.2.2 List of basic sciences blocks

**4.2.2.1** *Mathematics* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol $GK$ )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total								
Total								ı I

## **4.2.2.2** *Physics* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Numl ho	oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol $\mathbf{G}\mathbf{K}$ )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### **4.2.2.3** *Chemistry* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

#### 4.2.3 List of blocks

**4.2.3.1** ......**2** block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	We	eekly 1	numbei	of ho	ırs	Learning effect		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0006S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18	15	30	1	1	0.7	T/Z	Z		DN	P	S
2	W08ZZZ- SM0016S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	S
		Total	0	0	0	0	2		30	60	2	2	1.4						

Altogether for blocks:

Total number of hours	Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

lec	cl	lab	pr	sem					
0	0	0	0	2	30	60	2	2	1.4

## 4.2.4 List of specialization blocks

#### **4.2.4.1** *Specialization subjects (e.g. whole specialization)* blocks (min. 40 ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly 1	number	of hou	urs	Learning effect	Numl ho		Ni	umber of E points	CCTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0009P	MSc Thesis I				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01	30	210	7	7	3.5	T/Z	Z		DN	P	S
2	W08ZZZ- SM0016S	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W09 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U10 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U14 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K07	30	330	11	11	5.5	T/Z	Z		DN	P	S
3	W08ZZZ- SM0010W	Entrepreneurship and Innovation	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

		1														•			
4	W08ZZZ- SM0010S	Entrepreneurship and Innovation					1	K2_ZARZ_U23 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0011W	Accounting and finances for managers	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	Е		DN		S
6	W08ZZZ- SM0011C	Accounting and finances for managers		2				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	30	60	2	2	1.4	T/Z	Z		DN	P	S
7	W08ZZZ- SM0017L	Management Training			2			K2_ZARZ_W17 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z		DN	P	S
8	W08ZZZ- SM0018W	Managerial Behavior and Decisions	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
9	W08ZZZ- SM0018S	Managerial Behavior and Decisions					1	K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
10	W08ZZZ- SM0019W	Quality management	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
11	W08ZZZ- SM0019P	Quality management				1		K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
12	W08ZZZ- SM0012W	Logistics Management in Enterprise	2					K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z		DN		S
13	W08ZZZ- SM0012L	Logistics Management in Enterprise			1			K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z		DN	Р	S
14	W08ZZZ- SM0013W	Personnel management	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z		DN		S
15	W08ZZZ- SM0013P	Personnel management				1		K2_ZARZ_U23 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

16	W08ZZZ- SM0020W	Project Management	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Е	DN		S
17	W08ZZZ- SM0020C	Project Management		1				K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	11	3	3	6	2		375	1200	40	40	23.7					

**4.2.4.2** Block "External Business Condition" (e.g. diploma profile) block (min. 2 ECTS points):

No.	Course/ group of	Name of course/group of courses	Wee	ekly 1	numbei			Learning effect	Numl	er of		umber of E points		Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM2ZDM01 UZDG-22L	Block "External Business Condition"	1	1	0	0	0	K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_U01 K2_ZARZ_U02 K2_ZARZ_U02 K2_ZARZ_U02 K2_ZARZ_U03	30	60	2	2	1.4				DN		
1	W08ZZZ- SM0023W	Circumstances of making a business	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0023C	Circumstances of making a business		1					15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0024W	International Business Environment	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0024C	International Business Environment		1					15	30	1	1	0.7	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

5	W08ZZZ- SM0025W	Theory and practice of economic regulations	1				15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0025C	Theory and practice of economic regulations		1			15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	1	1			30	60	2	2	1.4					

### **4.2.4.3** Block "Financial planning, analysis and decisions" .... (np. profil dyplomowania) (min. ..2.. pkt ECTS):

No.	Course/ group of	Name of anyma (arrows of anymas	We	ekly 1	numbe	r of hou	urs		Numl ho		N	umber of E points	CTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM3ZDM01 PADF-22L	Blok "Financial planning, analysis and decisions" "	1	0	0	1	0	K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_U13 K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	z		DN		
1	W08ZZZ- SM0026W	Financial analysis of business decisions	1						15	30	1	1	0.7	T/Z	Z		DN		S
2	W08ZZZ- SM0026L	Financial analysis of business decisions			1				15	30	1	1	0.7	T/Z	Z		DN	P	S
3	W08ZZZ- SM0027W	Controlling	1						15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0027P	Controlling				1			15	30	1	1	0.7	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

5	W08ZZZ- SM0028W	Value Based Management	1				15	30	1	1	0.7	T/Z	Z	DN		S
6	W08ZZZ- SM0028P	Value Based Management			1		15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	1	1				30	60	2	2	1.4				

#### Altogether for specialization blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
13	4	3	7	2	435	1320	44	44	26.5

### 4.3 Training block - concerning principles of training crediting - attachment no. ...

#### Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training					
Number of ECTS points	Number of	ECTS points for BU1 clas	sses	Training crediting mode	Code
Training duration	on		Trainir	ng objective	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

Type of diploma dissertation	magister							
Number of diploma dissertation semesters	Number of ECTS points	Co	ode					
3	1 1 7 11	W08ZZZ-SM0006S W08ZZZ-SM0016S W08ZZZ-SM0009P W08ZZZ-SM0015D	Seminar I Seminar II MSc Thesis I MSc Thesis II					
Chara	cter of diploma dissert	ation						
Literature su	ırvey, project, computer pro	ogram, etc.						
Number of BU <sup>1</sup> ECTS points		10.4						

#### 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	e.g. examination, progress/final test
class	e.g. progress/final test
laboratory	e.g. pretest, report from laboratory
project	e.g. project defence
seminar	e.g. participation in discussion, topic presentation, essay
diploma dissertation	prepared diploma dissertation

#### 6. Range of diploma examination

- 1. Theories of regulation and their connection with classical schools of economics.
- 2. Determinants of economic growth and development according to Keynesian and neoliberal economics.
- 3. The influence of competition policy and industrial policy on the company's activities on the EU market.
- 4. Economic and legal tools and the economic effects of markets demopolisation.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO$  – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 5. Strategic analysis methods of the organization's environment and the organization's potential.
- 6. The essence of strategic management. Schools of thought and trends in strategic management.
- 7. Institutional and financial instruments supporting the competitiveness and innovation of enterprises.
- 8. Organizational growth and development model.
- 9. Features of an intelligent organization.
- 10. Knowledge management in an organization goals, functions, models and instruments examples.
- 11. Institutional and non-institutional forms of intellectual property protection.
- 12. Methods and application of cost calculation.
- 13. Value of the enterprise methods of calculation.
- 14. The Balanced Scorecard as a method of monitoring the achievement of strategic goals.
- 15. Roles and tasks of the budgeting process in the enterprise.
- 16. Management by objectives idea, stages, and conditions.
- 17. Psychological contract as a determinant of organizational culture.
- 18. The subject and scope of unfair commercial practices.
- 19. The essence of leadership in an organization. Leadership concepts and styles.
- 20. Conflict management; the concept of conflict, sources and types of conflicts in the organization, methods of solving interpersonal and intergroup conflicts.
- 21. The influence of motivation on human behaviour in the context of achieving the goals of the group and organization.
- 22. Instruments of intra-organizational entrepreneurship.
- 23. Psychological aspects of resistance to changes and ways of overcoming them.
- 24. Factors favoring and blocking the processes of creative thinking. Creative problem solving techniques.
- 25. Methods of operational research purpose and scope of applications in management examples.
- 26. The importance of the level of significance in testing statistical hypotheses.
- 27. Components of time series. Forecasting methods based on time series.
- 28. Simulation methods. The course of the simulation process. Objectives of simulation studies examples of applications.
- 29. Typical strategies of management informatization on the example of an industrial enterprise.
- 30. Basic measures of comparing economies and their usefulness for making decisions at the enterprise level.
- 31. Premises and types of economic and social regulations in economies
- 32. Types of organizations their goals.
- 33. Forms of legal, organizational and ownership of enterprises.
- 34. Micro- and macro environment of the enterprise, types of relations with the environment and their impact on the functioning of the enterprise.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 35. Objectives and functions of management.
- 36. Model of the organization, the nature of its elements, relations between the elements.
- 37. The life cycle of an organization versus individual and group behaviour as well as organizational attitudes.
- 38. Organizational structure conditions and directions of evolution.
- 39. Functional and process orientation in organization management.
- 40. The essence of logistics, its pillars and levels of integration of logistics processes.
- 41. Goals and strategies of production management in a market economy.
- 42. Total Quality Management (TQM) and the quality management system based on ISO 9000 basic differences.
- 43. Objectives and stages of the DMAIC (Define Measure Analyze Improve Control) methodology used in the Six Sigma.
- 44. Assets and capital of the enterprise balance sheet; Income and costs financial result; Cash Flow.
- 45. Investing capital material and cash investments. Methods of assessing the effectiveness of investments.
- 46. Financial analysis; analysis of liquidity, profitability, capital structure.
- 47. Mature organization methods of building consistency and consolidating organizational behaviors aimed at limiting the risk of failure of the organization.
- 48. Goals, stages and tools of marketing management.
- 49. The concept of marketing, its place in the enterprise, basic principles of marketing.
- 50. Algorithmic and heuristic processes in decision making: comparison of both types, examples of heuristics.
- 51. Inter-organizational behaviors: sources, mechanisms and effects of shaping and choosing behaviors in the strategic dimension.
- 52. Project initiation phase goals, principles, related activities, documents.
- 53. Project management structures goals, principles, advantages and disadvantages of use.
- 54. Task structure of the personnel function and instruments for its implementation.
- 55. Principles of building and functioning of teams in the organization and factors influencing their efficiency.

#### 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

1	Vo.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 8. Plan of studies (attachment no. 3)

Approved by faculty student government legislative body:

28.10, 2922

Date

name and surname, signature of student representative

DZIEKAN

dr.hab. inż. Katarzyna Tworek, prof. uczelni

28.10.2022 Date

Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## **PLAN OF STUDIES**

**FACULTY Faculty of Management** 

**MAIN FIELD OF STUDY: Management** 

**EDUCATION LEVEL** second-level studies

FORM OF STUDIES: full-time studies

**PROFILE:** general academic

**SPECIALIZATION** Zachowania i decyzje menedżerskie (ZDM)

**LANGUAGE OF STUDY: Polish** 

In effect since 2023/2024

\*delete as applicable

Plan of studies structure (optionally)

1) in ECTS point layout (space for scheme of plan)

23	S point layout (space for so	Foreign Language I 30 1					
22	Management Psychology 60 2						
21	-	Foreign Language II 60 2	Work Environment Physics (2) 60 2				
20							
19	Operations Research 210 7		Integrated Management Information Systems				
18	-	Business modeling and forecasting 150 5	60 2				
17							
16	Statistics and Econometrics 210 7		Strategic Management 90 3				
15	]	Accounting and finances for managers					
14		150 5	Block "Financial planning, analysis and decisions"				
13	Economic law		60 2				
12	60 2	Block "External Business Condition"	Managerial Behavior and Decisions 60				
11		60 2	2				
10							
9	Fundamentals of Management and	Personnel management 90 3	Project Management 90 3				
8	Marketing 7						
7	,	Entrepreneurship and Innovation	Quality management				
6		60 2	60 2				
5			Management Training				
4	Managerial Economics	Logistics Management in Enterprise 90 3	60 2				
3	120 4		MSc Thesis II				
2		MSc Thesis I	330 11				
1	Seminar I 30 1	210 7	Seminar II 30 1				
	I	п	III				

2) in hourly layout (space for scheme of plan)

(S)	vace jor scheme oj pian)		
23	Management Psychology	Foreign Language I	
22	20001	Foreign Language II	
21		03000	Work Environment Physics (2)
0	Operations Research	0.5000	Integrated Management Information
19	10200 E	Business modeling and forecasting	Systems
18	10200 E	20100 E	20100
17	Statistics and Econometrics	2010012	Strategic Management
16			
	20100	Accounting and finances for managers	20010 E
15		Accounting and imances for managers	
14		22000 E	Block "Financial planning, analysis and decisions"
13	Economic law		
12	22000	Block "External Business Condition"	Managerial Behavior and Decisions
11		11000	10001
10		Personnel management	Project Management
9	Fundamentals of Management and Marketing	20010	21000 E
8	_		
7	22OO1 E	Entrepreneurship and Innovation	Quality management
6		10001	10010
5		Logistics Management in Enterprise	Management Training
4	Managerial Economics	20100	00200
3	22000	20100	MSc Thesis II
2		MSc Thesis I	[2]
1	Seminar I	[2]	Seminar II
	I	П	III
	l		

## 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

## Semester 1

Obligatory courses / groups of courses Number of ECTS points 29

Oblig	atory cou	ises / groups of courses		1.4	umb	CI U		19 homes	4)										
No.	Course/		W	eekly 1	number	of ho	urs			ber of urs	N	umber of E points	ECTS			C	ourse/group	of courses	
	group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	Learning effect symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	Form <sup>2</sup> of course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0001W	Operations Research	1					K2_ZARZ_W13	15	120	4	4	0.7	T/Z	Е		DN		PD
2	W08ZZZ- SM0001L	Operations Research			2			K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K08	30	90	3	3	1.4	T/Z	Z		DN	Р	PD
3	W08ZZZ- SM0002W	Managerial Economics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03	30	60	2	2	1.4	T/Z	Z		DN		K
4	W08ZZZ- SM0002C	Managerial Economics		2				K2_ZARZ_U01 K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	z		DN	P	K
5	W08ZZZ- SM0003W	Fundamentals of Management and Marketing	2					K2_ZARZ_W04 K2_ZARZ_W17	30	120	4	4	1.4	T/Z	Е		DN		K
6	W08ZZZ- SM0003C	Fundamentals of Management and Marketing		2				K2_ZARZ_U02 K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K08	30	60	2	2	1.4	T/Z	Z		DN	P	K
7	W08ZZZ- SM0003S	Fundamentals of Management and Marketing					1	K2_ZARZ_U02 K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	K
8	W08ZZZ- SM0004W	Economic law	2					K2_ZARZ_W10 K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z		DN		K

9	W08ZZZ- SM0004C	Economic law		2				K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_U22 K2_ZARZ_U23	30	30	1	1	1.4	T/Z	Z	DN	Р	K
10	W08ZZZ- SM0005W	Management Psychology	2					K2_ZARZ_W10 K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W16	30	30	1	1	1.4	T/Z	Z	DN		K
11	W08ZZZ- SM0005S	Management Psychology					1	K2_ZARZ_U05 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z	DN	P	К
12	W08ZZZ- SM0007W	Statistics and Econometrics	2					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W13	30	120	4	4	1.4	T/Z	Z	DN		PD
13	W08ZZZ- SM0007L	Statistics and Econometrics			1			K2_ZARZ_U03 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U15 K2_ZARZ_U15 K2_ZARZ_U17 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K08 K2_ZARZ_K08	15	90	3	3	0.7	T/Z	Z	DN	Р	PD
		Total	11	6	3	0	2		330	875	29	29	15.4					

Optional courses / groups of courses (minimum ...15... hours in semester, ...1.... ECTS points)

No.	Course/	Name of course/group of courses		eekly 1	number	of hou	ırs	Learning effect	Number of hours		Number of ECTS points			Form <sup>2</sup> of		Co	ourse/group	urse/group of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ - SM0006S	Seminar I					1 K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 15 30 1 1 0.7		0.7	T/Z	Z		DN	P	S				
		Total		0	0	0	1		15	30	1	1	0.7						

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

**Altogether in semester** 

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
11	6	3	0	3	345	900	30	30	16.1

#### Semester 2

Obligatory courses / groups of courses

Number of ECTS points ...18.....

No.	Course/	Name of course/group of courses	W	eekly r	number	of ho	urs	Learning effect		ber of urs	Nı	umber of E points	CCTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0008W	Business modeling and forecasting	2					K2_ZARZ_W13	30	90	3	3	1.4	T/Z	E		DN		К
2	W08ZZZ- SM0008L	Business modeling and forecasting			1			K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_K01 K2_ZARZ_K06	15	60	2	2	0.7	T/Z	Z		DN	P	К
3	W08ZZZ- SM0010W	Entrepreneurship and Innovation	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z		DN		S
4	W08ZZZ- SM0010S	Entrepreneurship and Innovation					1	K2_ZARZ_U23 K2_ZARZ_K06	15	30	1	1	0.7	T/Z	Z		DN	P	S
5	W08ZZZ- SM0011W	Accounting and finances for managers	2					K2_ZARZ_W17	30	90	3	3	1.4	T/Z	E		DN		S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

6	W08ZZZ- SM0011C	Accounting and finances for managers		2				K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	30	60	2	2	1.4	T/Z	Z	DN	Р	S
7	W08ZZZ- SM0012W	Logistics Management in Enterprise	2					K2_ZARZ_W17	30	30	1	1	1.4	T/Z	Z	DN		S
8	W08ZZZ- SM0012L	Logistics Management in Enterprise			1			K2_ZARZ_U23	15	60	2	2	0.7	T/Z	Z	DN	P	S
9	W08ZZZ- SM0013W	Personnel management	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	Z	DN		S
10	W08ZZZ- SM0013P	Personnel management				1		K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z	DN	P	S
		Total	9	2	2	1	1		225	540	18	18	10.5					

Optional courses / groups of courses (minimum ...120... hours in semester, ...12.... ECTS points)

Ño.	Course/	Name of course/group of courses	W	eekly 1	number	of hou	ırs	Learning effect	Num ho	per of urs	Nι	umber of E points	CCTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO-SM0001	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1		0.5	Т	Z	0		P	КО
2	SJO- SM0002	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2		1.5	Т	Z	0		P	КО
3	W08ZZZ- SM0009P	MSc Thesis I				2		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U14	30	210	7	7	3.5	T/Z	Z		DN	Р	S

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K09										
4	ZZZ- SM2ZDM0 1UZDG- 22L	Block "External Business Condition"	1	1				K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W03 K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_U01 K2_ZARZ_U02 K2_ZARZ_U02 K2_ZARZ_U03	30	60	2	2	1.4	T/Z	Z	DN	p	S
	W08ZZZ- SM0023W	Circumstances of making a business	1						15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0023C	Circumstances of making a business		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
	W08ZZZ- SM0024W	International Business Environment	1						15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0024C	International Business Environment		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
	W08ZZZ- SM0025W	Theory and practice of economic regulations	1						15	30	1	1	0.7	T/Z	Z	DN		S
	W08ZZZ- SM0025C	Theory and practice of economic regulations		1					15	30	1	1	0.7	T/Z	Z	DN	P	S
•		Total	1	5	0	2	0		120	360	12	12	6.9					

#### Altogether in semester

	Total r	umber o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

10	7	2	3	1	345	900	30	27	17.4

#### Semester 3

Obligatory courses / groups of courses Number of ECTS points ...16.....

No.	Course/	Name of course/group of courses	W	eekly 1	number	of ho	urs	Learning effect		ber of urs	Nı	umber of E points	CTS	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Tot al	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0017L	Management Training			2			K2_ZARZ_W17 K2_ZARZ_U23	30	60	2	2	1.4	T/Z	Z		DN	P	S
2	W08ZZZ- SM0018W	Managerial Behavior and Decisions	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z				S
3	W08ZZZ- SM0018S	Managerial Behavior and Decisions					1	K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	P	S
4	W08ZZZ- SM0019W	Quality management	1					K2_ZARZ_W17	15	30	1	1	0.7	T/Z	Z				S
5	W08ZZZ- SM0019P	Quality management				1		K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	Р	S
6	W08ZZZ- SM0020W	Project Management	2					K2_ZARZ_W17	30	60	2	2	1.4	T/Z	E				S
7	W08ZZZ- SM0020C	Project Management		1				K2_ZARZ_U23	15	30	1	1	0.7	T/Z	Z		DN	Р	S
8	W08ZZZ- SM0021W	Strategic Management	2					K2_ZARZ_W03 K2_ZARZ_W04	30	60	2	2	1.4	T/Z	Е				K

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

9	W08ZZZ- SM0021P	Strategic Management				1		K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U09 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01	15	30	1	1	0.7	T/Z	Z	DN	P	К
10	W08ZZZ- SM0022W	Integrated Management Information Systems	2					K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14	30	30	1	1	1.4	T/Z	Z			K
11	W08ZZZ- SM0022L	Integrated Management Information Systems			1			K2_ZARZ_U13 K2_ZARZ_U15	15	30	1	1	0.7	T/Z	Z	DN	P	K
12	W08ZZZ- SM0014W	Work Environment Physics II	1					K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_U22	15	60	2	2	0.7	T/Z	Z			PD
		Total	9	1	3	2	1		240	480	16	16	11.2					

#### Optional courses / groups of courses (minimum ...30. hours in semester, ...14.... ECTS points)

	Course/	Name of course/group of courses	W	eekly r	number	of hou	ırs	Learning effect		nber of ours	Numbe	er of ECTS	points	Form <sup>2</sup> of		С	ourse/group	of courses	
No.	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZ U	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM0015D	MSc Thesis II				2		K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U17 K2_ZARZ_K07 K2_ZARZ_K07	30	330	11	11	5.5	T/Z	Z		DN	P	S
2	W08ZZZ- SM0016S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_K01 K2_ZARZ_K08	15	30	1	1	0.7	T/Z	Z		DN	P	S
3	ZZZ- SM3ZDM0	Block "Planning, analysis and financial decisions"	1			1		K2_ZARZ_W05 K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W14 K2_ZARZ_U13 K2_ZARZ_U15 K2_ZARZ_U22	30	60	2	2	1.4	T/Z	Z		DN	P	S

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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1PADF- 22L							K2_ZARZ_K01 K2_ZARZ_K07 K2_ZARZ_K08 K2_ZARZ_K09										
W08ZZZ- SM0026W	Financial analysis of business decisions	1						15	30	1	1	07	T/Z	Z	DN		S
W08ZZZ- SM0026L	Financial analysis of business decisions			1				15	30	1	1	0.7	T/Z	Z	DN	P	S
W08ZZZ- SM0027W	Controlling	1						15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0027P	Controlling				1			15	30	1	1	0.7	T/Z	Z	DN	Р	S
W08ZZZ- SM0028W	Value Based Management	1						15	30	1	1	0.7	T/Z	Z	DN		S
W08ZZZ- SM0028P	Value Based Management				1			15	30	1	1	0.7	T/Z	Z	DN	Р	S
	Total	1	0	0	3	1		75	420	14	14	7.6					

Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
10	1	3 5 2		315	900	30	30	18.8	

#### 2. Set of examinations in semestral arrangement

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Course / group of courses	Names of courses / groups of courses ending with examination	Semester
code		
W08ZZZ-SM0001W	Operations Research	1
W08ZZZ-SM0003W	Fundamentals of Management and Marketing	1
W08ZZZ-SM0008W	Business modeling and forecasting	2
W08ZZZ-SM0011W	Accounting and finances for managers	2
W08ZZZ-SM0020W	Project Management	3
W08ZZZ-SM0021W	Strategic Management	3

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#### 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	8
2	7
3	0

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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Opinion of student government legislative body

28.10.2022

28.6.2024

Date

Date

Name and surname, signature of student representative

DZIEKAN

dr hab, inż. Katar kna Tworek, prof. uczelni

Dean's signature

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### **DESCRIPTION OF THE PROGRAM OF STUDIES**

Main field of study: Management Profile: general academic

Level of studies: second-level studies Form of studies: full-time studies

## 1. General description

1.1 Number of semesters:4	1.2 Total number of ECTS points necessary to complete studies at a given level:120
1.3 Total number of hours: 1230	1.4 Prerequisites (particularly for second-level studies):
	First-cycle studies completed According to the resolution No. 151/11/2020-2024 of PWr Senate from 17 June 2021 and resolution No. 26/22/2020- 2024 of PWr Senate from 19 May 2022
1.5 Upon completion of studies graduate obtains	1.6 Graduate profile, employability:
professional degree of: Master of Science ( <b>magister</b> ) 2nd level qualifications	A masters graduate possesses advanced specialist knowledge in the field of management sciences in the following areas: analytical models and methods, integrated information systems and, in particular, contemporary concepts and methods in managing, planning and monitoring the results of the activities of an enterprise, together with the functioning, development and strategical renewal of organizations. A masters graduate is characterized by the ability to think abstractly and a critical approach

to theory, which enables him/her to identify, describe, analyze and interpret the complex processes and problems of a firm and its surroundings. He/she is in possession of the ability to integrate knowledge from various disciplines (economics, psychology, law) and apply computer and mathematical tools to carry out a full diagnosis of a problem and create innovative solutions in the workplace. Such masters graduates are qualified to work as an independent entrepreneur, manager, specialist or consultant due to their advanced ability to identify, formulate and solve problems within the framework of a complex and uncertain environment, as well as to select the appropriate methods and tools for analysis.

A masters graduate is prepared to act as a leader of various types of teams, in various organizations (from international corporations to startups), as well as a human resources specialist, taking into account professional standards, ethical norms and socially acceptable features. He/she is able to use, appropriate to the needs, instruments and principles of managing own potential, team members and organization. He/she can plan, conduct and evaluate the effects of processes such as: recruitment and selection, employee development, career path planning, employee evaluation, remuneration and motivation, strengthening employee commitment and loyalty. A masters graduate understands and is able to put into practice concepts modern of human resource management, for example: competency approach, strategic and international HRM, evidence-based approach, diversity management, and employer branding. He/she is able to apply research methods in the areas of HR, from methodology to advanced HR analytics. He can make decisions and actions and function in conditions of uncertainty. Thanks to these skills, he/she is able to evaluate the conducted activities in order to build an HR strategy and connect it with the organization's strategy. He/she understands the

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<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

1.7 Possibility of continuing studies: eligibility to apply for 1.8 Indicate connection with University's mission and its admission to a doctoral school, non-degree postgraduate development strategy:

tasks of a manager and a leader, and for the purposes of effective communication and conflict resolution, can use the tools useful in psychology and sociology of business. A masters graduate has knowledge and experience concerning the functioning of groups and their dynamics. He/she can use human resource management tools to achieve optimal results of his/her teams: both in terms of business or project goals, high performance and group effectiveness, but also the optimal level of well-being of group members. He/she is also prepared to work and manage teams in companies of various specialties (IT, mechanics, electronics and telecommunications, chemistry, construction and other technical fields).

Education in Management is conducted in the field of social sciences, however it is directly part of the mission and development strategy of a technical university. Management graduates acquire business, analytical, social and technical competences.

The educational program in Management is coherent with the mission of Wrocław University of Science and Technology in the following areas:

- Developing creative, critical and tolerant graduates, as studying a course in management emphasizes on appropriate skills and attitudes development;
- Aiming to provide high quality courses and providing the students of Management and lecturers with conditions enabling open discussion and constructive criticism;
- Developing the values and tradition of higher education, wide-ranging cooperation with other universities via students taking part in scientific conferences and the Erasmus program, and with employers via practical

programmes.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

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<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- learning, carried out in the form of projects in specific organizations;
- Aiming to make an impact on the national and international scene in the area of educating specialists in the field of management, by emphasizing the professionalism and hard skills of graduates.

According to the principle adopted at Wrocław University of Science and Technology, studies in the field of Management have a general academic profile. The program satisfies all the conditions stipulated in current legislation and is also in accordance with the Polish Qualifications Framework in the field of social science.

Our programs in Management has have a unique character. In accordance with the University's strategy, which emphasizes the need to respond to the current needs of the labor market, it demonstrates a natural – in business practice – complementarity of technical science and economics, enriched with the element of computer science.

Due to the regional roots of the University, the educational programs in Management create a framework which ensures that students have systematic contact with enterprises and other institutions during their studies.

In line with the University's development strategy, the quality of education in the didactic offer at the Faculty is systematically improved. This is achieved through the development of our lecturers' research and teaching skills, as well as systematic refurbishment of the department's infrastructure, including modernization of lecture theatres, audio-visual equipment and computer laboratories, and a current software updates.

The program of masters studies in management develops the theoretical knowledge and practical skills of students, enabling graduates to be highly competitiveness on the employment market.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Graduates are able to undertake doctoral studies and carry out their
own research. They also are conscious of the need for constant self-
development in cooperation with their alma mater.

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study: W (knowledge) =17, U (skills) = 23, K (competences) = 9, W + U + K = 49.
  - 2.2 For the main field of study assigned to more than one discipline the number of learning outcomes assigned to the discipline:

D1 (major) Management and quality sciences

D2 .....

D3 .....

D4 .....

2.3 For the main field of study assigned to more than one discipline - percentage share of the number of ECTS points for each discipline:

D1 100 % ECTS points

D2 .....% ECTS points

**D3** .....% **ECTS** points

D4 .....% ECTS points

- 2.4a. For the general academic profile of the main field of study the number of ECTS points assigned to the classes related to the University's academic activity in the discipline or disciplines to which the main field of study is assigned DN: 106.5 ECTS points (must be greater than 50% of the total number of ECTS points from 1.2)
- 2.4b. For the practical profile of the main field of study the number of ECTS points assigned to the classes shaping practical skills: .... ECTS points (must be greater than 50% of the total number of ECTS points from 1.2)
  - 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

    The expected educational results of the study correspond to the following requirements set for employees by employers on the labor market:

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>KO-general\ education\ courses,\ PD-basic\ sciences\ courses,\ K-main\ field\ of\ study\ courses,\ S-specialization\ courses$ 

- Employees' understanding of the strategic perspective of the company's functioning, in particular, the assessment and formation of its competitiveness and value (employers medium and large companies);
- Independence of employees, but also ability to perform various roles in a team in terms of diagnosing, proposing solutions and their implementation in the functional areas of the company according to the completed specialization (employers medium and large companies);
- Inspire and select and implement modern management methods and techniques and selected IT tools;
- Ability to learn and share knowledge with others as well as creativity and openness to innovations.

The curriculum of management studies at the graduate level and the long-term experience of the teaching staff create conditions for the achievement by the graduates of the expected educational results and for meeting the above requirements formulated by the employers.

2.6. The total number of ECTS points that a student must obtain in classes requiring direct participation of academic teachers or other persons conducting classes and students (enter the sum of ECTS points for courses / groups of courses marked with the BU<sup>1</sup> code) ...83.9 ECTS

#### 2.7. Total number of ECTS points, which student has to obtain from basic sciences classes

Number of ECTS points for obligatory subjects	8
Number of ECTS points for optional subjects	0
Total number of ECTS points	8

# **2.8.** Total number of ECTS points, which student has to obtain from practical classes, including project and laboratory classes (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	21
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<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Number of ECTS points for optional subjects	69
Total number of ECTS points	90

- 2.9. Minimum number of ECTS points, which student has to obtain doing education blocks offered as part of University-wide classes or other main field of study (enter number of ECTS points for courses/groups of courses denoted with code O)
  - ...3.... ECTS points
- 2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points) ....79.... ECTS points

#### 3. Description of the process leading to learning outcomes acquisition:

The process leading to achievement of the assumed learning outcomes includes active participation in the classes organized at the university: lectures, classes, laboratories, projects and seminars, as well as self-studies enabling consolidation, supplementation and extension of knowledge. The educational program create a framework which ensures that student has systematic contact with enterprises and other institutions during studies. If necessary, the student may use individual consultations. Learning outcomes in terms of skills are further developed during obligatory student training program.

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 4. List of education blocks:

## 4.1. List of obligatory blocks:

## 4.1.1 List of general education blocks

### **4.1.1.1** *Liberal-managerial subjects* block (min. 2 ECTS points):

No	Course/	Name of course/group of courses	W	eekly	numbe	r of ho	urs	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8001W	Basis of Social Science	2					K2_ZARZ_W10 K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W17	30	60	2	2	1,4	T/Z	Z		DN		K
_		Total	2	0	0	0	0		30	60	2	2	1,4						

**4.1.1.2** Foreign languages block (min. ....... ECTS points):

No.	Course/	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

#### **4.1.1.3** *Sporting classes* block (0 ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning effect		ber of urs	Numb	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	,
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

**4.1.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	3
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

### Altogether for general education blocks

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2	0	0	0	0	30	60	2	2	1,4

### 4.1.2 List of basic sciences blocks

#### 4.1.2.1 *Mathematics* block

No	Course/ group of	Name of course/group of courses	W	eekly 1	numbei	of ho	ırs	Learning effect		oer of urs	Numb	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8007W	Risk analysis in the Realization of Organizational Projects	2					K2_ZARZ_W07 K2_ZARZ_W13 K2_ZARZ_W17	30	90	3	0	2,1	T/Z	Е				PD
2	W08ZZZ- SM8007L	Risk analysis in the Realization of Organizational Projects			2			K2_ZARZ_U08 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U23	30	90	3	0	2,1	T/Z	Z			Р	PD
		Total	2	0	2	0	0		60	180	6	0	4,2						

## 4.1.2.2 Physics block

No	Course/ group of	Name of course/group of courses	W	eekly 1	numbe	of ho	ırs	Learning effect	Numb hot		Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

1	W08ZZZ- SM8016P	Work Environment Physics II				1		K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_K02	15	60	2	2	1,4	T/Z	Z	DN	Р	PD
		Total	0	0	0	1	0		15	60	2	2	1,4					

4.1.2.3 Chemistry block

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning	Num ho	ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

other.....

## Altogether for basic sciences blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
2	0	2	1	0	75	240	8	2	5.6

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 4.1.3 List of the main field of study blocks

### 4.1.3.1 Obligatory main field of study blocks

No ·	Course/ group of	Name of course/group of courses	W	eekly 1	number	of ho	urs	Learning effect		ber of ours	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8006W	Human Resource Management	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W17	30	90	3	3	2,1	T/Z	Е		DN		K
2	W08ZZZ- SM8021W	Managerial Accounting	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	1,4	T/Z	Е		DN		K
3	W08ZZZ- SM8021C	Managerial Accounting		1				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U08 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05	15	60	2	2	1,4	T/Z	Z		DN	P	K
4	W08ZZZ- SM8021L	Managerial Accounting			1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	1,4	T/Z	Z		DN	Р	K
5	W08ZZZ- SM8012W	Knowledge Economy	1					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W05 K2_ZARZ_W10	15	90	3	3	2,1	T/Z	Е		DN		K
6	W08ZZZ- SM8012C	Knowledge Economy		2				K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z		DN	Р	K
7	W08ZZZ- SM8027S	Modern Trends in Human Resource Management					2	K2_ZARZ_W14 K2_ZARZ_U09 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	30	60	2	2	1,4	T/Z	Z		DN	Р	K
8	W08ZZZ- SM8002W	Contemporary Management	1					K2_ZARZ_W03 K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W11	15	60	2	2	1,4	T/Z	Z		DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_W12										
9	W08ZZZ- SM8002S	Contemporary Management					2	R2_ZARZ_U02 R2_ZARZ_U04 R2_ZARZ_U04 R2_ZARZ_U06 R2_ZARZ_U09 R2_ZARZ_K01 R2_ZARZ_K02 R2_ZARZ_K03 R2_ZARZ_K04 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_R05	30	90	3	3	2,1	T/Z	Z	DN	Р	K
10	W08ZZZ- SM8020W	Leadership in the Organization	2					K2_ZARZ_W11 K2_ZARZ_W17	30	90	3	3	2,1	T/Z	Е	DN		K
11	W08ZZZ- SM8020C	Leadership in the organization		2				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U03 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03 K2_ZARZ_K08 K2_ZARZ_K08	30	50	2	2	1,4	T/Z	Z	DN	P	K
12	W08ZZZ- SM8026C	Employer Branding		2				K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U05 K2_ZARZ_U06 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K06	30	60	2	2	1,4	T/Z	Z	DN	P	K
13	W08ZZZ- SM8029W	Performance Management in Human Resource Management	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W17	15	60	2	2	1,4	T/Z	Е	DN		K
14	W08ZZZ- SM8029C	Performance Management in Human Resource Management		1				K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05	15	30	1	1	0,7	T/Z	Z	DN	Р	K
		Total	8	8	1	0	4		315	920	31	31	21,7					

### 4.1.3.2 ..... block

No.	Course/ group of	Name of course/group of courses	V	Weekly	numbe	er of ho	ours	Learning	Numl ho	er of ars	Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
										·									

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Total								

### Altogether (for main field of study blocks):

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
8	8	1	0	4	315	920	31	31	21,7

# 4.2 List of optional blocks

## 4.2.1 List of general education blocks

#### **4.2.1.1 Liberal-managerial subjects blocks** (min. 2 ECTS points):

No ·	Course/ group of	Name of course/group of courses	W	si			Learning	Numl ho		Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses		
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ-	W08-HRM-ST-IIM/Block	1				1		30	60	2	2	1,4	T/Z	Z		DN		K
	SM4HRM02	Management																	
	BM-21Z																		
1	W08ZZZ- SM8035W	Corporate Social Responsibility	1					K2_ZARZ_W10	15	30	1	1	0,7	T/Z	Z		DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2	W08ZZZ-	Corporate Social Responsibility					1	K2_ZARZ_U05 K2_ZARZ_K02	15	30	1	1	0,7	T/Z	Z	DN	P	K
	SM8035S							K2_ZARZ_K07 K2_ZARZ_K09										
3	W08ZZZ-	Business ethics	1					K2_ZARZ_W10	15	30	1	1	0,7	T/Z	Z	DN		K
	SM8034W																	ĺ
4	W08ZZZ-	Business ethics					1	K2_ZARZ_U05 K2_ZARZ_K02	15	30	1	1	0,7	T/Z	Z	DN	P	K
	SM8034S							K2_ZARZ_K07 K2_ZARZ_K09										
		Total	1	0	0	0	1		30	60	2	2	1,4					

**4.2.1.2** Foreign languages block (min. 3 ECTS points):

No.	Course/ group of	Name of course/group of courses	W				Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of course/gr	Way <sup>3</sup> of	Co	ourse/group	of courses		
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	oup of courses	crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO- SM0003	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2	0	1.5	Т	Z	О		Р	КО
2	SJO- SM0003	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1	0	0.5	Т	Z	0		Р	КО
		Total	0	4	0	0	0		60	90	3	0	2.0						

## **4.2.1.3 Sporting classes block** (0. ECTS points):

No.	Course/ group of	Name of course/group of courses	W	Veekly	numbe	er of ho	ours	Learning effect	Numb hou		Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	Total									

**4.2.1.4** *Information technologies* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	v	ef			Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	,	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

## Altogether for general education blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
1	4	0	0	1	90	150	5	2	3.4

## 4.2.2 List of basic sciences blocks

## **4.2.2.1** *Mathematics* block (min. .... ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
'-		Total																	

#### **4.2.2.2** *Physics* block (min. .... ECTS points):

No.	Course/ group of	Name of course/group of courses	V	Veekly	numb	er of ho	ours	Learning effect		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

## **4.2.2.3** *Chemistry* **block** (min. .... *ECTS* points):

No.	Course/ group of	Name of course/group of courses	V					Learning effect		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### Altogether for general education blocks:

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					

#### 4.2.3 List of blocks

### **4.2.3.1 "Diploma seminar" block** (min. 4 ECTS points):

No.	Course/ group of	Name of course/group of courses	W				Learning		ber of urs	Numb	er of ECTS	5 points	Form <sup>2</sup> of		Co	ourse/group	of courses		
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8015S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	1,4	T/Z	Z		DN	P	S
2	W08ZZZ- SM8023S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K08	15	50	2	2	1,4	T/Z	Z		DN	P	S
		Total	0	0	0	0	2		30	110	4	4	2,8						

•••••

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether for blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
0	0	0	0	2	30	110	4	4	2.8

## 4.2.4 List of specialization blocks

#### **4.2.4.1** *Specialization subjects (e.g. whole specialization)* blocks (min. 42 ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly 1	number	of ho	urs	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8008W	Talent Acquisition & Recruitment Management	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0,7	T/Z	Z		DN		S
2	W08ZZZ- SM8008P	Talent Acquisition & Recruitment Management				2		K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z		DN	P	S
3	W08ZZZ- SM8009P	Competences Management				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K05	30	90	3	3	2,1	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K08										
4	W08ZZZ- SM8010C	Employee Performance Appraisal		2				R2_ZARZ_U03 R2_ZARZ_U04 R2_ZARZ_U06 R2_ZARZ_U06 R2_ZARZ_U07 R2_ZARZ_U22 R2_ZARZ_U22 R2_ZARZ_U23 R2_ZARZ_K01 R2_ZARZ_K03 R2_ZARZ_K03 R2_ZARZ_K04 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K06 R2_ZARZ_K06 R2_ZARZ_K06 R2_ZARZ_K07 R2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z	DN	Р	S
5	W08ZZZ- SM8011C	Employee Potential Assessment		2				R2_ZARZ_U03 R2_ZARZ_U04 R2_ZARZ_U06 R2_ZARZ_U07 R2_ZARZ_U22 R2_ZARZ_U22 R2_ZARZ_U23 R2_ZARZ_R01 R2_ZARZ_R03 R2_ZARZ_R03 R2_ZARZ_R04 R2_ZARZ_R05 R2_ZARZ_R05 R2_ZARZ_R05 R2_ZARZ_R05 R2_ZARZ_R06 R2_ZARZ_R06 R2_ZARZ_R07 R2_ZARZ_R07	30	60	2	2	1,4	T/Z	Z	DN	Р	S
6	W08ZZZ- SM8024P	Training and Development				2		K2_ZARZ_U03 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K03 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06	30	75	3	3	2,1	T/Z	Z	DN	Р	S
7	W08ZZZ- SM8017S	Coaching					2	K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07	30	50	2	2	1,4	T/Z	Z	DN	P	S
8	W08ZZZ- SM8004W	Employee Motivation and Engagement	1					K2_ZARZ_W08 K2_ZARZ_W11 K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0,7	T/Z	Z	DN		S
9	W08ZZZ- SM8004P	Employee Motivation and Engagement				1		K2_ZARZ_U04 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04	15	30	1	1	0,7	T/Z	Z	DN	P	S
10	W08ZZZ- SM8005W	Human Resource Analytics	1					K2_ZARZ_W13 K2_ZARZ_W16 K2_ZARZ_W17	15	60	2	1	1,4	T/Z	Z	DN		S
11	W08ZZZ- SM8005L	Human Resource Analytics			2			K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_U23	30	90	3	1,5	2,1	T/Z	Z	DN	P	S
12	W08ZZZ- SM8013W	Research methods in Human Resource Management	1					K2_ZARZ_W07 K2_ZARZ_W16 K2_ZARZ_W17	15	90	3	3	2,1	T/Z	Z	DN		S
13	W08ZZZ- SM8013C	Research methods in Human Resource Management		1				K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U14 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	1,4	T/Z	Z	DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

14	W08ZZZ- SM8013L	Research methods in Human Resource Management			1			K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U14 K2_ZARZ_U22 K2_ZARZ_U23	15	60	2	2	1,4	T/Z	Z	DN	Р	S
15	W08ZZZ- SM8018P	Compensation and Rewarding				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05	30	75	3	3	2,1	T/Z	Z	DN	P	S
16	W08ZZZ- SM8025P	Analytical Workshop				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U20 K2_ZARZ_U22	30	60	2	2	1,4	T/Z	Z	DN	Р	S
17	W08ZZZ- SM8003S	Creative Group Work					2	K2_ZARZ_U04 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K05 K2_ZARZ_K09	30	60	2	2	1,4	T/Z	Z	DN	Р	S
18	W08ZZZ- SM8014S	Resolving Group Conflicts					2	K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K04 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z	DN	Р	S
19	W08ZZZ- SM8019W	Information Systems for Human Resource Management	1					K2_ZARZ_W14 K2_ZARZ_W16 K2_ZARZ_W17	15	50	2	1	1,4	T/Z	Z	DN		S
20	W08ZZZ- SM8019P	Information Systems for Human Resource Management				2		K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U13 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K05	30	50	2	1	1,4	T/Z	Z	DN	P	S
		Total	5	5	3	13	6		480	1200	42	37,5	29,4					

## **4.2.4.2** *Diploma profile* block (min. 21 ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly 1	number	of ho	urs	Learning effect		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8022P	MSc Thesis I				2		K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U14	30	150	5	5	3,5	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K09										
2	W08ZZZ- SM8028D	MSc Thesis II				6		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	90	480	16	16	11,2	T/Z	Z	DN	Р	S
		Total	0	0	0	8	0		120	630	21	21	14,7					

## **4.2.4.3** *Social competences I* block (min. 2 ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly r	number	of ho	urs	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	1
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ-	W08-HRM-ST-IIM/Block Social					2		30	60	2	2	1,4	T/Z	Z		DN	P	S
	SM2HRM01	Competences I																	
	SC1-21Z																		1
1	ZZZ- SM4HRM01 SC2-21Z	Development of Personal Potential					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K09	30	60	2	2	1,4	T/Z	Z		DN	P	S
2	ZZZ- SM4HRM01 SC2-21Z	Communication in Social Media					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K09	30	60	2	2	1,4	T/Z	Z		DN	P	S
		Total	0	0	0	0	2	_	30	60	2	2	1,4						

## **4.2.4.4** *Social competences II* block (min. 2 ECTS points):

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course/ group of	Name of course/group of courses	W	eekly r	number	of ho	urs	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	i
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM4HRM01 SC2-21Z	W08-HRM-ST-IIM/Block Social Competences II					2		30	60	2	2	1,4	T/Z	Z		DN	P	S
1	W08ZZZ- SM8036S	Personal Branding					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z		DN	P	S
2	W08ZZZ- SM8037S	Public Speaking					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z		DN	P	S
		Total	0	0	0	0	2		30	60	2	2	1,4						

### **4.2.4.5** *Human Resources Management* block (min. 3 ECTS points):

No.	Course/ group of	Name of course/group of courses	W	eekly 1	numbei	of ho	urs	Learning		ber of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ-	W08-HRM-ST-IIM/Block Human					2		30	75	3	3	2,1	T/Z	Z		DN	P	S
	SM3HRM01	Resource Management																	
	HRM-21Z																		
1	W08ZZZ- SM8033S	Diversity Management		·			2	K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03	30	75	3	3	2,1	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_K09										
2	W08ZZZ- SM8032S	Developing Cultural Competences					2	K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K09	30	75	3	3	2,1	T/Z	Z	DN	Р	S
		Total	0	0	0	0	2		30	75	3	3	2,1					

#### Altogether for specialization blocks:

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
5	5	3	21	12	690	2025	70	65,5	49

#### 4.3 Training block - concerning principles of training crediting - attachment no. ...

Opinion of the Advisory Faculty Council concerning the rules of crediting training block

Name of training					
Number of ECTS points	Number of	<b>ECTS</b> points for	BU¹ classes	Training crediting mode	Code
Training duration	on		Traini	ng objective	

## 4.4 "Diploma dissertation" block (if it is foreseen at first level studies)

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T. remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Type of diploma dissertation	Licencjat / inżynier / m	agister / magister inżynier*				
Number of diploma dissertation semesters	Number of ECTS points	Code				
3	2 2 5 16	W08ZZZ-SM8015S Seminar I W08ZZZ-SM8023S Seminar II W08ZZZ-SM8022P MSc Thesis I W08ZZZ-SM8028D MSc Thesis II				
Characte	er of diploma dissertation					
Literature surve	ey, project, computer program, et	·c.				
Number of BU¹ ECTS points	17,5					

## 5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	e.g. examination, progress/final test
class	e.g. progress/final test
laboratory	e.g. pretest, report from laboratory
project	e.g. project defence
seminar	e.g. participation in discussion, topic presentation, essay
diploma dissertation	prepared diploma dissertation

#### 6. Range of diploma examination

- 1. Explain and support with examples the evolution of the management concepts.
- 2. What is the importance of the fourth industrial revolution? What are the key impacts?
- 3. Cost accounting in financial planning.
- 4. Explain who the stakeholders are in the concept of CSR.
- 5. Discuss the process of job analysis and job descriptions- methodology and stages.
- 6. Discuss the steps, methods and tools used for people resourcing (recruitment and selection).

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

- 7. Make a comparative analysis of personnel philosophies and the resulting HR policy models in relation to recruitment, professional development, remuneration and employee periodic assessment.
- 8. Discuss the task structure and content of the HR management process.
- 9. Discuss selected three trends in HRM the concept and application in the organization (virtualization of HRM, audit and controlling, candidate, employee experience and wellbeing, evidence based approach).
- 10. Discuss the framework and strategies for International HRM.
- 11. Discuss the process of integrating HRM strategies with general organizational strategies based on the company's strategy.
- 12. Describe the principles and methods of creating competency profiles.
- 13. Describe standard methods of competency assessment.
- 14. List and discuss the basic principles of shaping the periodic employee evaluation system.
- 15. Make a comparative analysis of the concepts and methods of employee evaluation consistent with the human capital approach.
- 16. Discuss the essence of the assessment center technique and the assessment tools used.
- 17. Discuss selected three methods to evaluate employee potential within development center method.
- 18. Characterize organizational strategies and tools of culture management.
- 19. Discuss two methods of evaluating a training program.
- 20. Discuss different types of training programs.
- 21. Compare one-way and two-way contract of coaching. Discuss the assignment and the coaching process itself.
- 22. Discuss the coaching style of management. Discuss the coaching methods used in the manager's work.
- 23. Discuss the concepts of motivation and engagement at work.
- 24. Discuss the types of remuneration systems according to the type of variable part and the principles of designing bonus systems in the practice of enterprises.
- 25. What is the innovation of the remuneration system? Provide innovative ways of rewarding employees.
- 26. Discuss the methods and techniques as well as analytical tools used in the area of employer branding.
- 27. Discuss the essence and basic areas of internal and external employer branding.
- 28. List and characterize key performance indicators (HR KPIs) for selected 3 HR areas: recruitment, development, administration and HR service, onboarding processes, rewarding and motivating, performance appraisal, turnover.
- 29. List and discuss the principles of creating an effective message.
- 30. Describe how the credibility of the message sender should be built. Give examples from different types of organizations.
- 31. Characterize the personality and social determinants of creativity.

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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- 32. Discuss factors supporting and blocking processes creativity in the group. List techniques for creative problem solving.
- 33. Give an example and discuss the strategy of a successful company in the creative industries.
- 34. Define the concept of conflict, list the sources and types of conflicts in the organization and methods of solving them.
- 35. Describe the intra- and intergroup consequences of the conflict.
- 36. Characterize the essence of leadership in the organization.
- 37. List and discuss selected leadership concepts and styles.
- 38. Compare the transactional and transformational styles in leadership. In which situations does one or the other have an advantage?
- 39. The origin of power in modern organizations.
- 40. List and describe the most important factors affecting the effectiveness of teams.
- 41. Characterize the concept of a personal brand and discuss examples of tools for building it.
- 42. Social influence phenomena. Discuss types and rules of it.
- 43. Explain the mechanism of social categorization on the example of the stereotypes associated with the jobs.
- 44. Define the phenomenon of self-presentation. List its categories and describe one.
- 45. List and describe the individual, organizational and social functions of human work.
- 46. Does the personality of people influence their organizational and professional behavior?
- 47. Decision Analytics and Modelling.
- 48. Predictive analytics based on Machine Learning.
- 49. Applications of quantitative data analysis methods in risk analysis for team projects. Examples of application.
- 50. Analysis of dependence for qualitative and quantitative variables and applications in risk analysis
- 51. Examples of applications linear optimization in risk analysis.
- 52. The econometric forecasting model general description of the concept.
- 53. HRM metrics measurement methodology.
- 54. Statistical analysis methods to verify the HRM metrics.
- 55. Integrated management systems tools and techniques
- 56. Information systems to support human resource management decision making.

#### 7. Requirements concerning deadlines for crediting courses/groups of courses for all courses in particular blocks

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

 $<sup>^{7}</sup>$ KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

No.	Course / group of courses code	Name of course / group of courses	Crediting by deadline of (number of semester)
	W08ZZZ-SM8006W	Human Resource Management	1
		Risk Analysis in the realization of organizational projects	1
	W08ZZZ-SM8012W W08ZZZ-SM8012C	Knowledge Economy	2
	.,	Research Methods in Human Resource Management	2
	W08ZZZ-SM8021W W08ZZZ-SM8021C W08ZZZ-SM8021L	Managerial Accounting	3
	W08ZZZ-SM8020W W08ZZZ-SM8020C	Leadership in the Organization	3
		Performance Management in Human Resource Management	4

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes <sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem) <sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned <sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 8. Plan of studies (attachment no. 3)

Approved by faculty student government legislative body:

28.19.2927

Date

name and surname, signature of student representative

DZIEKAN

28.10.2022

dr hab. inż. Katarzyna Tworek, prof. uczelni

Date

Dean's signature

<sup>\*</sup>delete as appropriate

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam - enter E, crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## Zał. nr 4 do ZW 16/2020 Attachment no. 3 to Program of Studies

## **PLAN OF STUDIES**

**FACULTY**: Faculty of Management

MAIN FIELD OF STUDY: Management

**EDUCATION LEVEL:** second-level studies

FORM OF STUDIES: full-time studies

**PROFILE:** general academic MS

**SPECIALIZATION**: Human Resource Management

LANGUAGE OF STUDY: English

In effect since 2023/2024

#### **Plan of studies structure (optionally)**

1) in ECTS point layout (space for scheme of plan)

	CNPS ECTS	CNPS ECTS	CNPS ECTS	CNPS ECTS	
	840 28	870 29	895 33	900 30	
24					24
23					23
22					22
21	Employee Motivation and Engagement		Compensation and Rewarding		21
20	60 2	Knowledge Economy 150 5	75 3		20
19	Creative Group Work	130		Modern Trends in Human Resource	19
18	60 2	Blok Social Competences I	Managerial Accounting 180 6	Management 60 2	18
17	Talent Acquisition & Recruitment	60 2		Blok Social Competences II	17
16	Management	Resolving Group Conflicts		60 2	16
15	90 3	60 2	Leadership in the Organization	Analytical Workshop	15
14	Human Resources Management	Competences Management	140 5	60 2	14
13	90 3	90 3		Blok Management	13
12	Basis of Social Science	Employee Performance Appraisal	Training and Development	60 2	12
11	60 2	60 2	75 3	Employer Branding	11
10		Employee Potential Assessment	Coaching	60 2	10
9	Contemporary Management	60 2	50 2	Performance Management in Human	9
8	150 5	Research Methods in Human	Blok Human Resource Management	Resource Management 90 3	8
7		Resource Management	75 3		7
6	Human Resource Analytics	210 7			6
5	150 5	Work Environment Physics II 60 2	Information Systems for Human Resource Management	MSc Thesis II	5
4		Seminar I 60 2	50 2	480 16	4
3	Risk Analysis in the Realization of	2	MSc Thesis I		3
2	Organizational Projects	Foreign Language II	150 5		2
1	180 0	60 2	Seminar II 50 2	Foreign Language I 30 1	1
	Ī	П	III	IV	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2) in hourly layout (space for scheme of plan)

	2) III Hourry Tayout (sp	dice for scheme of plan)			
	CNPS ECTS	CNPS ECTS	CNPS ECTS	CNPS ECTS	
	840 28	870 29	895 33	900 30	
24					24
23					23
22					22
21			Compensation and Rewarding		21
20	Employee Motivation and Engagement 10010	Knowledge Economy 12000	00020		20
19	Creative Group Work		Managerial Accounting	Modern Trends in Human Resource Management	19
18	00002	Blok Social Competences I	11100	00002	18
17	Talent Acquisition & Recruitment	00002		Blok Social Competences II	17
16	Management	Resolving Group Conflicts		00002	16
15	10020	00002	Leadership in the Organization	Analytical Workshop	15
14	Human Resources Management	Competences Management 00020	22000	00020	14
13	20000	Competences Management 00020		Blok Management	13
12	Basis of Social Science	Employee Performance Appraisal	Training and Development	10001	12
11	20000	02000	00020	Employer Branding	11
10		Employee Potential Assessment	Coaching	02000	10
9	Contemporary Management 10002	02000	00002	Performance Management in Human	9
8	10002	Research Methods in Human	Blok Human Resource Management	Resource Management 11000	8
7		Resource Management 11100	00002		7
6	Human Resource Analytics				6
5	10200	Work Environment Physics II 00010	Information Systems for Human Resource Management 10020	MSc Thesis II	5
4		Seminar I 00001	wanagement 10020	00060	4
3	Risk Analysis in the Realization of		MSc Thesis I		3
2	Organizational Projects 20200	Foreign Language II	00020		2
1	20200	03000	Seminar II 00001	F. Language I 01000	1
	I	II	III	IV	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

## 1. Set of obligatory and optional courses and groups of courses in semestral arrangement

### Semester 1

Obligatory courses / groups of courses Number of ECTS points 28

Onlig	atory Cours	ses / groups of courses		110	шил	ci Oi	LC	ւծ բառ	S 40										
No.	Course/	Name of course/group of courses	W	eekly i	numbe	r of ho	urs	Learning		ber of urs	Numb	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	i
, ,	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8004W	Employee Motivation and Engagement	1					K2_ZARZ_W08 K2_ZARZ_W11 K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0,7	T/Z	Z		DN		S
2	W08ZZZ- SM8004P	Employee Motivation and Engagement				1		K2_ZARZ_U04 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04	15	30	1	1	0,7	T/Z	Z		DN	P	S
3	W08ZZZ- SM8003S	Creative Group Work					2	K2_ZARZ_U04 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K05 K2_ZARZ_K09	30	60	2	2	1,4	T/Z	Z		DN	P	S
4	W08ZZZ- SM8008W	Talent Acquisition & Recruitment Management	1					K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_W16 K2_ZARZ_W17	15	30	1	1	0,7	T/Z	Z		DN		S
5	W08ZZZ- SM8008P	Talent Acquisition & Recruitment Management				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U23 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K07 K2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z		DN	Р	S
6	W08ZZZ- SM8006W	Human Resource Management	2					K2_ZARZ_W04 K2_ZARZ_W05 K2_ZARZ_W08 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_W17	30	90	3	3	2,1	T/Z	Е		DN		K
7	W08ZZZ- SM8001W	Basis of Social Science	2					K2_ZARZ_W10 K2_ZARZ_W11 K2_ZARZ_W12 K2_ZARZ_W17	30	60	2	2	1,4	T/Z	Z		DN		K
8	W08ZZZ- SM8002W	Contemporary Management	1					K2_ZARZ_W03 K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W08 K2_ZARZ_W11	15	60	2	2	1,4	T/Z	Z		DN		K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_W12	l									
9	W08ZZZ- SM8002S	Contemporary Management					2	K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U09 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07	30	90	3	3	2,1	T/Z	Z	DN	P	K
10	W08ZZZ- SM8005W	Human Resource Analytics	1					K2_ZARZ_W13 K2_ZARZ_W16 K2_ZARZ_W17	15	60	2	1	1,4	T/Z	Z	DN		S
11	W08ZZZ- SM8005L	Human Resource Analytics			2			K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U22 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_U35	30	90	3	3	2,1	T/Z	Z	DN	P	S
12	W08ZZZ- SM8007W	Risk analysis in the Realization of Organizational Projects	2					K2_ZARZ_W07 K2_ZARZ_W13 K2_ZARZ_W17	30	90	3	3	2,1	T/Z	Е			PD
13	W08ZZZ- SM8007L	Risk analysis in the Realization of Organizational Projects			2			K2_ZARZ_U08 K2_ZARZ_U10 K2_ZARZ_U11 K2_ZARZ_U12 K2_ZARZ_U14 K2_ZARZ_U23	30	90	3	3	2,1	T/Z	Z		P	PD
		Total	10	0	4	3	4		315	840	28	28	19,5					

Optional courses / groups of courses (minimum ..... hours in semester, ...... ECTS points)

Optic	mai courses	cs / groups or courses (minimum nour						iicster,	•••••	LCI	pom	itsj							
No.	Course/	Name of course/group of courses	V	Veekly	numbe	er of ho	ours	Learning		oer of urs	Numbe	er of ECTS	points	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
		Total																	

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether in semester

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
10	0	4	3	4	315	840	28	28	19.6

#### Semester 2

Obligatory courses / groups of courses Number of ECTS points 25

Oblig	atory cours	ses / groups of courses		110		7 01	LC.	ro pomi	5 40										
No.	Course/	Name of course/group of courses	W	eekly 1	number	of hou	ırs	Learning		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8012W	Knowledge Economy	1					K2_ZARZ_W01 K2_ZARZ_W02 K2_ZARZ_W05 K2_ZARZ_W10	15	90	3	3	2,1	T/Z	Е		DN		K
2	W08ZZZ- SM8012C	Knowledge Economy		2				K2_ZARZ_U01 K2_ZARZ_U05 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z		DN	P	K
3	W08ZZZ- SM8014S	Resolving Group Conflicts					2	K2_ZARZ_U02 K2_ZARZ_U04 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K04 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z		DN	Р	S
4	W08ZZZ- SM8009P	Competences Management				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03	30	90	3	3	2,1	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K07 K2_ZARZ_K08										
5	W08ZZZ- SM8010C	Employee Performance Appraisal		2				K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03 K2_ZARZ_K03 K2_ZARZ_K03 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K06 K2_ZARZ_K07	30	60	2	2	1,4	T/Z	Z	DN	Р	S
6	W08ZZZ- SM8011C	Employee Potential Assessment		2				R2_ZARZ_U04 R2_ZARZ_U06 R2_ZARZ_U06 R2_ZARZ_U07 R2_ZARZ_U22 R2_ZARZ_U22 R2_ZARZ_U23 R2_ZARZ_U30 R2_ZARZ_K01 R2_ZARZ_K03 R2_ZARZ_K04 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K05 R2_ZARZ_K06 R2_ZARZ_K06 R2_ZARZ_K07 R2_ZARZ_K06 R2_ZARZ_K07 R2_ZARZ_K06	30	60	2	2	1,4	T/Z	Z	DN	Р	S
7	W08ZZZ- SM8013W	Research methods in Human Resource Management	1					K2_ZARZ_W07 K2_ZARZ_W16 K2_ZARZ_W17	15	90	3	3	2,1	T/Z	Е	DN		S
8	W08ZZZ- SM8013C	Research methods in Human Resource Management		1				K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U14 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_U33 K2_ZARZ_K04 K2_ZARZ_K05	15	60	2	2	1,4	T/Z	Z	DN	Р	S
9	W08ZZZ- SM8013L	Research methods in Human Resource Management			1			K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U14 K2_ZARZ_U22 K2_ZARZ_U23	15	60	2	2	1,4	T/Z	Z	DN	P	S
10	W08ZZZ- SM8016P	Work Environment Physics II				1		K2_ZARZ_W15 K2_ZARZ_U05 K2_ZARZ_K02	15	60	2	2	1,4	T/Z	Z	DN	P	PD
11	W08ZZZ- SM8015S	Seminar I					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K08	15	60	2	2	1,4	T/Z	Z	DN	P	S
		Total	2	7	1	3	3		240	750	25	25	17,5					

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum 60 hours in semester, 4 ECTS points)

No.	Course/	Name of course/group of courses	W	eekly r	numbei	r of ho	urs	Learning		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU <sup>1</sup> classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	SJO-SM0003	Foreign Language II		3				K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	45	60	2	0	1.5	Т	Z	O		P	КО
	ZZZ- SM2HRM01S C1-21Z	W08-HRM-ST-IIM/Block Social Competences I					2		30	60	2	2	1.4	T/Z	Z		DN	P	S
2	W08ZZZ- SM8031S	Development of Personal Potential					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K09	30	60	2	2	1.4	T/Z	Z		DN	P	S
3	W08ZZZ- SM8030S	Communication in Social Media					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07 K2_ZARZ_K09	30	60	2	2	1.4	T/Z	Z		DN	P	S
		Total	0	3	0	0	2		75	120	4	2	2.9						

#### Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
2	10	1	3	5	315	870	29	27	20.4

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<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### Semester 3

Obligatory courses / groups of courses Number of ECTS points 30

Ophig	atory cours	ses / groups of courses		111	ши	101	EC.	18 pomi	5 JU										
No.	Course/	Name of course/group of courses	W	eekly 1	numbe	of ho	urs	Learning		ber of urs	Numbe	er of ECTS	5 points	Form <sup>2</sup> of		Co	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8018P	Compensation and Rewarding				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06	30	75	3	3	2,1	T/Z	Z		DN	P	S
2	W08ZZZ- SM8021W	Managerial Accounting	1					K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08	15	60	2	2	1,4	T/Z	Е		DN		K
3	W08ZZZ- SM8021C	Managerial Accounting		1				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U08 K2_ZARZ_K01 K2_ZARZ_K02 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05	15	60	2	2	1,4	T/Z	Z		DN	Р	K
4	W08ZZZ- SM8021L	Managerial Accounting			1			K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U08	15	60	2	2	1,4	T/Z	Z		DN	Р	K
5	W08ZZZ- SM8020W	Leadership in the Organization	2					K2_ZARZ_W11 K2_ZARZ_W17	30	90	3	3	2,1	T/Z	Е		DN		K
6	W08ZZZ- SM8020C	Leadership in the organization		2				K2_ZARZ_U02 K2_ZARZ_U03 K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K03 K2_ZARZ_K08 K2_ZARZ_K08	30	50	2	2	1,4	T/Z	Z		DN	P	K
7	W08ZZZ- SM8024P	Training and Development				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03	30	75	3	3	2,1	T/Z	Z		DN	P	S

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<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K06 K2_ZARZ_K08										
8	W08ZZZ- SM8017S	Coaching					2	K2_ZARZ_U06 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K07	30	50	2	2	1,4	T/Z	Z	DN	Р	S
9	W08ZZZ- SM8019W	Information Systems for Human Resource Management	1					K2_ZARZ_W14 K2_ZARZ_W16 K2_ZARZ_W17	15	50	2	2	1,4	T/Z	Z	DN		S
10	W08ZZZ- SM8019P	Information Systems for Human Resource Management				2		K2_ZARZ_U04 K2_ZARZ_U08 K2_ZARZ_U13 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K05	30	50	2	2	1,4	T/Z	Z	DN	P	S
11	W08ZZZ- SM8022P	MSc Thesis I				2		K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U10 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01	30	150	5	5	3,5	T/Z	Z	DN	Р	S
12	W08ZZZ- SM8023S	Seminar II					1	K2_ZARZ_U04 K2_ZARZ_U16 K2_ZARZ_U18 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K08	15	50	2	2	1,4	T/Z	Z	DN	Р	S
		Total	4	3	1	8	3		285	820	30	30	21					

**Optional courses / groups of courses (minimum 30 hours in semester, 3 ECTS points)** 

Ño.	Course/	Name of course/group of courses	W	eekly 1	number	of ho	ırs	Learning		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		Co	ourse/group	of courses	<b>S</b>
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
	ZZZ- SM3HRM0 1HRM-21Z	W08-HRM-ST-IIM/Block Human Resource Management					2		30	75	3	3	2,1	T/Z	Z		DN	P	S
1	W08ZZZ- SM8033S	Diversity Management					2	K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K09	30	75	3	3	2,1	T/Z	Z		DN	Р	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2	W08ZZZ- SM8032S	Developing Cultural Competences					2	K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K03 K2_ZARZ_K09	30	75	3	3	2,1	T/Z	Z	DN	Р	S
		Total	0	0	0	0	2		30	75	3	3	2,1					

Altogether in semester

	Total 1	number o	f hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>
lec	cl	lab	pr	sem					
4	3	1	8	5	315	895	33	33	23.1

#### Semester 4

Obligatory courses / groups of courses Number of ECTS points 25

No.	Course/	Name of course/group of courses	W	eekly 1	number	r of ho	urs	Learning		ber of urs	Numbe	er of ECTS	S points	Form <sup>2</sup> of		C	ourse/group	of courses	
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8025P	Analytical Workshop				2		K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U20 K2_ZARZ_U22	30	60	2	2	1,4	T/Z	Z		DN	Р	S
2	W08ZZZ- SM8026C	Employer Branding		2				K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U05 K2_ZARZ_U06 K2_ZARZ_U23 K2_ZARZ_K04 K2_ZARZ_K06	30	60	2	2	1,4	T/Z	Z		DN	P	K

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ- SM8029W	Performance Management in Human Resource Management	1					K2_ZARZ_W04 K2_ZARZ_W06 K2_ZARZ_W07 K2_ZARZ_W08 K2_ZARZ_W17	15	60	2	2	1,4	T/Z	Е	DN		K
4	W08ZZZ- SM8029C	Performance Management in Human Resource Management		1				K2_ZARZ_U03 K2_ZARZ_U04 K2_ZARZ_U06 K2_ZARZ_U07 K2_ZARZ_U23 K2_ZARZ_K02 K2_ZARZ_K04 K2_ZARZ_K05 K2_ZARZ_K05	15	30	1	1	0,7	T/Z	Z	DN	P	K
5	W08ZZZ- SM8027S	Modern Trends in Human Resource Management					2	K2_ZARZ_W14 K2_ZARZ_U09 K2_ZARZ_U23 K2_ZARZ_K01 K2_ZARZ_K02	30	60	2	2	1,4	T/Z	Z	DN	P	K
6	W08ZZZ- SM8028D	MSc Thesis II				6		K2_ZARZ_W06 K2_ZARZ_W09 K2_ZARZ_W10 K2_ZARZ_U10 K2_ZARZ_U04 K2_ZARZ_U14 K2_ZARZ_U16 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01 K2_ZARZ_K01	90	480	16	16	11,2	T/Z	Z		P	S
		Total	1	3	0	8	2		210	750	25	25	17,5					•

Optional courses / groups of courses (minimum 75 hours in semester, 5 ECTS points)

No.	Course/	Name of course/group of courses	Weekly number of hours			Learning effect		ber of urs	Number of ECTS points		S points	Form <sup>2</sup> of		Course/group of courses					
	group of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	symbol	ZZU	CNPS	Total	DN <sup>5</sup> classes	BU¹ classes	course/gr oup of courses	Way <sup>3</sup> of crediting	University -wide <sup>4</sup>	Concerni ng scientific activities <sup>5</sup>	Practical <sup>6</sup>	Type <sup>7</sup>
1	W08ZZZ- SM8028D	Foreign Language I		1				K2_ZARZ_U15 K2_ZARZ_U16 K2_ZARZ_U17 K2_ZARZ_U19 K2_ZARZ_U20 K2_ZARZ_U21	15	30	1	0	0.5	Т	Z	О		P	КО
	ZZZ- SM4HRM01S C2-21Z	W08-HRM-ST-IIM/Block Social Competences II					2		30	60	2	2	1,4	T/Z	Z		DN	P	S
2	W08ZZZ- SM8036S	Personal Branding					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z		DN	P	S
3	W08ZZZ- SM8037S	Public Speaking					2	K2_ZARZ_U05 K2_ZARZ_U20 K2_ZARZ_U22 K2_ZARZ_K01 K2_ZARZ_K05 K2_ZARZ_K08	30	60	2	2	1,4	T/Z	Z		DN	P	S

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses - enter P. For the group of courses - in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	ZZZ- SM4HRM02B M-21Z	W08-HRM-ST-IIM/Block Management	1				1		30	60	2	2	1,4	T/Z	Z	DN		K
4	W08ZZZ- SM8035W	Corporate Social Responsibility	1					K2_ZARZ_W10	15	30	1	1	0,7	T/Z	Z	DN		K
5	W08ZZZ- SM8035S	Corporate Social Responsibility					1	K2_ZARZ_U05 K2_ZARZ_K02 K2_ZARZ_K07 K2_ZARZ_K09	15	30	1	1	0,7	T/Z	Z	DN	P	K
6	W08ZZZ- SM8034W	Business ethics	1					K2_ZARZ_W10	15	30	1	1	0,7	T/Z	Z	DN		K
7	W08ZZZ- SM8034S	Business ethics					1	K2_ZARZ_U05 K2_ZARZ_K02 K2_ZARZ_K07 K2_ZARZ_K09	15	30	1	1	0,7	T/Z	Z	DN	P	K
		Total	1	1	0	0	3		75	150	5	4	3,3					

Altogether in semester

	Total 1	number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes <sup>5</sup>	Number of ECTS points for BU classes <sup>1</sup>		
lec	cl	lab	pr	sem							
2	4	0	8	5	285	900	30	29	20,8		

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### 2. Set of examinations in semestral arrangement

Course / group of courses	Names of courses / groups of courses ending with examination	Semester
code		
W08ZZZ-SM8006W	Human Resource Management	1
W08ZZZ-SM8007W	2. Risk Analysis in the Realization of Organizational Projects	
W08ZZZ-SM8012W	1. Knowledge Economy	2
W08ZZZ-SM8013W	2. Research Methods in Human Resource Management	
W08ZZZ-SM8021W	1. Managerial Accounting	3
W08ZZZ-SM8020W	2. Leadership in the Organization	
W08ZZZ-SM8029W	Performance Management in Human Resource Management	4

## 3. Numbers of allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester
1	11
2	16
3	9
4	0

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

### Opinion of student government legislative body

2810.2022

Date

Name and surname, signature of student representative

DZIEKAN

r hab. inż. Katarzyna Tworek, prof. uczelni

Date

28.60.2022

Dean's signature

<sup>&</sup>lt;sup>1</sup>BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

<sup>&</sup>lt;sup>2</sup>Traditional – enter T, remote – enter Z

<sup>&</sup>lt;sup>3</sup>Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)

<sup>&</sup>lt;sup>4</sup>University-wide course /group of courses – enter O

<sup>&</sup>lt;sup>5</sup>DN - number of ECTS points assigned to the classes related to the University's academic activity in the discipline/disciplines to which the main field of study is assigned

<sup>&</sup>lt;sup>6</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>&</sup>lt;sup>7</sup>KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

#### **SUBJECT CARD**

Name of subject in Polish: Audyt i Rewizja Gospodarcza Name of subject in English: Audit and Revision of Commerce

Main field of study (if applicable): Management

Specialization (if applicable): Financial management (ZF)

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0046

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	Classes	Laboratory	15	Schillar
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have well-established knowledge of accounting and finance

C1. Gaining knowledge in the field of economic audit and audit in Poland and the European Union C2 Acquiring the ability to carry out selected audit and economic audit procedures in practice

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Has structured knowledge in the field of economic audit and audit in Poland and the European Union,

PEU\_W02 Characterize and know the legal regulations and ethical standards regarding auditing and auditing as well as practicing the profession of chartered accountant in Poland and the European Union, methods of synthetic diagnosis of a company's financial condition in a specific area

PEU\_W03- Knows the tools needed to conduct an audit of an enterprise in a specific area

relating to skills:

PEU U01 Is able to perform an audit and economic audit of an enterprise in a specific area

PEU\_U02 Is able to diagnose the states of enterprises in a specific area PEU\_U03 Is able to identify the causes of the existing state of the enterprise

# relating to social competences:

PEU\_K01 is aware of the importance of audit and economic audit in economic practice

PEU\_K02 understands the need to constantly improve their own knowledge and development

PEU K03 is aware of ethical obligations related to the professional role of the auditor

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Internal audit: history, evolution and current state. The beginnings and development of internal audit in Poland. Impact of European Union guidelines on the introduction of internal audit in Poland	1
Lec 2	Audit and economic audit - concepts, classification and functions	2
Lec 3	Scope and standards of audit application. Corporate governance: the essence, types and methods	2
Lec 4	Links between internal audit and internal control and external audit. Internal audit cell management	2
Lec 5	Objectives, duties and powers of the internal auditor. Standards for practicing the profession of statutory auditor. Standards for the Professional Practice of Internal Auditing	2
Lec 6	Selected areas of internal audit and audit work methodology. The role of internal audit in the organization. Audit of risk assessment and management processes in the organization. Stages of implementation of the audit task (planning, supervising, documenting, analysing and assessing the results of work, transferring audit results, monitoring the implementation of recommendations).	2
Lec 7	The essence of credibility of tax and accounting documents, irregularities and errors in economic records Ethics in the profession of internal auditor.	2
Lec 8	Final test	2
	Total hours	15
	Project	Number of hours
Proj 1	Presentation of assumptions, discussion of the principles of conducting the research in the selected area of activity	1
Proj 2	Information in audit tasks (selection of the area of an audit study in a selected research entity) - study planning	2
Proj 3	Information on results and monitoring of progress - documentation of the study	2
Proj 4	Statistics and sample testing	2
Proj 5	Discussion of audit results	2
Proj 6	Final report and opinion (study conclusions) - remedial recommendations	2
,		

Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. Consultations
- N4. N5. Presentation of diagnostic work
- N6. Discussion of effects (or reasons for failure) during the presentation of student work results

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03	Colloquium from the lecture
F2	PEU_W01 PEU_W02 PEU_W03	Participation in problem discussions
F3	PEU_U01 PEU_U02 PEU_U03	Assessment of the degree of understanding of the issue
F4	PEU_U01 PEU_U02 PEU_U03	Preparation of diagnostic work in the form of a project
F5	PEU_U01 PEU_U02 PEU_U03 PEU_ K01 PEU_ K02 PEU_ K03	Project defence

P( wykład)= F1

P (projekt) = 0.2\*F2+0.3\*F3+0.4\*F4+0.1\*F5

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Audyt finansowy w jednostkach gospodarczych: teoria i praktyka: procedury, metody i techniki badania sprawozdań finansowych /Józef Marzec, Jan Śliwa. Warszawa: Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, 2012.
- [2] Audyt wewnętrzny w doskonaleniu instytucji: aspekty teoretyczno-metodologiczne i praktyczne/red. nauk. Marek Lisiński; [aut. Edyta Bielińska-Dusza et al.], Warszawa: Polskie Wydawnictwo Ekonomiczne, 2011.
- [3] Dokumentacja biegłego rewidenta z badania sprawozdań finansowych / Agnieszka Piechocka-Kałużna, Agnieszka Kryśkiewicz-Burnos, Radosław Kałużny; red. nauk. Agnieszka Piechocka-Kałużna, [Dokument elektroniczny] Warszawa: Wydawnictwa Profesjonalne PWN, 2011
- [4] Rachunkowość, audyt i kontrola w zarządzaniu [Dokument elektroniczny] / pod red. Ireny Sobańskiej i Mikołaja Turzyńskiego

### **SECONDARY LITERATURE:**

- [1] Audyt finansowy /Kazimiera Winiarska. Warszawa: Polskie Wydawnictwo Ekonomiczne, 2009. Powtórzenie do egzaminu CIA.Cz. 1,Rola procesu audytu wewnętrznego w zakresie ładu organizacyjnego, ryzyka i kontroli /Irvin N. Gleim; The Institute of Internal Auditors. Stowarzyszenie Audytorów Wewnętrznych IIA Polska. Warszawa: Ernst & Young Academy of Business, 2011
- [2] Audit wewnętrzny według norm ISO planowanie, realizacja, dokumentowanie i ocena / [Mirosław Lewandowski, Irena Ochyra, Dorota Konkolewska]. Warszawa: Wydawnictwo Wiedza i Praktyka, cop. 2011.
- [3] Audyt wewnętrzny w praktyce: audyt operacyjny i finansowy /Konrad Knedler, Mirosław Stasik; Polska Akademia Rachunkowości. Łódź: Polska Akademia Rachunkowości, 2010 [4] Korygująca funkcja rewizji finansowej w systemie rachunkowości /Mariusz Andrzejewski. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego, 2012.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Agnieszka Parkitna

agnieszka.parkitna@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Badania Operacyjne Name of subject in English: Operations Research Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0037

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Examination		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

\*delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in algebra and logic
- 2. Basic skills in computer programming

#### SUBJECT OBJECTIVES

- C1. Showing students the basic optimization problems such as: linear programming, integer programming and network flow problems; indication of the practical applications of these problems.
- C2. Showing students the basic methods of solving the above problems.
- C3. Acquisition by students of the ability to identify decision variables, input data and objectives in practical decision situations and build a mathematical programing model.
- C4. Acquisition by students of the ability to interpret the solutions of the optimization models.
- C5. Presenting the software for solving optimization problems.

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Has specialist knowledge of the basic methods used in operational research.

relating to skills:

PEU\_U01 - Is able to apply operational research methods as a tool supporting advanced decision-making analyzes.

PEU\_U02 - Is able to use specialized software for building and solving optimization models.

#### PROGRAM CONTENT Number of Lectures hours Operations research methodology; linear programming problem and its 1 Lec 1 applications. Graphical method and the simplex algorithm for linear programming. 2 Lec 2 2 The simplex algorithm and sensitivity analysis for linear programming. Lec 3 Integer programming and its applications. 2 Lec 4 Branch and bound algorithm for integer programming. 2 Lec 5 Basic network problems, part I (the shortest path and and maximum flow 2 Lec 6 problems). Basic network problems, part II (transportation problem). 2 Lec 7 Multicriteria programming – applications and solution methods. 2 Lec 8 15 **Total hours** Laboratory Number of hours Introduction. Presentation of optimization software. Graphical method of solving Lab 1 linear programming problems. 2 Lab 2 Building and solving linear programming models for practical problems. Lab 3 Building and solving linear programming models for practical problems. 2 Lab 4 Building and solving linear programming models for practical problems. 2 Lab 5 Building and solving linear programming models for practical problems. 2 Solving linear programming problems by using the simplex algorithm. Sensitivity Lab 6 2 analysis in linear programming. Building and solving integer programming models for practical problems. 2 Lab 7 Building and solving integer programming models for practical problems. 2 Lab 8 2 Lab 9 Building and solving integer programming models for practical problems. Lab 10 Solving integer programming problems using the branch and bound algorithm. 2 Lab 11 Building and solving network flow models for practical problems. 2 Lab 12 Building and solving network flow models for practical problems. 2 Lab 13 Building and solving network flow models for practical problems. 2 Lab 14 Preparation for the test. 2

#### TEACHING TOOLS USED

30

N1. Presentation

Lab 15 Written test.

Total hours

- N2. Solving tasks
- N3. Using optimization software

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(duffing sefficater), I	number	
concluding (at semester		
end)		
P	PEU_W01	Examination
	PEU_U01 PEU_U02	Written test
P=1		

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] H. Taha. Operations research. An introduction. Prentice Hall 2011
- [2] F. S. Hiller, G. J. Liberman. Introduction to operations research. Mc Graw Hill 2003
- [3] W. L. Winston. Operations research: applications and algorithms. PWS-KENT Publishing Company 1987
- [4] H. Wagner. Badania operacyjne. PWE Warszawa 1980.

### SECONDARY LITERATURE:

- [1] H. P. Williams. Model building in mathematical programming. Wiley 1990.
- [2] R.K. Ahuja, T. L. Magnanti, J. B. Orlin. Network flows: theory, algorithms and applications. Prentice Hall, Inc., 1993
- [3] R.S. Garfinkel, G. L. Nemhauser. Programowanie całkowitoliczbowe. PWN, 1978
- [4] M. S. Bazaraa, J. J. Jarvis, H. D. Sherali. Linear programming and network flows. Wiley 2010.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Budżetowanie Name of subject in English: Budgeting

Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0047

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of accounting and finance.
- 2. Basic knowledge of enterprise organization and management

#### SUBJECT OBJECTIVES

- C1 Acquiring knowledge on budgeting, including its stages, methods and tools used
- C2 Ability to develop short- and long-term plans along with the reorganization of the organizational structure and accounting system for the needs of budgeting

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - structured knowledge of budgeting in the enterprise

PEU\_W02 - characterize and know the basic methods, techniques and tools used in the budgeting process

relating to skills:

PEU\_U01 - can develop a budget for an enterprise,

PEU\_U02 - can propose changes in the organizational structure or record system for the budgeting process

PEU\_U03 - can propose budgeting solutions for a selected organization relating to social competences:

PEU\_K01 - understands the importance of budgeting in business practice,

PEU\_K02 - understands what management is through budgeting

	Lectures	Number of hours
Lec 1	Budgeting as part of management and planning system. Genesis of budgeting. Budgeting goals and tasks	2
Lec 2	Budgeting procedure - budgeting stages. Budgeting models.	2
Lec 3	Methods, procedures, principles used in the budgeting process. Budgeting techniques (incremental, from scratch, co-created, programmed)	2
Lec 4	Budgetable elements - responsibility centers, cost centers.	4
Lec 5	Types of budgets: main, partial, project, tasks, as well as operational, cash flow, capital.	2
Lec 6	Organization of accounting for budgeting purposes.	1
Lec 7	Final test	2
	Total hours	15
	Project	Number of hours
Proj 1	Understanding the budgeting system in the selected enterprise along with reviewing the budget tables. Proposing or improving the existing solutions in the area of budget preparation in the studied enterprise. Analysis of existing solutions, especially in the selected sphere of business activity	14
Proj 2	Assessment of student essays	1
	Total hours	15
	TEACHING TOOLS USED	
V1. In:	formative lecture	
N2. M	ultimedia presentation	
	actical project	

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02	Final test of the lecture
F2		Evaluation of a practical project developed on a real enterprise
F3		
С	-	

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- Budżetowanie operacyjne i finansowe w przedsiębiorstwie: metody i przykłady. S. Nahotko. Bydgoszcz: Oficyna Wydawnicza Ośrodka Postępu Organizacyjnego, 2002
- [2] Budżetowanie w przedsiębiorstwie, aspekty rachunkowe, finansowe i zarządcze. M. Dylewski, B. Filipiak, P. Szczypa, CeDeWu Wydawnictwa Fachowe, 2010.
- [3] Budżetowanie w przedsiębiorstwie, E. Nowak, B. Nita. Warszawa, Oficyna Wolters Kluwer Business, 2010. [4]

### SECONDARY LITERATURE:

- [1] Inwestycje: capital budgeting budżetowanie kapitałowe. W. Pluta. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce, 1995.
- [2] Budżetowanie operacyjne, finansowe i kapitałowe w przedsiębiorstwie. W. Szczęsny, J. Śliwa, Warszawa, Wydawnictwo C. H. Beck, 2010.
- [3] Budżetowanie jako narzędzie rachunkowości zarządczej. E. Duda-Piechaczek, Gliwice: Helion, 2007.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Arkadiusz, Górski, <u>Arkadiusz.gorski@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name in Polish: Controlling Name in English: Controlling

Main field of study (if applicable): Zarządzanie (Management)

Specialization (if applicable): -

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0038

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	60			60	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	2			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management and the fundamentals of accountancy.

### **SUBJECT OBJECTIVES**

- C1 To provide the students with the fundamental knowledge about the essence of controlling.
- C2 To provide the students with the knowledge about the functional and organizational solutions of controlling.
- C3 To provide the students with the knowledge about the essence of basic tools of controlling as well as the scope of their use.
- C4 Shaping and developing the ability of evaluation the achievements of the organization in conjunction of the implementation of controlling.
- C5 Shaping and developing the ability of evaluation and improvement of existing or designing new functional, organizational and instrumental solutions of controlling in chosen organization.
- C6 Shaping the competences of planning, initiating and implementing the changes in the organization.
- C7 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

#### SUBJECT LEARNING OUTCOMES

### relating to knowledge:

- PEU\_W01 Has a knowledge abort the essence of controlling. Understands the importance of restructuring processes related to the implementation of controlling in the organization.
- PEU\_W02 Knows the components and functions of controlling. Has a knowledge about the controlling concepts.
- PEU\_W03 Knows the organizational solutions of controlling, including the solutions relating to the controllers and responsibility centers . Knows the factors influencing the formation of organizational solutions of controlling.
- PEU\_W04 Has knowledge about the tools of controlling, including the controlling profit and loss account, budgeting, information and reporting system, methods of measurement and evaluation of organization performance.

#### relating to skills:

- PEU\_U01 Can evaluate the organization performance relating to the implementation of controlling.
- PEU\_U02 Can evaluate and improve the existing or design the new solutions of controlling relating to the concept of controlling, controllers (including them responsibilities, rights and liabilities) and responsibility centers.
- PEU\_U03 Can evaluate and improve the existing or design the new solutions of controlling relating to the chosen tools of controlling.

### relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

	PROGRAMME CONTENT				
	Lectures				
Lec 1	Introduction, overview of the lecture.	1			
Lec 2	The essence and the features of controlling. Concepts of controlling.	2			
Lec 3	Components and functions of controlling.	1			
Lec 3	Requirements for controlling implementation and functioning. Factors influencing the shape of solutions of controlling.	1			
Lec 4	Organization of controlling. Defining the controlling responsibility centers.	2			
Lec 5	Profit and loss account in controlling.	2			
Lec 6	Budgeting in controlling.	2			
Lec 7	Information and reporting system in controlling.	2			
Lec 8	Summary (controlling developement trends). Colloquium.	2			
	Total hours	15			
	Project	Number of hours			
	Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams. Distribution of the survey questionnaires and discussion on it. Detailed explanation of the task 1: the method of the general characteristics of the organization, including the method of presentation of basic information about the organization, its organizational structure, human potential, and identification of its environment.	2			

	TEACHING TOOLS USED	
	Total hours	15
Proj 7	Summary of project. Final assessment.	1
Proj 6-7	Presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
Proj 5	Explanation of the presentation of the project. The consultation of the task 4: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 4	Detailed explanation of the task 4: formation (b) or improvement (a) instrumental solutions of controlling for the chosen organization (including solutions relating to Profit and loss account in controlling, budgeting, information and reporting system in controlling and methods of measurement and evaluation of organization performance). The consultation of the task 3: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 3	Detailed explanation of the task 3: formation (b) or improvement (a) organizational solutions of controlling for the chosen organization (including solutions relating to the controlling concept, its organization and responsibility centers). The consultation of the task 2: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 2	Detailed explanation of the task 2: in the diagnosis of existing solutions of controlling in analyzed organization (for two situations: a) when controlling is implemented in the organization, and b) if controlling solutions are not implemented in the organization). Declaration of the chosen object. Consultation of the task 1: work in project teams - consulting the substantive issues, evaluation of student progress.	2

- N1. Traditional lecture with multimedia presentations
- N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation
  N6. A written report an analysis of the case study

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04	Colloquium.
F2	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Project of controlling solutions (written report).
F3	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Multimedia presentations relating to controlling solutions prepared by students
F4	PEU_U01, PEU_U02	Activity on the project. Participation in the discussion.

	PEU_U03, PEU_K01	
	PEU_K02, PEU_K03	
P(lecture)=F1		

P(project)=0.7\*F2+0.2\*F3+0.1\*F4

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Marciniak S., Controlling. Teoria, zastosowania, Difin, Warszawa 2008.
- Vollmuth H. J., Controlling. Planowanie, kontrola, kierowanie, Agencja Wydawnicza "Placet", Warszawa 2000.
- Nowosielski S. Centra kosztów i centra zysku w przedsiębiorstwie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2001.
- Goliszewski J., Controlling. Koncepcja, zastosowania, wdrożenie, Oficyna Wolters Kluwer business, Warszawa 2015.
- 5. Kuc B.R., Kontroling dla menedżerów, wyd. Helion, Gliwice 2011.
- Bieńkowska A., Kształtowanie rozwiązań i wzorce controllingu w organizacji, Oficyna Wydawnicza PWr, Wrocław 2015.

### SECONDARY LITERATURE:

- 1. Controlling w działalności przedsiębiorstwa, pod red. E. Nowaka, PWE, Warszawa 2004.
- 2. Sierpińska M., Niedbała B. Controlling operacyjny w przedsiębiorstwie, PWN, Warszawa 2003.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, <u>agnieszka.bienkowska@pwr.wroc.pl</u> in cooperation:

Anna Zabłocka-Kluczka, <u>anna.zablocka-kluczka@pwr.wroc.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Finanse publiczne Name of subject in English: Public Finance Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0055

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	
Number of hours of total student workload (CNPS)	60			60	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	2			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Elementary knowledge of macroeconomics, finance, and market financial system
- 2. (project) Ability to build a simple predictive model

### **SUBJECT OBJECTIVES**

C1: to develop theoretical and practical knowledge in the field of financial management issues in public sector institutions, including elementary interpretation of legal instruments

C2: to know and understand premises for defining public sector objectives, procedures for the acquisition and disbursement of public funds (revenues and expenditures), specificity of the public sector financial analysis, and approaches to determine the effectiveness of the public budget C3: to understand and be able to apply methods for: analysing of the interdependences between elements of the public financial system, comparative analysis and evaluation of the public sector finances at local, regional, and macroeconomic levels, and to develop ability to interpret the results of the analyses

C4: to develop skills in acquisition and use of public finance data from Polish and foreign Internet sources, publishing key statistical, financial, and legal documents and data

#### SUBJECT LEARNING OUTCOMES

### relating to knowledge:

- PEU\_W01 knows and explains the premises and determinants of defining public sector objectives (public tasks) in the context of the strategic objectives in Poland (SRK) and the EU (Europe2020);
- PEU\_W02 distinguishes and characterizes the basic elements of public financial system, the relationships between them and the relationship with the market financial system;
- PEU\_W03 knows and explains the principles of collection and disbursement of public funds in national government, local government, and social security sub-sectors;
- PEU\_W04 distinguishes between and explains main cyclical and structural determinants of short term (budget deficit) and long term (public debt) imbalances in public finances, standards of measurement (GSF, ESA), and public debt instruments;
- PEU\_W05 has basic knowledge of planning, financial and budgetary reporting, as well as methodology for economic analysis of the public finances;
- PEU\_W06 distinguishes and explains: fiscal rules, Performance Based Budgeting, effectiveness and efficiency of the public budget (PPF), methods of comparative analysis of international public finance systems (HDI, WGI), and International Standards (IPSAS)

### relating to skills:

- PEU\_U01 interprets and analyzes the interdependences of the elements of public finance system
- PEU\_U02 finds and obtains data on public finances from Polish and foreign internet sources on public sector statistics (e.g. the Central Statistical Office, EUROSTAT, OECD), as well as financial (e.g. Ministry of Finance) and legal (e.g. ISAP Sejm) issues
- PEU\_U03 is able to perform comparative analysis, and then interpret and evaluate financial public sector phenomena at the local and regional level (local self-government: comparing selected LGUs), and the macro level (public finance sector, the state budget comparing Poland with selected EU / OECD countries)
- PEU\_U04 is able to use self-selected specialized statistical and analytical methods for the analysis of specific processes in the public finance sector, including ability to develop a simple predictive model.

### relating to social competences:

PEU\_K01 - can interact and work in a team to solve a specific task with a clear distinction of the role of and input by individual members of the project team

	Lectures	Number of hours
Lec 1	Introduction to economics and engineering of the public sector	2
Lec 2	Perspectives, sources and methods of analysis of public finances	2
Lec 3	Functions of public finances; needs, tasks and public decisions	2
Lec 4	Public and market financial system. The legal basis	2
Lec 5	Public budget, public funds, public revenues and expenditures	2
Lec 6	Public finances in the local government sub-sector	2
Lec 7	Public finances in the insurance sub-sector	2
Lec 8	Economic phenomena at the level of the national government	2
Lec 9	Efficiency and other measures of the results of public expenditures	2
Lec 10	Ratio analysis, national and international benchmarking	2
Lec 11	Imbalances in public finances; budget deficit and public debt	2
	Methods of financial and budgetary planning; fiscal rules	2
Lec 13	New Public Management, PBB approaches, IPSAS standards	2
Lec 14	Test	2
Lec 15	Case study - activities involving a public sector decision-maker	2
	Total hours	30
	Project	Number of hours
Proj 1	Discussion of the subject matter and the scope of the project work	1
J	Methodology of case studies in public finance / public sector	2
Proj 2	Sources of analytical information at local and regional level	2
Proj 2 Proj 3	Sources of analytical information at local and regional level Sources of analytical information at macro level and foreign web-pages	2 2
Proj 2 Proj 3 Proj 4		
Proj 2 Proj 3 Proj 4 Proj 5	Sources of analytical information at macro level and foreign web-pages Classes consultation	2
Proj 2 Proj 3 Proj 4 Proj 5	Sources of analytical information at macro level and foreign web-pages Classes consultation Classes consultation	2 2
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6	Sources of analytical information at macro level and foreign web-pages Classes consultation Classes consultation	2 2 2

# TEACHING TOOLS USED

- N1. Multimedia presentations
  N2. Teaching materials, including spreadsheets, published on the lecturer's web page
  N3. (Student's own work) standard office tools and any forecasting software (e.g. Excel, SPSS, Statistica)

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 to PEU_W06	optional 5-minute short tests after lectures 2-13
F2		ongoing monitoring of the implementation of the project work in the classroom
P1	PEU_W01 to PEU_W06	test at lecture 14
P2	PEU_U01 to PEU_U04	evaluation of project presentation, assessment of project work

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Kaczurak-Kozak M., Winiarska K., Rachunkowość budżetowa, Wolters Kluwer, Warszawa, 2011
- [2] Malinowska E., Misiąg W., Finanse publiczne w Polsce (wydanie 2), LexisNexis, Warszawa, 2007
- [3] Owsiak S., Finanse publiczne współczesne ujęcie, WN PWN, Warszawa, 2017 (także wersja elektroniczna w ibuk)
- [4] System finansowy w Polsce, pr. zb. pod red. B. Pietrzaka, Z. Polańskiego, B. Woźniak, WN PWN, Warszawa, 2018-2019

### SECONDARY LITERATURE:

- [1] Administracja publiczna, pr. zb. pod red. J. Hausnera, PWN, 2019
- [2] Hausner J., Zarządzanie publiczne, WN Scholar, Warszawa, 2008
- [3] Nowe zarządzanie finansami publicznymi, pr. zb. pod red. S. Owsiaka, PWE, Warszawa, 2011
- [4] Nowe zarządzanie publiczne skuteczność i efektywność, pr. zb. pod red. T. Lubińskiej, Difin, Warszawa, 2009
- [5] Postuła M., Finanse publiczne w architekturze globalnej gospodarki, Difin, 2017
- [6] Public finances and the new economic governance in the European Union, S. Owsiak (ed.), PWN, Warszawa, 2018
- [7] Współczesne finanse publiczne, pr. zb. pod red. A.Alińskiej, B. Woźniak, Difin, 2015
- [8] Zarządzanie finansami publicznymi. Planowanie wieloletnie. Efektywność zadań publicznych. Benchmarking, pr. zb. pod red. S. Franek, M. Będzieszak, Difin, 2014

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marek Lubicz; marek.lubicz@pwr.wroc.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Fizyka Środowiska Pracy II Name of subject in English: Work Environment Physics II

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0029W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠				

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic mathematical and statistical skills (verified by maturity exam or higher).

A course in physics (or equivalent) completed at 1<sup>st</sup> level of studies.

#### SUBJECT OBJECTIVES

- C1: Acquisition of specialist knowledge of the physical factors of the work environment affecting the employee, necessary in processes of manufacturing and human resource management.
- C1.1: Gaining knowledge of the physical aspects of the work environment: the reasons for the impact of physical factors on the employee, how they interact, potential psychophysical effects and ways to minimize their negative impact.
- C1.2: Acquiring knowledge about the ergonomic optimization of working conditions using chosen methods and tools for measuring, assessment and design the physical work environment, taking into account the physical, sensory and mental capabilities and limitations of the employee.

#### SUBJECT LEARNING OUTCOMES

In the field of knowledge:

PEU\_W01: student knows the individual physical factors of the work environment; knows for what reasons (physical, anatomical, physiological, psychological) and how

they affect people in the work process.

PEU\_W02: student knows the chosen methods and tools for measuring and assessing these factors, as well as for designing and optimizing the physical work environment in accordance with an ergonomic approach.

	PROGRAM CONTENT	
Lectures		
Lec 1	Introduction. Physical work environment as part of the human-machine- environment system. Review of physical factors affecting man in the work process. An ergonomic approach in the design and assessment of the working environment.	2
Lec 2	Microclimate. Thermodynamics of the human body. Effects of thermal homeostasis disorder. Thermoregulatory mechanisms of physical and biochemical nature. Thermal insulation parameters of clothing as a barrier between man and thermal environment. Microclimate evaluation methods.	2
Lec 3	Lighting. Structure of the eye's optical path. Signal processing by the neural system. Characteristics of perception of brightness, color and geometric patterns. Requirements related to ensuring appropriate conditions for visual work. The use of color models in the design of the visual environment.	2
Lec 4	Noise. Hearing structure and its influence on hearing ability. Perception of pitch and loudness of sound as examples of phenomena subject to Weber-Fechner and Stevens laws. Noise as a harmful factor and stressor; physiological and psychological effects of being in noise. Organizational and technical measures to minimize exposure to noise in the workplace.	2
Lec 5	Spatial relations between a man and the workplace. Impact of mismatch of the position to the anthropometric features of the employee on the enforcement of body posture in biomechanical terms. Location of signaling and control devices. Application of Fitts law in human-machine interface design.	2
Lec 6	Methodology of researching the impact of the physical work environment on humans. 1. Psychophysical approach in measuring the subjective perception of physically measurable stimuli. The use of questionnaire methods and AHP approach in research and measurement of a subjective nature.	2
Lec 7	Methodology of researching the impact of the working environment on humans. 2. Designing a factor experiment. Application of statistical methods in data analysis.	2
Lec 8	Final test	1
	Total hours	15

# N1. Lecture with slides and multimedia materials

- N2. Consultations
- N3. Own student work independent literature studies and preparation for the final test

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

· E	Learning outcomes number	Way of evaluating learning outcomes achievement
,	PEU_W01	Written final test
	PEU_W02	
С		

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [2] Halliday D., Resnick R., Walker J., Podstawy fizyki, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [3] Hecht E., Optyka, Wydawnictwo Naukowe PWN, Warszawa 2012
- [4] Jaroszyk F. (red.), Biofizyka, Wydawnictwo Lekarskie PZWL, Warszawa 2014
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- [10] Taylor J.R., Mechanika klasyczna, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [11] Traczyk W.Z., Trzebski A. (red.), Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej, Wydawnictwo Lekarskie PZWL, Warszawa 2015
- [12] Wykowska M., Ergonomia jako nauka stosowana, Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2009

### SECONDARY LITERATURE:

- [1] Alton Everest F., Pohlmann K.C., Podręcznik akustyki, Wydawnictwo Sonia Draga, Katowice 2013
- [2] Bell P.A., Greene T.C., Fisher J.D., Baum A., Psychologia środowiskowa, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2004
- [3] Brzeziński J., Metodologia badań naukowych i diagnostycznych [w:] Psychologia. Podręcznik akademicki, t. 1: Podstawy psychologii, Strelau J. (red.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000
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- [5] Jorasz U., Wykłady z psychoakustyki, Wydawnictwo Naukowe UAM, Poznań 1998
- [6] Kabza Z., Kostyrko K., Metrologia mikroklimatu pomieszczenia i środowiskowych wielkości fizycznych. cz. 1 i 2, Oficyna Wydawnicza Politechniki Opolskiej, Opole 2003/2004
- [7] Karwowski W. (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis, 2001
- [8] Malinowski A., Bożiłow W., Podstawy antropometrii. Metody, techniki, normy, Wydawnictwo Naukowe PWN, Warszawa 1997
- [9] Młodkowski J., Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN, Warszawa 1998
- [10] Rejmer K., Ciepło zimno czyli termodynamika fenomenologiczna, Wydawnictwo Sorus, Poznań 2013
- [11] Śliwowski L., Mikroklimat wnętrz i komfort cieplny ludzi w pomieszczeniach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2000

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Jach, katarzyna.jach@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Komunikacja w organizacji Name of subject in English: Organizational communication

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0101

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1 Familiarizing students with the basic issues related to communication in the organization
- C2 Providing students with tools to assess the effectiveness of communication in the organization
- C3. Creating the opportunity to solve problems and group work together

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Student knows the basic terms and elements related to communication in the organization
- PEU\_W02 Student knows the tools used to identify and evaluate communication in the organization

relating to skills:

- PEU\_U01 Student is able to construct tools for identifying and diagnosing the state of communication in the organization
- PE<u>U\_U02</u> Student is able to propose changes in communication based on a diagnosis of its condition

relating to social competences:

PEU\_K01 Student is able to set priorities in own work and in cooperation with others

PEU\_K02 Student is able to cooperate and work in a group

PEU\_K03 Student demonstrates courage in communicating and defending one's views. He is prepared to convince and negotiate in the name of achieving common goals

	PROGRAM CONTENT	
Lectures		
Lec 1	Introduction to the subject. Course information and organizational matters	1
Lec 2	Interpersonal and group communication	2
Lec 3	Communication in the organization and its culture	2
Lec 4	Communication behavior styles and management styles	2
Lec 5	Internal communication - tools, goals, barriers, methods of testing internal communication	2
Lec 6	Organizational external communication and crisis communication.	2
Lec 7	Communication practice; organization of meetings, meetings and conferences	2
Lec 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction, organizational matters	1
Sem 2	Group communication, communication within the organization	2
Sem 3	Leaders and their styles of action and communication	2
Sem 4	Communication in crisis situations. Image crises	2
Sem 5	Auditing tools; interview, observation, content analysis	2
Sem 6	Audit tools: questionnaire surveys - survey, structured interview	2
Sem 7	Presentation and analysis of student reports	2
Sem 8	Presentation and analysis of student reports	2
	Total hours	15
	TEACHING TOOLS USED	

### TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works
- N6. Presentation of reports prepared by students

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester end)		
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback

F2 Works prepared in groups PEU_W01- PEU_W02 PEU_U01 PEU K01-PEK K02	Oral feedback. Work evaluation
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C Report on students' own analysis regarding internal or external communication of the organization; knowledge test

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- 1. Cornelissen J., (2012) *Komunikacja korporacyjna. Przewodnik po teorii i praktyce*, Warszawa: Wolters, Kluwer
- 2. Hamlin, S.,(2008) Jak mówić, żeby nas słuchali Poznań: Rebis
- 3. Brzezińska, E., Paszkowska-Rogacz, A. (2009) Człowiek w firmie Warszawa: Difin SA

### SECONDARY LITERATURE:

- 1. Olędzki, J., Tworzydło, D.(ed) *Leksykon Public Relations* Rzeszów: Wydawnictwo Newsline Sp.& Bonus Liber Sp. z o. o.
- 2. Stępowski R. (2016) Komunikacja marketingowa 2030. Technologiczna rewolucja i mentalna ewolucj
- 3. Decker, B. (2010) Wystąpienia publiczne. Trening dla menedżerów. polityków i ekspertów PR

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Koncepcje zarządzania Name of subject in English: Management concepts Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0030

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			60	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			2	1
including number of ECTS points for practical (P) classes				2	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### 1. Principles of management

#### **SUBJECT OBJECTIVES**

The acquisition of basic knowledge, taking into account aspects of application, about:

- C1. schools and approaches in the organization and management theory,
- C2. methods used in the management,
- C3. management concepts,
- C4. effectiveness of the organization.

The acquisition of basic skills about:

- C5. identification of management problems and issues in the organization,
- C6. formulation and matching solutions for the management and substantive issues in the organization,
- C7. analysis and evaluation of selected characteristics of the organization.

#### SUBJECT LEARNING OUTCOMES

### relating to knowledge:

- PEU\_W01 has a basic knowledge of schools and approaches in organization and management theory
- PEU\_W02 has extended knowledge of the methods used in the management
- PEU\_W03 has expanded the knowledge of management concepts
- PEU W04 can identify the basic problems of management
- PEU\_W05 has a basic understanding of the concept of organizational efficiency

### relating to skills:

- PEU\_U01 at a basic level can choose, justify and apply the methods and techniques to identify, analyze and solve complex management problems and issues in the organization
- PEU\_U02 at a basic level can formulate solutions to complex management problems and issues in the organization
- PEU\_U03 at a basic level can analyze and evaluate the objectives, features and elements of the organization
- PEU\_U04 is able to identify and analyze common problems of management

### relating to social competences:

- PEU\_K01 is aware of the need to develop knowledge and skills in the organization and management science
- PEU\_K02 is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations
- PEU\_K03 is prepared to communicate, persuade and defend his views

#### PROGRAM CONTENT Number of Lectures hours The idea of management concepts and methods. The role and shortcomings 2 Lec 1 of to ols. The practical suitability of management concepts and methods. The scientific management: its precursors, scientific organization of work, 2 Lec 2 typical management methods. Administrative management theory school: Henri Fayol and classical 2 Lec 3 organization theory, theory of bureaucracy - the concept of the ideal type of organization. Methods of administrative management theory school. Human relations. Management methods used in human relations approach. Lec 4 2 System theory: The concept of the system, the hierarchy of systems. Lec 5 Systemic point of view. The organization as an open system. Management methods used in a systems approach. Contingency theory. Management methods used in the contingency theory. 2 Lec 6 2 The new wave in management. Management methods used in the new Lec 7 wave.

Lec 8	Lean management	2
Lec 9	Business Process Reengineering	2
Lec 10	Time Based Management	2
Lec 11	Benchmarking	2
Lec 12	Outsourcing	2
Lec 13	Organizational learning	2
Lec 14	Network organization	2
Lec 15	Virtual organization	2
	Total hours	30
	Project	Number of hours
Proj 1	Identification of the method used in the chosen company.	2
Proj 2	Description of theoretical assumptions of the identified method.	2
Proj 3	Description of the identified management method in business practice - goals of the organization.	2
Proj 4	Description of the identified management method in business practice - the structure of the organization.	2
Proj 5	Description of the identified management method in business practice - the social subsystem of the organization.	2
Proj 6	Description of the identified management method in business practice - technology in the organization.	2
Proj 7	Improvement proposals	2
Proj 8	Presentation	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Scientific management	2
Sem 2	Administrative approach, human relations approach	2
Sem 3	System approach	2
Sem 4	A situational approach	2
Sem 5	New Wave in management	2
Sem 6	Lean management	2
Sem 7	Process approach	2
Sem 8	Time based management	1
	Total hours	15

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-analysis and evaluation of selected aspects of the organization
- N5. Self-study: classes preparation and final assessment preparation
- N6. Project prepared by students

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P		Assessment of developed solutions regarding the analysis and evaluation of the chosen organization
Р	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_W05	Examination

### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Błaszczyk W., Metody organizacji i zarządzania, Wydawnictwo Naukowe PWN, Warszawa 2005
- [2] Brzozowski M., Kopczyński T., Metody zarządzania, Wydawnictwo UE w Poznaniu, Poznań 2009.
- [3] Czekaj J., Metody organizacji i zarządzania, Wydawnictwo AE w Krakowie, Kraków 2007.
- [4] Hopej M., Struktury organizacyjne, Ossolineum, Wrocław Warszawa Kraków 2004.
- [5] Zimniewicz K., Współczesne koncepcje i metody zarządzania, PWE, Warszawa 1999.

### **SECONDARY LITERATURE:**

- [1] Koźmiński A.K., Piotrowski W. (red.), Zarządzanie. Teoria i praktyka, Wydawnictwo Naukowe PWN, Warszawa 2006
- [2] Brilman J., Nowoczesne koncepcje i metody zarządzania, PWE, Warszawa 2002.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, robert.kaminski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name in Polish Kontroling strategiczny Name in English Strategic controlling

Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0051

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes	_	1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Corporate finance
- 2. Finance management
- 3. Accounting

### **SUBJECT OBJECTIVES**

- C1. Acquainting students with idea of strategic controlling, its role in enterprise management and its relation to operational controlling.
- C2. Perfection of skills of preparing and verifying strategic plans.
- C3. Developing practical skills of applying various tools used for monitoring strategic goals of enterprise, such as for example strategic scoreboard and indicators of value creation.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 student knows the ideas of operational and strategic controlling and reasons for adopting a growth of value as a main strategic goal
- PEU\_W02 student knows the principles of creating long-term financial projections, that are internally coherent and conformable to accounting principles
- PEU\_W03 knows basic measures of risk applied for evaluation of financial projections and understands relativity of risk measurement and its conditions
- PEU\_W04 knows indicators of strategic goal accomplishment (value growth), such as EVA, CFROI, SVA, border margin

- PEU\_W05 knows principles of assessing of parameters used in value creation indicators
- PEU\_W06 knows basic tools of intellectual capital measuring and reporting, including strategic scoreboard

relating to skills:

- PEU\_U01 is able to propose a set of tools for monitoring degree of strategic goals achievement
- PEU\_U02 is able to make adequate corrections adjusting accounting information for needs of value creation indicator assessment
- PEU\_U03 is able to create a financial strategic plan and evaluate it in the context of gains and risk

relating to social competences:

- PEU\_K01- understands a need for constant developing her/his knowledge and skills in the area of applying methods and tools of strategic control
- PEU02 is prepared to take part in projects that change methods of enterprise resources management in the context of value maximization
- PEU\_K03 is able to identify and supplement lack of knowledge that allows for problem solution, in the area of access to strategic financial information

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	The essence of strategic controlling and its relation to operational controlling	1
Lec 2	Enterprise value growth as the most important strategic goal	1
Lec 3	Tools used for monitoring the process of value creation (EVA, CFROI, SVA, border margin)	4
Lec 4	New investments evaluation, from the point of view of advantages and risks they bring to the enterprise	1
Lec 5	Preparing and verification of strategic plans	2
Lec 6	Measuring and reporting intellectual capital and strategies of its management	4
Lec 7	Balanced scorecard (BSC)	2
	Total hours	15
	Classes	Number of hours
Cl 1	Risk evaluation of various scenarios of enterprise development	4
C1 2	Creation of strategic plans	4
C1 3	Verifying strategic plans from the growth of value point of view	3
Cl 4	Constructing tools for strategic goals monitoring (EVA, CFROI, SVA, BSC)	4
	Total hours	15

### TEACHING TOOLS USED

- N1. Lecture with multimedia presentations and discussions
- N2. Workshops with spreadsheets application
- N3. Student own work preparing for exercises and lecture passing

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
	PEK_W01, PEK_W02, PEK_W03, PEK_W04, PEK_W05	Intermediary colloquium and student project
	PEK_W01, PEK_W02, PEK_W03, PEK_W04, PEK_W05	End semester final colloquium

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Dudycz T., Analiza finansowa jako narzędzie zarządzania finansami przedsiębiorstwa, Wydawnictwo Indygo Zahir Media, Wrocław 2011
- [2] Dudycz T., Zarządzanie wartością przedsiębiorstwa, PWE, Warszawa 2005.
- [3] Kaplan R.S., Norton D.P, Strategiczna karta wyników, PWN, Warszawa 2002.
- [4] Controlling funkcyjny w przedsiębiorstwie, pod red. M. Sierpińskiej, Oficyna Ekonomiczna, Kraków 2004.

### SECONDARY LITERATURE:

- [1] Rampersad H.K., Kompleksowa Karta Wyników, Placet, Warszawa 2004,
- [2] Rogowski W., Michalczewski A., Zarządzanie ryzykiem w przedsięwzięciach inwestycyjnych, Oficyna Ekonomiczna, Kraków 2005

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, tadeusz.dudycz@pwr.wroc.pl

#### **SUBJECT CARD**

Name in Polish: Metodyka i narzędzia analizy finansowej Name in English: Methods and tools for financial analysis

Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Level and form of studies: Second level

Kind of subject: obligatory Subject code: W08ZZZ-SM0052

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Exam		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		1,4		

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of corporate finance and corporate governance.
- 2. Ability to use Microsoft Office.

#### SUBJECT OBJECTIVES

C1 The aim of the course is to acquire basic knowledge about financial analysis methods and tools

C2 The student should possess the ability to financial reports with use of computer aided methods and tools

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 He/she can distinguish the main approaches to financial analysis.

PEU\_W02 He/she can determine the knowledge necessary for proper financial analysis

• • •

relating to skills:

PEU\_U01 He/she can perform financial analysis. After completing the course the student should be able to analyze basic financial statements derive analytical conclusions, know the basic tools useful in financial analysis.

PEU\_U02 He/she can take advantage of financial reporting as a source of knowledge

. . .

relating to social competences:

PEU\_K01 He/she is aware of the complexity of socio-economic systems and a willingness to multilateral overview of the impact of business decisions and management

PEU\_K02 He/she is focused on independent and critical search and selection methods, techniques and tools to support organizational knowledge management

PEU\_K03 He/she shows openness to others people's mental models, and is determined to improve systemic thinking skills

	PROGRAMME CONTENT		
	Lectures	Number of hours	
Lec 1	Introduction. The scope and structure of the lecture	1	
Lec 2	Financial statements as source of analytical information	1	
Lec 3	International financial statements	1	
Lec 4	The classification of techniques and methods		
	applied in financial analysis	1	
Lec 5	Advanced methods for financial analysis	1	
Lec 6	Computer aided systems for financial analysis	1	
Lec 7	Evaluation of liquidity	1	
Lec 8	Techniques and methods for profitability analysis	1	
Lec 9	Techniques and methods for assets and equity analysis.	1	
Lec 10	Techniques and methods for analysis of financing sources	1	
Lec 11	Techniques and methods for analysis of firm's investments	1	

	Summing up	
Total		10

	Laboratory	Number of hours
La1	The aim and the structure of the laboratory. Selection of a firm	2
La2	Liquidity analysis in a static and dynamic form	4
La3	Profitability analysis in a relational and unrelational form	4
La4	Analysis of assets and equity position. Analysis of the firm's market position.	6
La5	Students presentations	4
	Total	20

# TEACHING TOOLS USED

- N1. Laptop connected to the video projector N2. MS Office 2010 software N3. Practice and computer utilities problem exercises
- N4. Preparation of reports
- N5. Multimedia lecture

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating educational effect achievement
F1		Presentation of the revised set of analysis variables
F2	PEU_W01, PEU_W02, PEU_U01, PEU_U02,	Presentation of the selected stage of economic analysis company

	PEU_K02
F3	PEU_W01, PEU_W02, Written term paper PEU_U01, PEU_U02
F4	PEU_W01, PEU_W02, Evaluation of progress during the semester PEU_U01, PEU_U02, PEU_K01, PEU_K02, PEU_K03
P=F1*0,1+F2*0	+F3*0,5+F4*0,1

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Radosiński E., Wprowadzenie do sprawozdawczości, analizy i informatyki finansowej, PWN Warszawa 2011
- [2] Radosiński E., Systemy informatyczne w dynamicznej analizie decyzyjnej, Wydawnictwo PWN, 2001
- [3] Sierpińska M. Jachna T., Ocena przedsiębiorstwa według standardów światowych, Wydawnictwo Naukowe PWN, 2005
- [4] Nowak E., Analiza sprawozdań finansowych, PWE Warszawa 2005

[2]

[3]

[/]

#### SECONDARY LITERATURE:

- [1] Bednarski L., Analiza finansowa w przedsiębiorstwie, PWE Warszawa 2006
- [2] Bednarski L. i in., Analiza ekonomiczna przedsiębiorstwa, Wyd. Akademii Ekonomicznej we Wrocławiu, 2003.
- [3] Brigham E.F., Houston J.F., Podstawy zarządzania finansami, PWE Warszawa, 2005 r.
- [4] Helfert E. A., Techniki analizy finansowej, PWE Warszawa 2004.
- [5] Machała R., Praktyczne zarządzanie finansami firmy, Wydawnictwo Naukowe PWN, Warszawa 2004.
- [6] Flanczewski S., Excel z elementami VBA w firmie. Wydawnictwo Helion, Gliwice 2008

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, tadeusz.dudycz@pwr.wroc.pl

# MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT Methods and tools for financial analysis AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Management AND SPECIALIZATION Financial engineering

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
PEU_W01	K2_ZARZ_W06, K2_ZARZ_W11,	C1	Wy1 – Wy12 La 1 – La 3	N1, N2, N3
PEU_W02	K2_ZARZ_W05, K2_ZARZ_W06, K2_ZARZ_W12, S2_PIP_W04,	C1	Wy7 – Wy12 La 1 – La 5	N1, N2, N3
PEU_U01	K2_ZARZ_W08, K2_ZARZ_W14, K2_ZARZ_U04	C2	Wy1 – Wy12 La 1 – La 3	N1, N2, N3, N4, N5, N6
PEU_U02	K2_ZARZ_U04,	C2	Wy7 – Wy12 La 1 – La 5	N5, N6
PEU_K01	K2_ZARZ_K05, K2_ZARZ_K06	C1, C3	Wy1 - Wy12 La 1 - La 5	N1, N2, N3, N4, N5, N6
PEU_K02	K2_ZARZ_K04, K2_ZARZ_K05	C1, C2	Wy7 – Wy12 La 1 – La 5	N1, N2, N3, N4, N5, N6
PEU_K03	K2_ZARZ_K02, K2_ZARZ_K04	C3	Wy7 – Wy12 La 1 – La 5	N2, N3, N4, N5, N6,
PEU_W01	K2_ZARZ_W06, K2_ZARZ_W11,	C1	Wy1 – Wy12	N1, N2, N3

			La 1 – La 3	
PEU_W02	K2_ZARZ_W05, K2_ZARZ_W06, K2_ZARZ_W12, S2_PIP_W04,	C1	Wy7 – Wy12 La 1 – La 5	N1, N2, N3
PEU_U01	K2_ZARZ_W08, K2_ZARZ_W14, K2_ZARZ_U04	C2	Wy1 - Wy12 La 1 - La 3	N1, N2, N3, N4, N5, N6
PEU_U02	K2_ZARZ_U04,	C2	Wy7 - Wy12 La 1 - La 5	N5, N6
PEU_K01	K2_ZARZ_K05, K2_ZARZ_K06	C1, C3	Wy1 – Wy12 La 1 – La 5	N1, N2, N3, N4, N5, N6

<sup>\*\* -</sup> enter symbols for main-field-of-study/specialization educational effects
\*\*\* - from table above

## **SUBJECT CARD**

Name of subject in Polish: Międzynarodowe transakcje ekonomiczne Name of subject in English: International Economic Transaction

Main field of study (if applicable): MANAGEMENT

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0091

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has the basic knowledge about micro and macro economy
- 2. Student has the basic knowledge about functioning of the market and market mechanism.
- 3. Student is able to prepare to the lectures.

## **SUBJECT OBJECTIVES**

C1: get knowledge of functioning of the international markets, with emphasis on circumstances and regulations of customs tariff policies

C2: get basic knowledge of foreign trade, customs tariff policies, and trade formulas (INCOTERMS 2010, RAFTD), customs procedures.

C3: get knowledge of documents used in the foreign trade.

C4: Get and develop social skills which enable successful team work

	SUBJECT LEARNING OUTCOMES				
	Related to knowledge:				
PEU_W01	Student has knowledge of functioning of international markets.				
PEU_W02	Student knows the Basic legal regulations of customs policies.				
PEU_W03	Student knows the Basic procedures of making the economic transaction.				
PEU_W04	Student understands how to prepare the economic transaction. He can prepare the project of the contract, he know the contract elements, he know the basic contract cases and trade formulas INCOTERMS 2010				
PEU_W05	Student has the basic knowledge of the customs tariff Policies.				
	Related to skills:				
PEU_U01	Student can prepare himself to make an economic trans action. He can evaluate the legal circumstances and rules and choose the accurate kind of trade formulas to the legal and economic circumstances.				
PEU_U02	He can use the trade formulas in contacts with foreign partners.				
	Related to social competences:				
PEU_K01	Student has social competences to work in team, to solve the problems and elaborate the case studies.				
PEU_K02	Student can seek for the information and analyze it in order to solve the problem or given task.				

	PROGRAMME CONTENT		
	Lectures	Number of hours	
Lec 1	Introduction	1	
Lec 2	Foreign trade and its role in the economy:		
	<ul> <li>Theories of foreign trade</li> <li>Meaning of foreign trade for the enterprises and consumer</li> <li>Documents User in the foreign trade</li> </ul>	2	
Lec 3	<ul> <li>Customs tariff policies:</li> <li>Legal regulations (domestic and in EU)</li> <li>Meaning and tasks of the customs tariff policies</li> </ul>	2	
Lec 4	Customs tariff policies:  • Description of the documents in the foreign trade on the example of JDA SAD	2	
Lec 5	Requirments in foreign trade in EU in the other countries:		
Lec 6	<ul> <li>Internal EU market – case studies</li> <li>INTRASTAT</li> <li>International economic transactions – case studies</li> <li>Leasing and international franchising</li> </ul>	4	
Lec 7	International trading formulas:		
	<ul> <li>Kinds and examples of trading formulas</li> <li>Trading formulas: INCOTERMS 2010, RAFTD</li> </ul>	2	
Lec 8	Final test	2	

To	otal hours	15
	Classes	Number of hours
Cw1	Introduction	1
Cw2	Prepearing and realization of the economic transaction	2
Cw3	Custom tariff documents	2
Cw4	Leasing, franchising, temporary clearance	2
Cw5 & 6	INCOTERMS 2010	4
Cw7	INTRASTAT	2
Cw8	Final test	2
	Total hours	15

## TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. Analysis of selected problems, problematic discussions
- N3. consultations
- N4. Stundet's work preparing oral presentation (using powerpoint) and writing form of the paper N5. Student's work solving problems

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
	Lect	ture:
F1=P	PEU_W01 ÷ PEU_W05	Final test
	Clas	sses:
F1	PEU_K02, PEU_K03	Oral presentation and writing form of the paper
F2	PEU_K01 ÷ PEU_K03 PEU_U01, PEU_U02	Team work
F3	PEU_U01, PEU_U02 PEU_W02, PEU_W04, PEU_W05	Final test
P= $\alpha_1 F1 + \alpha_2 F2 + \alpha_3 F3$ , gdzie $\alpha_1$ =0,3, $\alpha_2$ =0,2, $\alpha_3$ =0,5 $\Sigma \alpha = 1$		

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Bernaś B. (red.) Międzynarodowe transakcje ekonomiczne, DIFIN 2002.
- [2] Treder H. (red.), PodstaLec handlu zagranicznego, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2005.
- [3] Białecki K., Operacje handlu zagranicznego, PWE, Warszawa 2002.
- [4] Misala J., Międzynarodowa konkurencyjność gospodarki narodowej, PWE, Warszawa 2011.
- [5] Breza M., Międzynarodowe transakcje gospodarcze, Lecd. WSCIL 2009.
- [6] Rymarczyk J., Handel zagraniczny- organizacja i technika, PWE, Warszawa 2005.
- [7] Stępień B. (red.), Handel zagraniczny. Poradnik dla praktyków, PWE, Warszawa 2007.

#### SECONDARY LITERATURE:

- [1] Gostomski E., Handel wiązany w gospodarce światowej, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2004.
- [2] Baranowska-Prokop E., Transakcje wiązane w handlu miedzynarodo Lecm, Difin, Warszawa 2003.
- [3] Białecki K. P., Kaczmarek T. T., Eksportowa działalność małych i średnich przedsiębiorstw. Od przygotowania do realizacji transakcji eksportowej, Difin, Warszawa 2008.
- [4] Białecki K. P., Januszkiewicz W., Oręziak L., Leksykon handlu zagranicznego, PWE, Warszawa 2007.
- [5] Blajer A., Międzynarodowe reguły handlowe. Zasady i praktyka stosowania. Incoterms 2000, ODDK, Gdańsk 2000.
- [6] Kaczmarek T. T., Nietypowe transakcje w praktyce handlu międzynarodowego. Barter, buy-back, offset, Difin, Warszawa 2006.
- [7] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Lecdawnicza Branta, Bydgoszcz Warszawa 2005.
- [8] Kaczmarek T. T., Wzory dokumentów w transakcjach w handlu zagranicznego z komentarzem, ODDK, Gdańsk 2000.
- [9] Kozioł W. (red.), *Handel zagraniczny. Operacje, rozliczenia, regulacje*, Lecdawnictwo Naukowe Lecdziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2004.
- [10] Rynarzewski T., Strategiczna polityka handlu międzynarodowego, PWE, Warszawa 2007.
- [11] Stępień B. (red.), Transakcje handlu zagranicznego, PWE, Warszawa 2004.
- [12] Jeliński B., Polityka współpracy gospodarczej z zagranica, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2009,
- [13] Bednarczyk T. H., Instrumenty wspierania eksportu. Kredyty i ubezpieczenia, Lecd. Naukowe PWN,
- [14] Warszawa 2000,
- [15] Bednarz J., Gostomski E., *Działalność małych i średnich przedsiębiorstw na rynkach zagranicznych*, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2009

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr hab. inż. Małgorzata Rutkowska, malgorzata.rutkowska@pwr.edu.pl

\*delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Modelowanie symulacyjne Name of subject in English: Simulation modeling Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0031

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	60		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	2		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Modeling in Excel spreadsheet
- 2. Basics of probability and statistics

## SUBJECT OBJECTIVES

- C1 Acquaintance with basic concepts of stochastic simulation modeling
- C2 Ability to use simulation models to describe the present state and to predict the future performance of the organization.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 The student has the knowledge about the steps of simulation models' building.

PEU\_W02 The student has the specialist knowledge in the field of quantitative and qualitative modeling and forecasting of the states and the processes in the organization.

relating to skills:

PEU\_U01 The student can build and use simulation models to solve the complex managerial problems.

relating to social competences:

PEU\_K01 The student understands the essence of ethics in business

PEU K02 The student can interact and work in collaborative forms

#### **PROGRAM CONTENT** Number of Lectures hours Class rules. Simulation and forecasting: basic definitions Lec 1 Simulation modeling cycle. Simulation and forecasting 2 Lec 2 Discrete event simulation in Arena. Part 1 Lec 3 Discrete event simulation in Arena. Part 2 2 Lec 4 Input data modeling. Random numbers Lec 5 Experiment planning Lec 6 Verification and validation Lec. 7 Lec 8 Final test **15** Total hours Number of Laboratory hours Lab 1 Class rules Lab 2 Discrete event model - introduction Lab 3 Discrete event model – part 1 Discrete event model – part 2 Lab 4 2 Lab 5 Discrete event model – part 3 Lab 6 Introduction to mini project Lab 7 Project defense 2 Lab 8 Grading Total hours 15

## TEACHING TOOLS USED

N1. Multimedia presentation

N2. Software packages (Arena, Extend, Simio, AnyLogic)

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_K01	Assignment no 1
F2	PEU_U01 PEU_K01	Assignment no 2
F3	PEU_U01 PEU_K01	Assignment no 3
F3	PEU_U01 PEU_K01	Assignment no 4
F3	PEU_K02	Mini project

PEU_K01	
P Final test PEK W01 PED W02	

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] **Mielczarek B.,** *Modelowanie symulacyjne w zarządzaniu. Symulacja dyskre*tna. Oficyna Wydawnicza PWr Wrocław 2009
- [2] Kelton W.D., Sadowski R.P., Sturrock D.T., Simulation with Arena, McGraw Hill Higher Education
- [3] Rossetti M.D., Simulation modelling and Arena, John Wiley and Sons, Inc., 2010

## SECONDARY LITERATURE:

- [1] Winston L.W., Microsoft Excel 2019. Analiza i modelowanie danych biznesowych, APN Promise, Warszawa 2019
- [2] Gajda J.B., Prognozowanie i symulacja a decyzje gospodarcze, Wyd. C.H.Beck, Warszawa 2001
- [3] Cieślak M., (red.) *Prognozowanie gospodarcze. Metody i zastosowania*, Wydawnictwo Naukowe PWN, Warszawa 2002.
- [4] Maciąg A., Pietroń R., Kukla S. Prognozowanie i symulacja w przedsiębiorstwie, PWE 2013

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Bożena Mielczarek bozena.mielczarek@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name in Polish: Ocena projektów inwestycyjnych (Project Finance) Name in English: The appraisal of investment projects (Project Finance)

Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0053

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes	_	1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge and skills concerning financial accounting
- 2. Knowledge and skills concerning corporate finance and financial management

## **SUBJECT OBJECTIVES**

C1 Getting students familiar with methods of evaluation of large and high volume cost projects finance, applied usually to infrastructure investment projects

C2 Developing practical skills of preparing and evaluation of project finance proposals.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – students know characteristics of large projects, including infrastructure projects

PEU\_W02 – students know methods of risk evaluation and risk protection in case of large projects

relating to skills:

PEU\_U01 – students are able to evaluate large investment projects

PEU U02 – students are able to assess credit risk,

PEU\_U03 – students are able to plan financing of large investment projects

relating to social competences:

PEU\_K01 – students understand the need for permanent upgrading their knowledge and skills in the area of evaluation of investment projects

PEU\_K02 – students are prepared to participate in the process of evaluation and selection of investment projects

	PROGRAMME CONTENT		
	Lectures	Number of hours	
Lec 1	Introduction to theory and practice of investment projects, of the project finance type, evaluation	2	
Lec 2	Methods of evaluation of investment projects	4	
Lec 3	Project valuation and analysis of project cash flows	4	
Lec 4	Project financing	2	
Lec 5	Legal aspects of project finance investments	1	
Lec 6	Credit risk in project finance	2	
	Total hours	15	
	Classes	Number of hours	
Cl 1	Formulating assumptions and rules for the financial model	3	
C1 2	Building a financial model	4	
C1 3	Sensitivity analysis	2	
Cl 4	Measuring of credit risk in project finance (from the creditor point of view)	4	
Cl 5	Final assessment and crediting a subject with grade	2	
	Total hours	15	

## TEACHING TOOLS USED

- N1. Lecture with application of multimedia presentations and discussions
- N2. Computational exercises solving tasks and discussing solutions
- N3. Students own work preparing for classes and colloquium.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
F	PEU_W01, PEU_W02	Crediting paper
С	PEU_W01, PEU_W02	Colloquium

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] S. Gatti, *Project Finance in Theory and Practice*, Elsevier, 2008.
- [2] E. Yescombe, *Project finance*, Oficyna Ekonomiczna, Kraków 2007.
- [3] P. Kwiatkowski, Analiza ryzyka kredytowego towarzyszącego finansowaniu przedsięwzięć inwestycyjnych na zasadzie project finance, NBP, Warszawa 1998.

## SECONDARY LITERATURE:

- [1] W. Rogowski, A. Michalczewski, *Zarządzanie ryzykiem w przedsięwzięciach inwestycyjnych*, Oficyna Ekonomiczna, Kraków 2005.
- [2] A. Wojewnik-Filipkowska, *Project Finance w inwestycjach infrastrukturalnych*, CeDeWu, Warszawa 2008.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>tadeusz.dudycz@pwr.wroc.pl</u>

#### SUBJECT CARD

Name of subject in Polish: Prawno-ekonomiczne uwarunkowania działalności

gospodarczej na rynku UE

Name of subject in English: Legal and Economic conditions for business in the market of

the European Union

Main field of study (if applicable): MANAGEMENT

**Specialization (if applicable):** 

Profile: academic

Level and form of studies: 2nd level, full-time

**Kind of subject: optional** 

Subject code: W08ZZZ-SM0092

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about European integration

## SUBJECT OBJECTIVES

- C1. Knowledge and understanding of conditions for economic actors in the EU market, under the logic and mechanisms of integration and regulation defining the operation of the single European market.
- C2. To show the impact of the elements of the regulatory environment and economic, resulting from the integration process, the operation of companies and their strategic choices.
- C3. Education skills identification and analysis of conditions resulting from the integration processes in the dimension of content and controls for making business in the EU market and the relevant sources of information in this regard.

## SUBJECT LEARNING OUTCOMES

The scope of knowledge:

- PEU W01 has ordered knowledge of the legal and economic conditions for making business in the EU market.
- PEU W02 understand the strategic context of the enterprise in a specific economic mechanism of integration and adopted in EU regulations.

The range of skills:

- PEU U01 Able to identify, analyze, and use the right tools and the economic and legal regulations to solve the problems of entry and operation of companies in the EU market.
- PEU U02 Can choose the appropriate source of information on the legal and economic regulation defining the functioning of the EU market, including forms of institutional and financial support to undertake business activities in the market.

The scope of social competence:

PEU K01 - is aware of the opportunities and risks of integration processes. It is prepared to initiate changes in the company based on its knowledge of the matter.

	PROGRAMME CONTENT		
	Lectures	Number of hours	
Lec1	Economic conditions of the operation of enterprises in the context of European integration	2	
Lec2	Implementation of the Single European Market (SEM) as part of the business environment for economic actors	2	
Lec3	The impact of selected EU sectoral policies on the behavior of the common market (JRE support policy and politics Curtain)	2	
Lec4	Institutional and financial tools to support of business on the European market.	2	
Lec5	European organizational and legal forms of business in the EU direction	2	
Lec6	Regulations and competition policy in the EU to companies.	2	
Lec7	Protection of intellectual property.	2	
Lec8	Test	1	
	Total hours	15	

	Classes	Number of
		hours
Cl1	Strategic analysis of enterprise's environment on the EU market.	2
C12	Adjustment processes of enterprises to the mechanisms and regulation of the European internal market	2
C13	The choice of forms of institutional and financial support of the company's activities in the EU market (practical examples)	2
Cl4	Determine the legal form of business in the European market	2
Cl5	The influence the competition policy business in the EU market.	2
Cl6	Innovation and entrepreneurship in the existing regulations and economic conditions.	2
Cl7	The use regulations of the European patent and trade mark (for selected examples).	2
Cl8	Test	1
	Total hours	15

## TEACHING TOOLS USED

## Lecture

- N1. Information lecture
- N2. Multimedia presentation
- N3. Problem lecture

**Exercises** 

- N1. practical exercises
- N2. discussion
- N3. The paper a multimedia presentation

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F	PEU W02 PEU U01, PEU U02 PEU K01	Participation in the discussion Practical exercises, lecture Participation in the discussion
Р	PEU W01 PEU W02 PEU U01	Test

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] A. Cieśliński (red), *Wspólnotowe prawo gospodarcze*, 2.wydanie, Wyd. C. H. Beck, Warszawa 2007.
- [2] K. Gawlikowska, A. Zielińska-Głębocka, *Integracja europejska. Od jednolitego rynku do unii walutowej. Podręcznik ekonomii europejskiej*, Wyd. C. H. Beck, Warszawa 2004
- [3] A. Ragut, *Małe i średnie przedsiębiorstwa w integracji ekonomicznej*, Wyd. Uniwersytet Łódzki, Łódź 2002.
- [4] K. Wach, Jak założyć firmę w Unii Europejskiej, Wyd. Wolters Kluwer, Kraków 2006.

## **SECONDARY LITERATURE:**

- [1] M. Komor, Euromarketing, Strategie marketingowe przedsiębiorstw na eurorynku, Wyd. PWN, Warszawa 2000.
- [2] E. Kawecka-Wyrzykowska (red.), *Polityka gospodarcza Unii Europejskiej*, Wyd. SGH, Warszawa 2009.
- [3] M. Bednarczyk, *Male i średnie przedsiębiorstwa w Polsce a integracja europejska*, Wyd. AE w Krakowie, Kraków 2004.
- [4] E. Latoszek (red), *Finansowanie MSP w Polsce ze środków finansowych UE jako czynnik wpływający na konkurencyjność przedsiębiorstw*, Wyd. SGH, Warszawa 2008.

Aldona Dereń aldona.deren@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Psychologia decyzji i ryzyka Name of subject in English: Psychology of decision and risk

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0102

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

#### SUBJECT OBJECTIVES

- C1 Acquisition of knowledge about the psychological mechanisms involved in making decision
- C2 Knowing of situational and personality determinants of decision-making processes.
- C3. Acquiring of knowledge in the scope of psychological approach to risk in decision-
- C4 acquisition of skills identification of cognitive errors and distortions in decision-making and risk perception
- C5 Mastering the skills of identifying manifestations of bounded rationality in decision-making and risk perception making
- C6. Understanding the role of psychological factors and individual differences in decision-making and financial risk

## SUBJECT LEARNING OUTCOMES

## relating to knowledge

- PEU\_W01 student knows the nature and operation of psychological mechanisms of decision-making.
- PEU\_W02 he has knowledge of situational and personality determinants decision-making processes.
- PEU\_W03 he has knowledge of the psychological approach to risk in decision-making relating to skills:
- PEU\_U01 He has ability to identify manifestations of bounded rationality in decision-making

and risk perception

PEU\_U02 He can be identified cognitive biases and distortions in the process of risk perception and decision-making

## relating to social competence:

PEU\_K01 he can determine the role of psychological factors and individual differences in risk and decision-making

## PROGRAM CONTENT

TROGRAM CONTENT		
	Lectures	Number of hours
Lec1	Behavioral decision theory. Normative and descriptive models of decision-making and risk	2
Lec2	Model of bounded rationality in decision-making	2
Lec3	General dimensions of the decision. Dimensions decisions in the organization	2
Lec4	Cycles of information processing in the decision making process.  Psychological decision rules	2
Lec5	The role of heuristic in decision making (sources of biases and inclination in decision-making).	2
Lec6	The prospect theory in decision making processes	2
Lec7	Psychological aspects and determinant of risk assessment and decision-making	2
Lec8	The role of emotions in financial risk-taking	1
	Total hours	15

	Seminar	Number of hours
Sem1	Decision-making models - phases. Rational and automatic processes in decision making.	2
Sem2	Cognitive processes in decision-making. Estimating of the subjective probability in decision-making	2
Sem3	Diagnostic heuristics in decision processes Types of cognitive biases and inclination.	2
Sem4	The consequences of prospect theory - biases in risk assessment - The effect of predisposition and the effect of sunk costs	2
Sem5	Rules of integrating alternatives in decision-making	2
Sem6	Quantitative and qualitative dimensions of perceived risk in decision-making	2
Sem7	Individual differences in decision-making and risk perception	2
Sem8	Sources of biases in financial risk estimation	1
	Total hours	15

## **TEACHING TOOLS USED**

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)
- N5 Own work

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester		
end)		
P	PEU_W01 - PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P	PEU_W01 – PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P=2	·	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Nosal C.S. (2001). Psychologia myślenia i działania menedżera., Wrocław, AKADE
- [2] Kozielecki J. (1997). Psychologiczna teoria decyzji. Warszawa: PWN
- [3] Tyszka, T., Zaleśkiewicz, T. (2001). Racjonalność decyzji. Pewność i ryzyko. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- [4] Tyszka, T. (1999). Pułapki oceniania i podejmowania decyzji. Gdańsk: GWP.
- [5] Sokołowska, J. (2005). Psychologia decyzji ryzykownych. Ocena prawdopodobieństwa i modele wyboru w sytuacji ryzykownej. Podręcznik akademicki. Warszawa, Wydawnictwo Szkoły Wyższej Psychologii Społecznej "Academica".
- [6] Goszczyńska M., Studenski R. (red.) (2006). Psychologia zachowań ryzykownych koncepcje badania praktyka. Wydawnictwo: ŻAK

## SECONDARY LITERATURE:

- [1] Simon H., Podejmowanie decyzji kierowniczych, PWE, Warszawa 1982.
- [2] Tyszka T., Analiza decyzyjna i psychologia decyzji, PWN, Warszawa 1986.
- [3] Zaleśkiewicz, T. (2003). Psychologia inwestora giełdowego. Wprowadzenie do behawioralnych finansów. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- [4] Zaleśkiewicz, T. (2005). Przyjemność czy konieczność. Psychologia spostrzegania i podejmowania ryzyka. Gdańsk: Gdańskie Wydawnictwo Psychologiczne
- [5] Sokołowska, J. (2000). Ryzyko: Wyzwanie czy zagrożenie. Psychologiczne modele oceny i akceptacji ryzyka. Warszawa: Wydawnictwo Instytutu Psychologii PAN.
- [6] Lindsay P.H., Norman D.A. (1984). Procesy przetwarzania informacji u człowieka, Warszawa: PWN

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## SUBJECT CARD

Name of subject in Polish: Psychologia ekonomiczna Name of subject in English: Economic psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0103

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total stude nt workload (CNPS)	30				30
Form of crediting	crediting with g				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that requi re direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>niepotrzebne skreślić

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES Psychology of management

## **SUBJECT OBJECTIVES**

- C1. Knowing the psychological mechanisms related to economic decisions
- C2. Gaining knowledge about the specifics and psychological determinants of economic behavior
- C3. Knowing the mechanisms of perception of money and its behavioral consequences
- C4. Understanding the mechanisms of perception of economic activities, economic expectations of ownership and possession, economic welfare and saving
- C5. Mastering knowledge of the psychological basis of risk perception in the economic behavior and financial decisions

## SUBJECT LEARNING OUTCOMES

## Relating to knowledge:

- PEU\_W01 student has a thorough knowledge of the mechanisms and strategies for financial decision making and economic behavior
- PEU\_W02 he understands the difference between normative and behavioral approach to economic behavior.
- PEU\_W03 he recognizes the basic psychological mechanisms that determine economic behavior, such as savings, insurance and investing in the financial markets

## Relating to skills:

- PEU\_U01 he can identify psychological determinants of economic and entrepreneurial behavior
- PEU\_U02 he can identify the source irrational economic and entrepreneurial behavior,
- PEU\_U03 he can diagnose the attitude towards money and its impact on economic behavior

## Relating to social competences:

PEU\_K01 he is aware of cognitive and emotional limitations of market behavior

PROGRAM CONTENT		
	Lectures	Number of hou
Wy1	Psychology and economics. Normative and descriptive approach to explain economic phenomena. Interest of economic psychology	2
Wy2	Bounded rationality in making financial decisions. The role of emotions in economic behavior	2
Wy3	Psychological mechanisms of perception and its regutational consequences	2
Wy4	Psychological aspects of saving. Mechanisms and motives of the insurance	2
Wy5	Psychology of investing and entrepreneurship	2
Wy6	Subjective factors of economic behavior	2
Wy7	Psychology of gambling and financial risk	2
Wy8	Economic socialization	1
	Total hours	15

	Seminar	Number of hours
Sem1	Economic behavior from the perspective of economics and psychology. The subject of interest of economic psychology.	2
Sem2	Bounded rationality in making financial decisions.	2
Sem3	The role of emotions in economic behavior	2
Sem4	Mechanisms of mental accountingo	2
Sem5	Attitudes and mechanisms of money perceptions and its regulatory implications	2
Sem6	Psychological aspects of saving Mechanisms and motives of the insurance	2
Sem7	Identification of the mechanisms of investment and entrepreneurial behaviors and subjective determinant	2
Sem8	Perception and dimensions of financial risk	1
	Total hours	15

## TEACHING TOOLS USED

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

		<u> </u>
<b>Evaluation</b> (F – forming (dur	Learning outcomes number	Way of evaluating learning outcomes a
ing semester), P - concluding (		chievement
at semester end)		
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P=2		

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Brzozowska I.M., Goszczyńska M.(2002). Psychologiczne determinanty skłonności Polaków do oszczędzania. *Czasopismo Psychologiczne*, 2, s.201 210.
- [2] Gasparski P.(1991). Oszczędzanie psychologiczna charakterystyka motywów oszczędzania. Raport z badań. "Ekonomista", 2 3, 347 353, (w teczce).
- [3] Gąsiorowska A. (2003). Kwestionariusz do pomiaru postaw wobec pieniądza Raport niepublikowany.
- [4] Tyszka T, Zaleśkiewicz T. (2004). Psychologia pieniądza. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 6, par. 6.1, 6.4, 6.5, 6.6, s. 161-165 i 177-189.
- [5] Warneryd K.E. (2004).Oszczędzanie. W: T.Tyszka (red). *Psychologia ekonomiczna*. GWWP, roz 17, par.17.1, 17.2, s.530-536, par. 17.4 i 17.5, s. 539- 563. Gasparski P. (1993). Wyznaczniki indywidualnych skłonności do bankowych form oszczędności. *Bank i Kredyt*, 24, 16-21
- [6] Zaleśkiewicz T. (2004). Percepcja działań ekonomicznych W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, s. 82-100, par. 3.2, 3.3.
- [7] Zaleśkiewicz T. (2004). Przedsiębiorczość i podejmowanie ryzyka. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 10, s. 303-331.
- [8] Zaleśkiewicz, T. (2011). Psychologia ekonomiczna. Warszawa: Wydawnictwo Naukowe PWN.
- [9] Zaleśkiewicz, T. (2002). Psychologia inwestora giełdowego. Gdańsk: GWP.

## SECONDARY LITERATURE:

- [1] Bajcar B., Gąsiorowska A. (2004) *Poznawcze i temperamentalne uwarunkowania postaw wobec pieniędzy*. W: T. Listwan (red.), *Sukces w zarządzaniu kadrami. Perspektywa globalna i lokalna*, Prace Naukowe Akademii Ekonomicznej, nr 1032, Wrocław: Wydawnictwo AE, s. 27-42.
- [2] Bloom, W. (1995) Pieniądz, serce i umysł, Warszawa: Jacek Santorski & Co Wydawnictwo
- [3] Falkowski, A., Zaleśkiewicz, T. (red.) (2012). *Psychologia poznawcza w praktyce. Ekonomia, biznes, polityka*. Warszawa: Wydawnictwo Naukowe PWN.
- [4] Friedman, M. (1994) Intrygujący pieniądz. Z historii systemów monetarnych, Łódź: Wyd Łódzkie
- [5] Gasparski P. (1992). Percepcja ryzyka związanego z decyzjami finansowymi. *Przegląd Psychologiczny*, 2, 153-159.
- [6] Gasparski P. (2000). Psychologia ekonomiczna, Czasopismo Psychologiczne, tom 6, 3-4, 205-213.
- [7] Kozak, A. (2004) *Znaczenie pieniądza*, Lublin: Norbertinum
- [8] Tyszka T. (1997). Psychologia zachowań ekonomicznych. W-wa: PWN, r.8, s.160-178. r.1, s.15-31.
- [9] Wasowicz-Kiryło, G. (2008). Psychologia finansowa. Warszawa: Difin
- [10] Zaleśkiewicz, T. (2010). Psychologia ekonomiczna jako przykład zastosowania nauki w praktyce. W: M. Duczmal, J. Żurawska (red.), *Przedsiębiorczość akademicka – nauka i gospodarka* (s. 162 – 170). Opole: Wydawnictwo Instytut Śląski

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Psychologia procesów poznawczych

Name of subject in English: Cognitive psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0104

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge in psychology

## **SUBJECT OBJECTIVES**

- C1 To provide knowledge of cognitive processes described from a psychological perspective
- C2 To make students aware of the extent to which cognitive processes are responsible for individual and group behaviors of man
- C3 Encourage group work and active discussion

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Demonstrate in-depth knowledge of the relationship between cognitive processes and behaviors such as decision making, problem solving, and proper assessment of situations, including social ones

PEU\_W02 Identify basic cognitive processes and is aware of their limitations

relating to skills:

PEU\_U01 Is able to formulate research problems as well as analyze and interpret research results

PEU\_U02 Is able to present research results and make their critical analysis

In the field of social competences:

PEU\_K01 Is able to work in a group, is ready to work in a group and manage group work

PEU\_K02 Demonstrate courage in communicating and defending one's views

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Mind and cognition. Preliminary issues	
Lec 2	Essence and form of mental representations	
Lec 3	Attention and awareness	
Lec 4	Perception	
Lec 5	Memory and memory activities	
Lec 6	Thinking and reasoning	
Lec 7	Solving problems, issuing courts, making decisions	
Lec 8	Course summary	
	Total hours	
	Seminar	Number of hours
Sem 1	Organizational matters	1
Sem 2	Concepts and schema. Positions in disputes over the nature of concepts.	2
Sem 3	Biology and human behavior	2
Sem 4	Perception and awareness	2
Sem 5	Learning and conditioning	2
Sem 6	Intelligence, cognition and memory	2
Sem 7	Problem solving processess	2
Sem 8	Colloquium and summary	2
	Total hours	15
	TEACHING TOOLS USED	

## N1. Lecture

- N2. Multimedia presentations of the lecturer
- N3. Multimedia presentations of students
- N4. Discussion

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

concluding (at semester end)	U	Way of evaluating learning outcomes achievement
F1 Multimedia presentations by students		Project evaluation; oral feedback

F2 Evaluation of presentations given by colleagues	Oral feedback
C Test	

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Nęcka, E., Orzechowski, J., Szymura, B. (2006) *Psychologia poznawcza* Warszawa: ACADEMICA Wydawnictwo SWPS & Wydawnictwo Naukowe PWN
- [2] Hock, R. R. (2003) 40 prac badawczych, które zmieniły oblicze psychologii Gdańsk: Gdańskie Wydawnictwo Psychologiczne

## SECONDARY LITERATURE:

- [1] Kalat, J. (2007) *Biologiczne podstawy psychologii* Warszawa: Wydawnictwo Naukowe PWN
- [2] Pinker, S. (2002) *Jak działa umysł* Warszawa: KiW

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Psychologia twórczości i przedsiębiorczości Name of subject in English: Creativity and entrepreneurship psychology

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0114

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7				0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

. Basic knowledge of psychological functioning mechanisms of human

## **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about entrepreneurship types and theories in this field of knowledge
- C2. Awareness of creative thinking stimulators and blockades.
- C3. Getting acquainted with promoting entrepreneurship in the organization rules
- C4. Acquire skills of creative generation of ideas
- C5. Trained the skills of taking different perspectives for analyzing problems

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – Student has extensive knowledge on creative thinking and entrepreneurial activities. Identifies the factors promoting and blocking entrepreneurial behavior both at an individual and group level

relating to skills:

PEU\_U01 – He can analyze the causes and dynamics of entrepreneurial phenomena in the organization, the context of their internal and external conditions. He can identify, analyze and evaluate problems with the promotion and conducting

entrepreneurial activities in the organization

relating to social competences:

- PEU\_K01 Student is prepared to initiate unusual, innovative solutions in organization. He can anticipate internal and external to the organization effects of those innovations. He can think in an entrepreneurial way
- PEU\_K02 Student can interact and work effectively in teamwork forms
- PEU\_K03 Student shows a willingness to identify, critically analyze and solve problems related to innovative activities occurring in the workplace

#### PROGRAM CONTENT Number of Lectures hours The concept of entrepreneurship - theoretical basis Lec 1 Entrepreneurship types; Entrepreneurship theories Lec 2 2 2 The importance of creativity in business Lec 3 Theories of creative problem solving Lec 4 2 Convergent and divergent thinking 2 Lec 5 Subjective and organizational barriers blocking creativity Lec 6 2 Methods of creative thinking measurement; Individual features of the Lec 7 2 creators and entrepreneurs; Lec 8 Final test 2 Total hours 15 Number of Seminar hours The organization of classes, the measurement of motivation to creativity, Sem 1 Elements of creativity training – cooperation Sem 2 Sem 3 Elements of creativity training – abstracting 2 Sem 4 Elements of creativity training – deductive thinking 2 2 Sem 5 Elements of creativity training – inductive thinking 2 Sem 6 metaphors 2 Sem 7 Elements of creativity training – transformation Elements of creativity training – brainstorm Sem 8 2

## **TEACHING TOOLS USED**

15

- N1. Lecture
- N2. Multimedia presentation

Total hours

- N3. Moderated discussion
- N4. Group exercises
- N5. Individual exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(during semester), P –	number	

concluding (at semester end)				
F1	PEU_K01	Oral information		
F2	PEU_K02	Oral information		
C written project and knowledge test evaluation				

## written project and knowledge test evaluation

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] [Necka, E. (2001). Psychologia twórczości. Gdańsk: GWP
- [2] Piecuch, T. (2010). *Przedsiębiorczość. Podstawy teoretyczne*. Warszawa: Wyd. C.H. Beck
- [3] Proctor, T. (2002). Twórcze rozwiązywanie problemów. Gdańsk: GWP
- [4] Skonieczny, J. (2011). Kształtowanie zachowań innowacyjnych, przedsiębiorczych i twórczych w edukacji inżyniera. Wrocław: Wydawnictwo Indygo Zahir Media, cop.

## SECONDARY LITERATURE:

- [1] Duraj, J., Papiernik-Wojdera, M. (2010). *Przedsiębiorczość i innowacyjność*. Warszawa: Difin
- [2] Łaguna, M. (2010). Przekonania na własny temat i aktywność celowa. Badania nad przedsiębiorczością. Gdańsk: GWP
- [3] Morgan, M. (2001). Wyobraźnia organizacyjna. Warszawa: PWN
- [4] Strykowska, M. (red.) (2002). *Współczesne organizacje wyzwania i zagrożenia*. Poznań: Humaniora
- [5] West, M. (2000). Rozwijanie kreatywności wewnątrz organizacji. Warszawa: PWN

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, <u>beata.bajcar@pwr.edu.pl</u>

## SUBJECT CARD

Name of subject in Polish: Rachunkowość zarządcza Name of subject in English: Managerial accounting Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0033

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have basic knowledge in accounting and finance

## SUBJECT OBJECTIVES

- C1 Acquiring knowledge about the essence of management accounting and cost accounting models, their genesis as well as classification and specificity
- C2 Acquiring the ability to analyse the costs of their planning, forecasting and optimization as well as calculationsC2

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Demonstrate ordered knowledge of the nature of management accounting and cost accounting as well as their genesis and development stages in Poland and in the world.
- PEU\_W02 Characterize and know the methods and concepts of cost accounting and management accounting tools.

relating to skills:

- PEU\_U01 Is able to list, discuss, and indicate the differences between cost accounting models and their impact on the financial result.
- PEU\_U02 Is able to, in practice, perform cost calculations and perform cost analyses, their planning, forecasting and optimization.

relating to social competences:

- PEU\_K01 Is aware of the importance of management accounting in business practice, primarily its role in providing the management of the organization with economic information necessary to secure the organization's management processes, including the performance of its basic functions.
- PEU\_K02 Is prepared to collect, process and present financial and non-financial information about the project and the company and its environment, which aims to support managers in making operational and strategic decisions.

	PROGRAM CONTENT	Number of
	Lectures	hours
Lec 1	The essence and scope of managerial accounting - its place in the infernal system in management, genesis and evolution	1
Lec 2	Concept, classification, grouping and cost settlement procedures - rules, stages, directions	2
Lec 3	Calculation of costs - essence, subject, tasks of calculation (division and additional calculation, detailed calculation methods).	2
Lec 4	Cost accounting models in management accounting - concepts of cost accounting models and criteria for their classification, cost accounting models and material and time scope, variations of cost accounting, control and decision accounts and types: (variable cost accounting, standard cost accounting, activity cost accounting).	2
Lec 5	Other cost accounting models: (product life cycle costing, target costing, continuous improvement costing, costing, quality)	2
Lec 6	Price decisions and short-term decision accounts - price-setting factors, price determination methods, setting boundaries, assortment structure selection and production technology	2
Lec 7	Budgeting as an enterprise management method - the essence, role and classification of budgets, budgeting methods, structure and stages as well as enterprise budget procedures	2
Lec 8	Final test	2
	Total hours	15
	Classes	Number of hours
Cl 1	Grouping of costs in accounting records	1
Cl 2	Costs accountable	2
C1 3	Calculation of costs	2
Cl 4	Classic cost accounts	2
Cl 5	Other cost accounting models	2
Cl 6	Pricing and selection of assortment structure and technology	2
Cl 7	Budgeting and deviation analysis	2
C1 8	Final test	2
	Total hours	15
	TEACHING TOOLS USED	

- N1. Informative lecture
- N2. Multimedia presentation
- N3. Practical exercises

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_K01 PEU_K02	Written final test and oral amendment
F2	PEU_U01, PEU_U02 PEU_K01 PEU_K02	Assessment of the degree of commitment to the problems being solved
F3	PEU_U01, PEU_U02	Assessment of the budget semester task
F4 C (Lec) = F1	PEU_U01, PEU_U02	Final test

C (Lec) = F1

C (C1) = 0.1\*F2+0.3\*F3+0.6\*F4

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Rachunkowość zarządcza w przedsiębiorstwie (wyd. II), Edward Nowak, CeDeWu, 2018
- [2] RACHUNKOWOŚĆ ZARZĄDCZA, Zadania i testy, Anna Szychta, Justyna Dobroszek, Przemysław Kabalski, Wydawnictwo Uniwersytetu Łódzkiego, 2016
- [3] Rachunkowość zarządcza i rachunek kosztów. T. 1/S. Sojak. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa "Dom Organizatora", 2012.
- [4] Rachunkowość zarządcza. Analiza i interpretacja, Opracowanie zbiorowe, Wolters Kluwer, 2013
- [5] Rachunkowość Zarządcza I Rachunek Kosztów, Anna Karmańska, DIFIN, 2009

## SECONDARY LITERATURE:

- [6] Rachunek kosztów i rachunkowość zarządcza :teoria i praktyka /red. nauk. E. Nowak. Wrocław : Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, 2011.
- [7] Rachunkowość zarządcza /A.A. Jaruga, P. Kabalski, A.Szychta. Warszawa: Wolters Kluwer, 2010.
- [8] Rachunkowość zarządcza przedsiębiorstw. Rachunek kosztów/ D. Sołtys (red), Wyd AE Wrocław 2009.
- [9] Rachunkowość w zarządzaniu kosztami i wynikami przedsiębiorstwa /K. Kobiela-Pionnier. Warszawa: Vizja Press & IT, 2010.
- [10] Rachunek kosztów i rachunkowość zarządcza / G. K Świderska. (red), Stowarzyszenie Księgowych w Polsce, Warszawa 2008

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Agnieszka Parkitna <u>agnieszka.parkitna@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name in Polish: Raportowanie i wycena aktywów intelektualnych Name in English: Reporting and valuation of intellectual assets

Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Level and form of studies: 2<sup>nd</sup> level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0056

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15			
Number of hours of total student workload (CNPS)	90	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	3	2			
including number of ECTS points for practical (P) classes	_	2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	0,7			

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Related to Financial Accounting
- 2. Related to Corporate Finance and Financial Management

## SUBJECT OBJECTIVES

- C1 Making students familiar with a notion and classification of intellectual assets
- C2 Making students familiar with a role of intellectual assets in the economy based on knowledge
- C3 Masking students familiar with basic approaches to valuation of intellectual assets in corporation.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – students know a role of intellectual assets in creating value of corporation

PEU\_W02 – students know basic classifications and types of intellectual assets, including their presentations in bookkeeping

PEU\_W03 – students know basic approaches and methods of intellectual assets valuation in corporation

relating to skills:

PEU\_U01 – students are able to measure intellectual capital of corporation

PEU U02 – students are able to choose a proper method of intellectual capital valuation

PEU U03 – students are able to assess the value of intellectual assets

relating to social competences:

- PEU\_K01 students understand the need for permanent enlarging knowledge and developing skills in the area of role of intellectual assets in management and creating value of corporation
- PEU\_K02 students understand the importance of intellectual assets for corporations in new economy
- PEU\_K03 students are prepared to take part in projects aiming at increasing intellectual assets of corporation

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Genesis of intellectual capital as a factor of production	2
Lec 2	Approaches to defining and classifying intellectual capital	2
Lec 3	Application of measures of a vector type and of an information type for measuring intellectual capital of corporation	4
Lec 4	Strategies of intellectual capital management	2
Lec 5	Approaches to intellectual capital reporting	4
Lec 6	Types and classifications of intellectual assets of corporation	2
Lec 7	Intellectual assets as a source of value	1
Lec 8	Models of intellectual assets valuation	2
Lec 9	Estimating cost of capital for the needs of intellectual capital valuation	4
Lec 10	Brand valuation	2
Lec 11	Technological assets valuation	2
Lec 12	Valuation of customer relations	2
Lec 13	Summing up the lecture	1
	Total hours	30
	Classes	Number of hours
Cl 1	Introduction to classes	1
Cl 2	Measuring of intellectual capital on the example of a selected Corporation, applying various approaches	3
C1 3	Models of intellectual assets valuation	3
Cl 4	Estimating cost of capital for the needs of intellectual capital valuation	2
Cl 5	Valuation of various intellectual assets	4
Cl 6	Colloquium	2
<u></u>	Total hours	15

## TEACHING TOOLS USED

- N1. Lecture with application of multimedia presentations and discussion
- N2. Computational exercises solving tasks and discussing solutions
- N3. Students own work preparing for classes and colloquium.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	e	Way of evaluating learning outcomes achievement
	PEU_W01, PEU_W02, PEU_W03	Colloquium

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] T. Dudycz, Zarządzanie wartością przedsiębiorstwa, PWE, Warszawa 2005.
- [2] S. Kasiewicz, W. Rogowski, M. Kicińska, *Kapital intelektualny : spojrzenie z perspektywy interesariuszy*, Oficyna Ekonomiczna, Kraków 2006.
- [3] G. Urbanek, *Wycena aktywów niematerialnych przedsiębiorstwa*, PWE, Warszawa 2008.

[4]

## SECONDARY LITERATURE:

- [1] R.S. Kaplan, D.P. Norton, Strategiczna karta wyników, PWN, Warszawa 2002
- [2] H. K. Rampersad, Kompleksowa Karta Wyników, Placet, Warszawa 2004
- [3] L. Edvinsson, *Kapitał intelektualny*, PWN, Warszawa 2001.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, tadeusz.dudycz@pwr.wroc.pl

## **SUBJECT CARD**

Name of subject in Polish: Rozwiązywanie konfliktów w organizacji Name of subject in English: Problem resolving in Organization

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0105

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

## SUBJECT OBJECTIVES

- C1. Acquiring knowledge by the student in the field of interpersonal, group and organizational conflicts
- C2. To familiarize students with the methods of conflict resolution in groups and organizations.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01The student has knowledge of psychological mechanisms and factors conducive to the emergence of conflicts.

PEU\_W02 Knows methods of analyzing conflict situations and solving the relating to skills:

PEU\_U01 Able to identify, interpret and evaluate conflict situations.

PEU U02 - Is able to independently prepare a conflict situation analysis.

relating to social competences:

PEU\_K01 Demonstrate readiness to identify problems in the area of conflict resolution in the organization.

PEU\_K02 – Is able to independently seek additional knowledge and develop their skills in the field of conflict resolution.

PROGRAM CONTENT					
Lectures					
Lec 1	Conflicts - causes, functions, typologies.	1			
Lec 2	Dynamics in task and natural groups.	2			
Lec 3	The course of conflict situations.	2			
Lec 4	Phenomena accompanying conflicts - aggression, prejudices, stereotypes.	2			
Lec 5	Ways to resolve conflicts.	2			
Lec 6	Culture determinants of conflicts and the negotiation process.	2			
Lec 7	Social Negotiation	2			
Lec 8	Final test and summary	2			
	Total hours	15			
	Seminar	Number of hours			
Sem 1	Introduction. Organizational classes.	1			
Dem 1	introduction. Organizational classes.	-			
	Identification of features of conflict situations	2			
Sem 2		2 2			
Sem 2 Sem 3	Identification of features of conflict situations	2 2 2			
Sem 2 Sem 3 Sem 4	Identification of features of conflict situations Simulation of a conflict situation – group A				
Sem 2 Sem 3 Sem 4 Sem 5	Identification of features of conflict situations Simulation of a conflict situation – group A Simulation of a conflict situation – group B	2			
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C	2			
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C  Simulation of a conflict situation – group D	2 2 2			

## TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works

# N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
i i i i i i i i i i i i i i i i i i i	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
2 Works propuled in groups	DELL MOS	Oral feedback. Work evaluation

C Student analytical report, final test

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- 1. McKay, M., Davies, M., Fanning, P. (2001), Sztuka skutecznego porozumiewania się, Sopot, GWP
- 2. Fisher, R., Ury, W., Bruce, P. (1994). Dochodząc do tak. Warszawa, PWE
- 3. Necki, Z. (1999). Negocjacje w biznesie. Kraków, Wyd. Prof. Szkoły Biznesu
- 4. Witkowski, T, Chełpa, S. (2003) *Psychologia konfliktów*. Wrocław, Wydawnictwo Mediator

#### SECONDARY LITERATURE:

- 1. Berne, E. (2004) W co grają ludzie,
- 2. Wojciszke, B. (2001) Człowiek wśród ludzi.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Rynek kapitałowy I Name in English: Capital Market I

Main field of study (if applicable): Management Specialization (if applicable): Financial Management Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0048

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15			
Number of hours of total student workload (CNPS)	90	30			
Form of crediting	Examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	3	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	0,7			

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of basic methods for determining the time value of money
- 2. Ability to use information technology tools. Knowledge of Excel

#### **SUBJECT OBJECTIVES**

- C1 Understanding the structure of the financial market and financial instruments
- C2 Learning methods of valuation of capital investments
- C3 Knowledge of the functioning of the capital market

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01: Know the structure of the capital market, investment instruments

PEU\_W02: Know the tools of capital investments pricing

PEU\_W03: Know the derivative market

relating to skills:

PEU\_U01: Can build investment portfolios, evaluate their risk

PEU\_U02: Can price capital instruments and evaluate capital investment

relating to social competences:

PEU\_K01: Is aware of the functioning of the capital market

	PROGRAM CONTENT		
	Lectures	Number of hours	
Lec1	Introduction. The concept and structure of the financial market	2	
Lec 2	Classification of financial instruments	2	
Lec 3	The risk of investing in the capital market	2	
Lec 4	Risk and return on investment	2	
Lec 5	Statistical measures of the risks of investing	2	
Lec 6	Introduction to the theory of portfolio	2	
1 7	Construction of two elements portfolio	2	
Lec 7	Konstrukcja portfela dwuelementowego inwestycji	2	
Lec 8	Model CML	2	
Lec 9	Capital Asset Pricing Model CAPM	2	
Lec 10	Investment funds in the capital market	2	
Lec 11	Methods of portfolios assessment	2	
Lec 12	Futures market and its instruments	2	
Lec 13	Valuation of options	2	
Lec 14	The role and functions of the stock exchange and stock market indices	2	
Lec 15	test	2	
	Total hours	30	

	Classes	Number of hours
Cl 1	Introduction and discussion of classes	1
Cl 2	Quantitative measures of investment risk (the expected value, standard deviation, variation coefficient)	2
C1 3	Construction of two-factor portfolio (risk and rate of return of the portfolio)	2
Cl 4	Capital Market Line, market price of risk	2
Cl 5	Asset pricing models (Security Characteristic Line, Capital Asset Pricing Model, Security Market Line)	2
CL 6	Discreet risk evaluation (Bayesian model)	2
CL 7	Final test	2
CL 8	Improvement test	2
	Total hours	15

## TEACHING TOOLS USED

- N1.Multimedia lectures N2.Problems resolving N3.Practices

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

\ \	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEU_W03, PEU_U01, PEU_U02, PEU_K01	exam
C1	PEU_W01 ÷ PEU_W03, PEU_U01, PEU_U02, PEU_K01	test

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] RYNEK finansowy i jego mechanizmy : podstawy teorii i praktyki / Wiesław Dębski. Wyd. 2 uaktual. dodr 1. Warszawa : Wydaw. Naukowe PWN, 2003.
- [2] RYNEK papierów wartościowych / Witold Bień. Wyd. 5 zaktual. i rozsz. Warszawa : Difin, 2001
- [3] RYNEK pieniężny i kapitałowy, Kazimierz Zabielski. [Łódź] : Wydaw. Naukowe Wyższej Szkoły Kupieckiej, 1998
- [4] ANALIZA techniczna rynków finansowych / John J. Murphy ; tł. z ang. Wojciech Madej. Warszawa : WIG Press : Gazeta Giełdy "Parkiet", 1999
- [5] DYWERSYFIKACJA ryzyka na polskim rynku kapitałowym / Waldemar Tarczyński, Małgorzata Łuniewska. - Warszawa: Placet, 2004
- [6] FUNDAMENTALNY portfel papierów wartościowych: nowa koncepcja analizy portfelowej / Waldemar Tarczyński. Warszawa: Polskie Wydaw. Ekonomiczne, 2002. 200, [4] s.: rys., tab., wykr;
- [7] INSTRUMENTY finansowe / Janusz Kudła. Warszawa : Wydaw. Key Text : Oficyna Wydaw. Wyższej Szkoły Menedżerskiej SIG, 2002.
- [8] KONTRAKTY terminowe i opcje : wprowadzenie / John Hull; tł. z ang. Paweł Dąbrowski, Jarosław Sobkowiak. Wyd. 2. Warszawa : WIG-Press, 1998.
- [9] INSTRUMENTY pochodne na rynku kapitałowym / Waldemar Tarczyński. Warszawa: Polskie Wydaw. Ekonomiczne, 2003
- [10] INSTRUMENTY zabezpieczające w transakcjach walutowych / Daniel Meniów, Grzegorz Ochędzan, Zofia Wilimowska. Bydgoszcz : AJG Oficyna Wydawnicza : OPO [Ośrodek Postępu Organizacyjnego], 2003.
- [11] .SZTUKA inwestowania : analiza techniczna, strategie inwestycyjne i zarządzanie ryzykiem na GPW / Paweł Perz. Warszawa : K.E. Liber, 2008.
- [12] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [13] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

#### **SECONDARY LITERATURE:**

- [14] FORECASTING financial markets: the psychology of successful investing / Tony Plummer. 5 ed. paperback. London; Philadelphia: Kogan Page, 2008.
- [15] EKONOFIZYKA: wprowadzenie / Rosario N. Mantegna, H. Eugene Stanley; tł. z ang. Ryszard Kutner. Warszawa: Wydaw. Naukowe PWN, 2001.
- [16] Egzotyczne opcje finansowe : systematyka, wycena, strategie / Izabela Pruchnicka-Grabias.- Warszawa : CeDeWu, 2006.
- [17] KONTRAKTY terminowe w praktyce / Grzegorz Zalewski. Warszawa : WIG Press, 2000.
- [18] MODELING risk: applying Monte Carlo risk simulation, strategic real options, stochastic forecasting, and portfolio optimization / Johnathan Mun.- 2nd ed.- Hoboken: John Wiley & Sons, cop. 2010

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Rynek Kapitałowy II Name of subject in English: Capital Market II Main field of study (if applicable): Management Specialization (if applicable): Financial Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0057L

Group of courses: YES

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)			30		
Number of hours of total student workload (CNPS)			90		
Form of crediting			crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points			3		
including number of ECTS points for practical (P) classes			3		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Modeling in Excel spreadsheet
- 2. Basics of probability and statistics
- 3. Passed course "Capital Market I"

#### **SUBJECT OBJECTIVES**

- C1 –Presentation of financial market instruments
- C2 Ability to build analytical and simulation models to be used in pricing, rate of return evaluation and risk analysis when investing in fixed income securities, equity securities, derivatives.
- C3 Ability to evaluate the performance of investment port folio and construct efficient portfolios

#### SUBJECT LEARNING OUTCOMES

relating to skills:

PEU\_U01 Student can build the analytical and simulation models to carry out the analysis to valuate the investments, estimate the income rate, and identify the investment strategy.

PEU\_U02 Student identifies the risk of investment decisions. She applies the measurement and risk management methods using different tools of financial engineering.

Number of hours  4 , PBP, DPBP 4
, PBP, DPBP 4 2
2
2
2
2
2
4
nulation approach 4
alytical approach 4
2
2
30

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_U02	Assignment no 1
F2	PEU_U01 PEU_U02	Assignment no 2
F3	PEU_U01 PEU_U02	Assignment no 3
F4	PEU_U01 PEU_U02	Assignment no 4
F5	PEU_U01 PEU_U02	Assignment no 5
F6	PEU_U01 PEU_U02	Assignment no 6

	PEU_U01 PEU_U02	Assignment no 7
C grading		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Jajuga K., Jajuga T., *Inwestycje. Instrumenty finansowe. Ryzyko finansowe. Inżynieria finansowa.*, Wydawnictwo Naukowe PWN, Warszawa 2001
- [2] Holden C.W., Excel modeling in investments, Pearson Education, 2012
- [3] Wilimowska Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.

#### SECONDARY LITERATURE:

[1] Mielczarek B., Modelowanie symulacyjne w zarządzaniu. Symulacja dyskretna. Oficyna Wydawnicza PWr Wrocław 2009

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Bozena.Mielczarek@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Rynkowy system finansowy - ubezpieczenia

Name of subject in English: Market financial system - insurance

Main field of study (if applicable): Management Specialization (if applicable): Finance management

Profile: Academic

Level and form of studies: 2nd level, full-time

Kind of subject: Obligatory Subject code: W08ZZZ-SM0049

**Group of courses: NO** 

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	Crediting with grade	Crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7	0.7			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. The fundamental knowledge of finance and accounting in enterprises.
- 2. The fundamental knowledge of business law.
- 3. The knowledge of probability and statistics theory.

#### SUBJECT OBJECTIVES

- C1. Gaining by the student basic knowledge on insurance issues and a role of insurance in financial market systems.
- C2. Recognition by the student some issues, relating to importance of financial decisions and activities in insurance firm.
- C3. Ability to formulate an evaluation of financial safety (solvency) and effectiveness of insurance activities based on financial analysis of insurers and on risk evaluation.
- C4. Gaining by the student extended knowledge on modelling methods and risk with financial analysis in insurance and reinsurance activities.
- C5. Forming skills of insurance premium calculations, making financial analysis and setting safety conditions (solvency) in insurance business.

#### SUBJECT EDUCATIONAL EFFECTS

#### Relating to knowledge:

PEU\_W01 – Student has a structured knowledge on commercial insurance sector, functioning supervisory systems in insurance sector, and financial and accounting systems in insurance.

#### Relating to skills:

- PEU\_U01 Student is able to use some extended methodologies and tools of economic and financial analysis, to manage information sources and to link analytical techniques in different areas of financial systems in enterprise.
- PEU\_U02 Student is able to identify risk in decision making processes in different areas of enterprise. He/she is able to apply methods of insurance risk measuring, analysing and evaluating.

## Relating to social competences:

PEU\_K01 – Student is conscious of a demand and necessity for individual independent, critical evaluation of own professional knowledge and skills level on organisation and management and on interdisciplinary dimension as well. Student is expected to be prepared for individual searching for knowledge domains to explore and to improve. He/she is able to inspire and organise process of other people learning. Student is presenting a courage in transferring and defending own theses and opinions. Student is expected to be prepared for convincing and negotiating to reach common goals.

#### PROGRAMME CONTENT

	Lectures	Number of hours
Lec 1	Fundamentals of insurance law and insurance organisation system principles in Poland and in other countries.	1
Lec 2	Lec 2 Insurance supervisory systems. Insurance integration in EU.	
Lec 3	Insurance risk analysis and evaluation. Methods of insurance premium calculations. Methods and forms of reinsurance.	2
Lec 4	Insurance firm management. Principles of financial and accounting system in insurance.	2
Lec 5	Insurance accounting. Assets and liabilities structure. Balance. Locations and financial investments in insurance. Technical and insurance reserves. Financial effect of insurance activities.	2
Lec 6 Financial evaluation of insurance company. Dynamic financial analysis in insurer's solvency estimation. Rating systems for insurance. Monitoring and auditing in insurance.		2
Lec 7	Lec 7 Insurance value forming and management.	
Lec 8 Lecture assessment of knowledge and skills (test).		2
	Total hours	15
	Classes	Number of hours
Cl 1	Insurance risk analysis and evaluation. Methods of insurance premium calculations	
Cl 2	Methods and forms of reinsurance. Reinsurance activity evaluation.	
Cl 3	C13 Triggering events recording for insurance accounting system.	
Cl 4	Assets and liabilities structure. Balance. Locations and financial investments in insurance.	2

Cl 5	Technical and insurance reserves. Operational accounting in insurance. Financial effect of insurance activities.	2
Cl 6	Financial analysis and evaluation of insurance company. Dynamic financial analysis in insurer's solvency estimation. Rating systems for insurance.	2
Cl 7	Insurance value analysis for insurance company.	2
Cl 8	Summary, class knowledge and skills assessment – colloquium.	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Informative lecture
- N2. Problematic lecture discussions and comparisons
- N3. Multimedia presentation
- N4. Lists of exercises solutions and problem discussions
- N5. Discussion, case study

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
P	PEU_W01	Knowledge assessment in a test form
P	PEU_U01	Skills assessment in a colloquium form. Written work in an essay form and multimedia presentation – state of the art and case studies.
P	PEU_U02	Skills assessment in a colloquium form. Written work in an essay form and multimedia presentation – state of the art and case studies.
F	PEU_U01 PEU_U02	Assessment of class activity (attendance, ability to solve exercises from lists, presentation of a selected insurance issue).

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Bijak W., Praktyczne metody badania niewypłacalności zakładów ubezpieczeń, Wyd. SGH Warszawa, Warszawa 2009.
- [2] Gąsiorkiewicz L., Analiza finansowa banków i zakładów ubezpieczeń, Ofic. Wyd. PW, Warszawa 2016.
- [3] Hołda A., Staszel A., Rachunkowość finansowa ubezpieczycieli. Podejście pragmatyczne, Wyd. C.H.Beck, Warszawa 2014.
- [4] Jedynak P., *Ubezpieczenia gospodarcze. Wybrane elementy teorii i praktyki*, Wyd. Księgarnia akademicka, Kraków 2003.
- [5] *Metodologia analizy finansowej zakładów ubezpieczeń*, Biuletyn PUNU, 2001 (patrz strona KNF).
- [6] Messner Z. (red.), Rachunkowość finansowa i sprawozdawczość finansowa zakładu ubezpieczeń. Zbiór zadań, Wyd. AE Kraków, Kraków 2007.

- [7] Pietroń R., *Ubezpieczenia gospodarcze*, e-materiał dla studentów PWr., Wrocław 2019.
- [8] Sangowski T. (red.), *Finansowe narzędzia zarządzania zakładem ubezpieczeń*, Poltext Warszawa 2005.
- [9] Stępień M., Jonas K., Szkarłat A., Rachunkowość zakładów ubezpieczeń. Zbiór zadań, Wyd AE Kraków 2004.
- [10] Śliwiński A., Ryzyko ubezpieczeniowe. Taryfy budowa i optymalizacja, Wyd. Poltext Warszawa, 2002.

# SE<u>CONDARY LITERATURE:</u>

- [1] Jaworski W., Rating ubezpieczeniowy, Wyd. AE Poznań 2002.
- [2] Kuchlewska M. (red.), Szkice o ubezpieczeniach, Zeszyt 75, Wyd. AE Poznań 2006.
- [3] Sułkowska W. (red.), *Ubezpieczenia*, Wyd. AE Kraków 2007.
- [4] Wieteska S., (red.), *Ubezpieczenia*, Wyd. UMCS Lublin 2006.
- [5] Czasopisma ubezpieczeniowe: Asekuracja & Re (miesięcznik); Prawo. Ubezpieczenia. Reasekuracja. Branżowy Serwis Informacyjny; Prawo Asekuracyjne (kwartalnik); PUR Prawo Ubezpieczenia Reasekuracja (miesięcznik); Wiadomości Ubezpieczeniowe (miesięcznik).

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

#### Roman Pietroń, roman.pietron@pwr.edu.pl

Other teacher:

Małgorzata Rutkowska-Podołowska, malgorzata.rutkowska-podolowska@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Sprawozdawczość Finansowa Wspomagana Komputerem

Name in English: Computer Supported Financial Reporting

Main field of study (if applicable): Management Specialization (if applicable): Financial Engineering Level and form of studies: 2nd\* level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0050

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,		0,7		

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of accounting and finance

#### **SUBJECT OBJECTIVES**

C1 –To acquire the knowledge of advanced financial accounting and reporting based on the international standards

C2 – To acquire the ability to use international accounting and reporting standards

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student describes and knows the regulations relating to International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS).

relating to skills:

PEU\_U01 Student can reproduce accounting information and prepare financial reports based on the international standards.

relating to

PEU\_K01 Student is aware of the importance of international standards in business practice

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	The origin and the essence of IAS and IFRS	2
Lec 2	The process of IFRS and US GAAP convergence- looking for global standards	2
Lec 3	The conceptual frames in financial reporting – the comparison the traditional accounting	3
Lec 4	New IAS and MSSF regulations	2
Lec 5	New interpretations of INFRIC	2
Lec 6	The planned changes – the general characteristics of the expected changes	2
Lec 7	The final test	2
	Total hours	15
	Laboratory	Number of hours
Lab 1	Introductory meeting – the subject and tools	1
Lab 2	The reproducing of business operations in accounting books	2
Lab 3	Assets and liabilities	2
Lab 4	Cost and revenues	2
Lab 5	Test 1	2
Lab 6	Taxes	2
Lab 7	The preparation of financial reports	2
Lab 8	Test 2	2
	Total hours	15
	TEACHING TOOLS USED	

# N1. Information lecture.

- N2. Multimedia presentation

# N3. Practical exercises in accounting software (i.e. Rewizor type) EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>6</b> (a.a. <b>6</b> a.a. <b>7</b> )	_	Way of evaluating learning outcomes achievement
Р	PEU_W01	Final test
P=(P1+P2)/2, where P1 and P2 are the grades of tests 1 and 2 respectively	PEU_U01, PEU_K01	Final tests 1 and 2

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Radosiński E., Wprowadzenie do sprawozdawczości, analizy i informatyki finansowej, PWN, Warszawa 2010
- [2] Gabrusewicz W., Sprawozdawczość i analiza finansowa przedsiębiorstwa, Poznań Wydawnictwo Wyższej Szkoły Handlu i Rachunkowości, 2009.
- [3] Bień W., Czytanie bilansu przedsiębiorstwa dla menadżerów, Warszawa, Diffin 2010
- [4] Sprawozdawczość finansowa: praca zbiorowa pod red. K. Winiarskiej, Politechnika Koszalińska, Koszalin 2010
- [5] Sprawozdawczość finansowa : praca zbiorowa / pod red. Kazimiery Winiarskiej ; Politechnika Koszalińska.
- [6] Marek Ptak. Rewizor GT. Ewidencja księgowa bez tajemnic.
- [7] Międzynarodowe standardy sprawozdawczości finansowej (MSSF/MSR) 2009 :najnowsze zmiany /Alicja Jaruga [et al.]. Warszawa : Stowarzyszenie Księgowych w Polsce. Zarząd Główny : Centralny Ośrodek Szkolenia Zawodowego, 2009.
- [8] Międzynarodowe Standardy Rachunkowości /Roman Seredyński [et al.]. Warszawa : Wydawnictwo Poltext, 2009.
- [9] MSSF 1 :zastosowanie Międzynarodowych Standardów Sprawozdawczości Finansowej po raz pierwszy /Jerzy Gierusz, Karolina Gościniak, Beata Zackiewicz. Warszawa : Centrum Doradztwa i Informacji Difin, 2007.

#### **SECONDARY LITERATURE:**

- [1] Międzynarodowe standardy rachunkowości :ogólne zasady pomiaru i prezentacji pozycji bilansu i rachunku wyników /Ewa Walińska. Kraków : Wolters Kluwer Polska, 2007.
- [2] Międzynarodowe Standardy Sprawozdawczości Finansowej (MSSF) 2007 :obejmujące Międzynarodowe Standardy Sprawozdawczości Finansowej (MSSF) oraz Interpretacje według stanu na dzień 1 stycznia 2007 r.: kompletny tekst Międzynarodowych Standardów Sprawozdawczości Finansowej obowiązujących na dzień 1 stycznia 2007 r.T. 1 /[International Standards Committee Foundation; przekł. Stowarzyszenie Księgowych w Polsce]. [Warszawa]: Stowarzyszenie Księgowych w Polsce, [2007].
- [3] Międzynarodowe Standardy Sprawozdawczości Finansowej (MSSF) 2007 :obejmujące wydane przez IASB dokumenty uzupełniające MSSF i MSR : przykłady ilustrujące, wytyczne stosowania, uzasadnienia wniosków według stanu na dzień 1 stycznia 2007 r.T. 2 /[International Standards Committee Foundation; przekł. Stowarzyszenie Księgowych w Polsce]. [Warszawa] : Stowarzyszenie Księgowych w Polsce, [2007].

#### OPIEKUN PRZEDMIOTU (IMIE, NAZWISKO, ADRES E-MAIL)

Anna Kowalska-Pyzalska, <u>anna.kowalska-pyzalska@pwr.edu.pl</u>

#### SUBJECT CARD

Name of subject in Polish: Statystyka matematyczna i ekonometria

Name of subject in English: Statistics and ekonometrics

Main field of study (if applicable): Management

Specialization (if applicable): Financial Management, Entrepreneurship, Innovations and Projects, Information Technologies in Management, Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0034

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.		0,7		

\*delete as applicable

#### PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of descriptive statistics.

#### **SUBJECT OBJECTIVES**

- C1: Acquiring knowledge of the methods of mathematical statistics and construction of economic models.
- C2: Mastering the skills of statistical inference and building economic models based on statistical data.
- C3: Mastering the ability to use statistical software in statistical analysis and econometric modeling.
- C4: Acquiring specific social competences to independently improve their knowledge, defend their own views in a professional and ethical manner.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 He has basic knowledge of mathematical statistics methods.

PEU\_W02 He has basic knowledge of econometrics.

relating to skills:

PEU\_U01 He is able to apply statistical and econometric methods in solving decision problems in management processes.

relating to social competences:

PEU\_K01 The student is able to independently develop their knowledge and skills. The student is able to interact and work in teams. The student shows readiness to identify, analyze and solve problems in the field of identification and analysis of decision problems. The

student is ready to create and solve decision models in the management information system environment.

PEU\_K02 The student is able to professionally seek and choose methods for solving decision problems and take responsibility for them. The student is able to convey and defend their own views related to the selection and application of mathematical and IT methods and tools in making decisions.

# PROGRAM CONTENT

	Lectures	Number of hours
Lec 1	The parameters of a random variable	2
Lec 2	Cumulative distribution function, selected distributions and their parameters.	2
Lec 3	The normal distribution, the central limit theorem.	2
Lec 4	Confidence interval. Interval estimation when the sample size is small.	2
Lec 5	Confidence interval. Interval estimation when the sample size is large.	2
Lec 6	Parametric hypothesis testing.	2
Lec 7	Comparing two populations. Comparing parameters, comparing distributions.	2
Lec 8	Non-parametric hypothesis testing.	2
Lec 9	Basics of econometrics. Economic models.	2
Lec 10	Gauss-Markov assumptions. The metod of least squares.	2
Lec 11	Statistical packages. Verification of econometric models.	2
Lec 12	Examples of linear models.	2
Lec 13	Examples of nonlinear models.	2
Lec 14	Multiple-equation econometric models.	2
Lec 15	End of course test.	2
	Total hours	30
	Laboratory	Number of hours
Lab 1	Descriptive statistics.	2
Lab 2	The normal distribution.	2
Lab 3	Confidence intervals.	2
Lab 4	Parametric hypothesis testing.	2
Lab 5	Non-parametric hypothesis testing.	2
Lab 6	Analysis of variance.	2
Lab 7	Econometric models.	2
Lab 8	End of course test.	1
	Total hours	15

#### TEACHING TOOLS USED

- N1. A multimedia presentation.
- N2. Computer assisted data analysis.
- N3. Presentation of the project.
- N4. Written test.

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
` '		Partial credit based on knowledge of statistical packages and a prepared project.
P (lectures)	PEU_W01 PEU_W02	Written test.

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

[1] Amir D. Aczel: Statistics in management, PWN, Warsaw 2006.[2] G.S. Maddala: Econometrics, PWN, Warsaw, 2006.

#### SECONDARY LITERATURE:

- [1] Any handbook on statistics and econometrics.
- [2] Software manual

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Skowrońska-Szmer, <u>anna.skowronska-szmer@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Umowy w obrocie gospodarczym

Name of subject in English: Agreement in trade Main field of study (if applicable): Management

**Specialization (if applicable):** 

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0093

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge the law

#### **SUBJECT OBJECTIVES**

- C1 showing the importance of the agreements, as the primary vehicle for the exchange of goods and services in a market economy
- C2 characteristics of the agreements as an instrument for correcting market failure (such as intervention buying or selling products, raw materials or currency), or leading to the achievement of certain social consequences (eg, public works to stimulate the labor market)
- C3 characteristics of economic agreements applicable to business

# SUBJECT EDUCATIONAL EFFECTS

The scope of knowledge:

PEU\_W01 - knows what agreement is, how to conclude it and other mains rules in business transactions

PEU\_W02 - knows types of entitiens in business transactions and rules of solving contract disputes between them

#### Relating to skills:

PEU\_U01 - is able to make the correct interpretation of the laws, can edit a draft of agreement and is able to assess the impact of its conclusion

#### The scope of social competence:

PEU\_K01 - is aware of the need to develop their own knowledge and professional skills.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec1	Obligations of the contract as a source of	1
Lec2	The principle of freedom of contract and its practical consequences for the economic	1
Lec3	Concept and types of contracts	1
Lec4	General characteristics of economic agreements	1
Lec5	The methods and procedures for contract	1
Lec6	Legal nature of the contract preparation activities standard contracts	1
Lec7	Implementation of trade agreements - practical aspects	
Lec8	Trade agreements in cross-border	1
Lec9	Trade agreements in cross-border	1
Lec10	Characteristics of contracts related to trading in financial instruments in the capital market	1
Lec11	Licensing agreements in the enterprise market activity	1
Lec12	Characteristics of selected banking agreements	1
Lec13	Contractual litigation. Arbitration clause	1
Lec14	The use of mediation and arbitration of contractual disputes	1
Lec15	European contract law	1
	Total hours	15
	Classes	Number of hours
Cl1	The contract of sale and its regulation in the Civil Code	2
C12	The supply Agreement	2
C13	Economic importance of the lease	2
Cl4	Tax effects of the leasing agreement	2
C15	Franchise agreement	2
Cl6	Credit Agreement and its characteristics	2
Cl7	Contract as a source of obligations under European law	3
	Total hours	15

	TEACHING TOOLS USED	
N1. N1. informative lecture		
N2. multimedia presentation		
N3 lecture problem		

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

\ 0	Educational effect number	Way of evaluating educational effect achievement
	PEU_W01 PEU_W02	written test
D_1		

#### P=1

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Koch A., Napierała J., Umowy w obrocie gospodarczym, Wyd. Wolters Kluwer, Warszawa 2011
- [2] Rajski J., Prawo o kontraktach w obrocie gospodarczym, Warszawa 2005
- [3] Gospodarek J., Umowy gospodarcze. Wybrane zagadnienia, Oficyna Wydawnicza SGH, Warszawa 2010
- [4] Ustawa z dnia 23 kwietnia 1964 r. Kodeks cywilny (Dz. U. z 1964 r., Nr 16, poz. 93 z późn. zm)
- [5] Turzyński M., Umowy leasingu w prawie podatkowym i bilansowym, Wyd. Wolters Kluwer Business, Warszawa 2009
- [6] Budzyński W., Umowy w handlu krajowym i zagranicznym, Wyd. Poltex, Warszawa 2012 **SECONDARY LITERATURE:**
- [1] Radwański Z. Ponowisz Lipska J. "Zobowiązania. Część szczegółowa" Wydawnictwo C.H. Beck, Warszawa 2001
- [2] Czachórski W., Zobowiązania, Wydawnictwo Prawnicze, Warszawa 2002
- [3] Władyka S.,(red.), Prawo umów w obrocie gospodarczym, Wyd. C.H. Beck, Warszawa 2001
- [4] Ciepła H.., Pieniek G., komentarz do kodeksu cywilnego. Księga III Zobowiązania Tom 2, Wydawnictwo prawnicze, Warszawa 2001
- [5]Stec M., Prawo umów w obrocie gospodarczym, pod. red S. Władyki, Wyd. C.H. Beck, Warszawa 2001
- [6] Koch A., Napierała J., Prawo spółek handlowych, Wyd. Wolters Kluwer, Warszawa 2011

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Aldona- Malgorzata Dereń aldona.deren@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Zarządzanie ryzykiem Name in English: Risk Management

Main field of study (if applicable): Management Specialization (if applicable): Financial Management Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0054

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				60
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				2
including number of ECTS points for practical (P) classes					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7				0,7

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of basic methods of organizations management
- 2 Understand the concept of risk and the need to reduce it
- 3 Knowledge of the changing environment of the organization

#### SUBJECT OBJECTIVES

- C1 Understanding internal and external sources of risk of the organization
- C2 Understanding risk management methods

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Understand the sources of risk in the enterprise
- PEU\_W02 Knows the risk management tools in enterprises, banks, insurance companies
- PEU\_W03 Has knowledge of derivative financial instruments

relating to skills:

- PEU\_U01 Be able to assess risk of financial investments
- PEU\_U02 Can make use of measures of risk and risk management tools

relating to social competences:

PEU\_K01 Is aware of the importance and methods of risk measurement, risk strategy management

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction - objectives and risk management functions	2
Lec 2	Sources of risk in the organization	2
Lec 3	Types of risks and risk management (FARM model)	2
Lec 4	Methods for enterprise risk management, diversification	2
Lec 5	Methods of risk management in the bank (credit risk)	2
Lec 6	Methods of risk management in insurance company	2
Lec 7	Derivative instruments in the management of risk	2
Lec 8	Test	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction and overview of the tasks	2
Sem 2	The method of risk diversification - portfolio of activities	2
Sem 3	VaR in risk assessment	2
Sem 4	Construction of the loan portfolio	2
Sem 5	Examples of actuarial	2
Sem 6	Risk mapping method	2
Sem 7	The method of risk listing	2
Sem 8	Test	1
	Total hours	15
	TEACHING TOOLS USED	
	ltimedia lecture	
	oblems resolving	
N3.Pra	actices	

# N3.Practices EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEU_W03, PEU_U01, PEU_U01, PEU_K01	test
S1	PEU_W01 ÷ PEU_W03, PEU_U01, PEU_U01, PEU_K01	Student speach at the seminar
С		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] RYZYKO i niepewność w zarządzaniu firmą / Marian Krupa. Kraków ; Kluczbork : Antykwa, 2002
- [2] RYZYKO ekonomiczne w działalności gospodarczej / Sławomir Nahotko. Wyd. 2 zm. i uzup. Bydgoszcz : Oficyna Wydawnicza Ośrodka Postępu Organizacyjnego, 2001RYZYKO działalności inwestycyjnej przedsiębiorstw / Alfreda Zachorowska. Warszawa : Polskie Wydaw. Ekonomiczne, 2006.
- [3] POMIAR ryzyka kredytowego banku : aspekty finansowe i rachunkowe / Radosław Kałużny. Warszawa : Wydaw. Naukowe PWN, 2009.
- [4] RACJONALNOŚĆ decyzji : pewność i ryzyko / Tadeusz Tyszka, Tomasz Zaleśkiewicz. Warszawa : Polskie Wydaw. Ekonomiczne, 2001
- [5] RYZYKO projektów inwestycyjnych / Elżbieta Ostrowska. Warszawa : Polskie Wydaw. Ekonomiczne, 2002.
- [6] Skoring w zarządzaniu ryzykiem.- Kraków: StatSoft Polska, 2010.
- [7] SZTUKA inwestowania : analiza techniczna, strategie inwestycyjne i zarządzanie ryzykiem na GPW / Paweł Perz. Warszawa : K.E. Liber, 2008. -
- [8] TAJNIKI Value at Risk: praktyczny podręcznik zastosowań metody VaR / Cormac Butler; tł. z ang. Tymoteusz Doligalski. Warszawa: K.E. Liber, 2001.
- [9] Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa. T. 1, Podstawy / pod red. Bogusława Hadyniaka i Jana Monkiewicza.- Warszawa: Wydawnictwo Poltext, cop. 2010.
- [10] Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa. T. 2, Zastosowania / pod red. Lecha Gąsiorkiewicza i Jana Monkiewicza.- Warszawa: Wydawnictwo Poltext, cop. 2010.
- [11] ZARZĄDZANIE ryzykiem finansowym w bankach : teoria i praktyka zarządzania aktywami i pasywami / Dennis G. Uyemura, Donald R. van Deventer. Warszawa : Związek Banków Polskich, 1997.
- [12] WILIMOWSKA Z., WILIMOWSKI M., Sztuka zarządzanie finansami., Bydgoszcz, TNOiK OPO, 2001

#### SECONDARY LITERATURE:

- [1] ZARZĄDZANIE ryzykiem w przedsięwzięciach inwestycyjnych : ryzyko walutowe i ryzyko stopy procentowej / Waldemar Rogowski, Andrzej Michalczewski. Kraków :
- [2] RYZYKO finansowe : metody identyfikacji i zarządzania ryzykiem finansowym / John Holliwell; tł. z ang. Przemysław Lach. Warszawa : K.E. Liber, 2001Oficyna Ekonomiczna, Oddział Polskich Wydawnictw Profesjonalnych, 2005
- [3] UBEZPIECZENIA: rynek i ryzyko: praca zbiorowa / red. Wanda Ronka-Chmielowiec; Krzysztof Jajuga [et al.]. Warszawa: Polskie Wydaw. Ekonomiczne, 200

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, Tadeusz.dudycz@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Zarządzanie Strategiczne Name in English: Strategic Management

Main field of study (if applicable): Management

Specialization (if applicable):

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			30	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			1	1
including number of ECTS points for practical (P) classes				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### **SUBJECT OBJECTIVES**

C1 Obtaining knowledge about strategic management

C2 Introduce instruments (strategies, models and methods), that support strategic management

C3 Acquire by students skills for practice strategic management tools

#### SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Students know the idea of strategic management

PEU\_W02 Knowledge about variety of strategies

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a strategy

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of strategic management

Relating to social competences:

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Sem 8	Strategy implementation	2
	Total hours	15

#### **TEACHING TOOLS USED**

- N1. Multimedia performance
- N2. Reports
- N3. Selected statistical data

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the student activity by checking list of presence (lecture, seminar, project)
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the knowledge by exam, preparing the project and seminar performance
F3	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, project, seminar)

P = 0.25F1 + 0.5F2 + 0.25F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [[1] Gierszewska G., Olszewska B., Skonieczny J., **"Zarządzanie strategiczne dla inżynierów"** PWE Warszawa 2013
- [2] **Zarządzanie strategiczne. Systemowa koncepcja biznesu**, pod red. M. Moszkowicza, PWE Warszawa 2005

#### SECONDARY LITERATURE:

- [1] Obłój K., "Pasja i dyscyplina strategii" Wydawnictwo Poltex 2010
- [2] Krawiec F., "Zarządzanie strategią firmy", Difin, Warszawa2011
- [3] Świda A., "Strategic Management", Wroclaw University of Technology, Wrocław 2011
- [4] "O strategii" Harvard Business Reviev Polska 2012
- [5] Gierszewska G., Romanowska M., "Analiza strategiczna", PWE Warszawa 2009

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zespół ds. strategii: dr inż. Piotr Kubiński, <u>piotr.kubinski@pwr.edu.pl</u>; dr inż. Jan Skonieczny; jan.skonieczny@pwr.edu.pl; dr inż. Adam Świda <u>adam.swida@pwr.edu.pl</u>;

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Zarządzanie wartością przedsiębiorstwa

Name in English: Value Based Management Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0043

Group of courses: NO

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	90			60	
Form of crediting	Examination			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	3			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of methods of time value of money calculation
- 2 Knowledge of the basic financial statements
- 3 Ability to perform simple mathematical calculations

#### **SUBJECT OBJECTIVES**

- C1 Concept of organization value and the factors influencing the value
- C2 Understanding the purpose and function of the organization valuation
- C3 Knowledge of methods of organization valuing and use them in the management process

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 knows the objectives and functions of the valuation

PEU\_W02 knows methods of company valuation

PEU\_W03 knows the tools of value pricing and their use in management

relating to skills:

PEU\_U01 understand the objectives of the company value pricing

PEU\_U02 can use assets valuation methods to company valuation

PEU\_U03 can develop a financial model and prepare a company value by income methods,

# including DCF

relating to social competences:
PEU\_K01 Is conscious the role of company value in the economy

	Lectures	Nu	mber of hours
Lec 1 Introduction	n. The concept of value and the company value		2
Lec 2 The object:	ives and functions of the pricing process		2
Lec 3 Classificati	on of the factors of values		2
Lec 4 Classificati	on of methods of pricing		2
Lec 5 Assets and	Comparative Methods		2
Lec 6 Income me	thods		2
Lec 7 Value base	d management process		2
Lec 8 test			1
Total hours	S		15
	Project		Number of hours
Proj 1 Introduct	ion		2
Proj 2 Valuation	n of the selected company by assets method		6
Proj 3 Valuation	n of the selected company by DCF method		6
Proj 4 Presentat	ion of results		1
Total hou	ırs		15
	TEACHING TOOLS USED		

- N2. Problems resolving
- N3. Computational exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEK_W03, PEU_U01 ÷ PEK_U03, PEU_K01	Exam
Pr1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Project evaluation
P1		

#### PRIMARY LITERATURE:

- [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa, 1995.
- [2] ICKIEWICZ J., Strategia finansowania przedsiębiorstwa, Poltext, Warszawa, 1993.
- [3] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [4] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

#### SECONDARY LITERATURE:

- [1] [JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting, AE, Wrocław 1994.
- [2] Pluta W., Strategie inwestowania, Wyd. PLACET, Warszawa, 1995.
- [3] Levy H., Sarnat M., *Capital investment and Financial Decisions*, Prentice Hall, Hrertforshire, 1994
- [4] LUMBY S., *Investment Appraisal and Financial Decisions*, London, Chapman & Hall, 1996
- [5] Cwynar A., Systemy VBM i zysk ekonomiczny : projektowanie, wdrażanie, stosowanie, 2010
- [6] Damodaran A., Finanse korporacyjne : teoria i praktyka 2007

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Zespołami Ludzkimi

Name of subject in English: Team management Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0106

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠				0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about the principles of group functioning
- C2 Understanding the role of the leader in the group
- C3 Acquiring knowledge about the possibilities of using HRM tools for group management
- C4. Acquiring the ability to manage a task group

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student knows the basic principles of group functioning

PEU W02 Student knows what team management is like

relating to social competences:

PEU\_K01 Is able to set priorities in own work and in cooperation with others, is able to interact and work in a group

PEU\_K02 Is able to influence the members of the group in order to perform the task effectively

PEU\_K03 Apply adequate motivational and communication tools in the work of a leader

	Lectures	Number of hours
Lec 1	Why are groups so important for everyone?	1
Lec 2	The process of group formation and group dynamics	2
Lec 3	Authority and leadership	2
Lec 4	The role of the leader in the group	2
Lec 5	Composing teams by a leader	2
Lec 6	The use of HRM tools for effective group management	2
Lec 7	Social identity, intergroup attitudes	2
Lce 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Seminar  Introduction. Features of an effective leader	
Sem 2	Introduction. Features of an effective leader	hours 1
Sem 2 Sem 3	Introduction. Features of an effective leader Identifying your strengths in team roles	hours 1 2
Sem 2 Sem 3 Sem 4	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A	hours 1 2
Sem 2 Sem 3 Sem 4 Sem 5	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation – leader B	hours 1 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C	hours 1 2 2 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C Team work simulation - leader D	hours 1 2 2 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C Team work simulation - leader D Team work simulation - leader E	hours  1 2 2 2 2 2 2 2 2 2

# N1. Lecture

- N2. Group exercises
- N3. Simulations
- N4. Team work

# N5. Discussion of problems and results of works N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

	C	Way of evaluating learning outcomes achievement
concluding (at semester end)		
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
groups	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEK_K02	Oral feedback. Work evaluation
C Student analytical report, fi	inal test	

#### PRIMARY AND SECONDARY LITERATURE

## **PRIMARY LITERATURE:**

- 1. Belbin, M. (2009). Zespoły zarządzające. Sekrety ich sukcesów i porażek. Warszawa: wyd. Kluwer
- 2. Lencioni P. (2016). Pięć dysfunkcji pracy zespołowej. Gdańsk: GWP
- 3. Duhigg Ch. (2016). Mądrzej, szybciej, lepiej. Warszawa: PWN
- 4. Kożusznik, B. (2005). Wpływ społeczny w organizacji. Warszawa: PWE

#### SECONDARY LITERATURE:

- 1. Cialdini R. (2016). Wywieranie wpływu na ludzi. Teoria i praktyka. Gdańsk: GWP
- 2. Stephan, W., Stephan, C. (2007). Wywieranie wpływu przez grupy. Gdańsk: GWP

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska <u>anna.borkowska@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Zintegrowane systemy informatyczne zarządzania Name of subject in English: Integrated Management Information Systems

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0036

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	60		30		
Form of crediting	Examination		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		0,7		

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

- 1. theory of organisation and management
- 2. essentials of enterprise management
- 3. basics of computer science

#### SUBJECT OBJECTIVES

- C1 Knowledge of integrated management information systems (IMIS)
- C2 Ability to use ERP IMIS
- C3 Knowledge of the implementation of IMIS

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 – knowledge of MIS classifications

PEU\_W02 – knowledge of rules of MIS integration

PEU\_W03 – knowledge of basic functions in business areas of MIS

PEU\_W04 – knowledge of MIS history and new approaches

PEU\_W05 – knowledge of the MIS implementation in the organization

PEU\_W06 – knowledge of rules of selecting MIS

PEU\_W07 – knowledge of human aspects of the MIS implementation

PEU\_W08 – knowledge of gathering requirements before the MIS implementation (e.g. business process modeling)

PEU\_W09 – knowledge of risk factors in the MIS implementation

#### relating to skills:

PEU\_U01 – ability to classify a MIS

PEU\_U02 – ability to find differences between MRP – MRPCL – MRPII – MRPIII – ERP – ERPII

PEU\_U03 – ability to plan implementation of MIS

PEU\_U04 – ability to find and minimalize risk factors during the MIS implementation

PEU\_U05 – ability to set goals for the MIS implementation

PEU\_U06 – ability to plan trainings for users of MIS

PEU\_U07 – ability to analyze functionality of ERP system

PEU\_U08 – ability to model business process

PEU\_U09 – ability to prepare and present own approach to the MIS implementation

#### relating to social competences:

PEU\_K01 – ability to searching for information and analyzing

PEU\_K02 – developing ability to think independently and creatively

PEU\_K03 – understand the importance of business requirements in the design and implementation of information systems

PEU\_K04 – developing entrepreneurial thinking

PEU\_K05 – developing the skills of group working

PROGRAMME CONTENT						
	Number of hours					
Lec 1	Introduction	2				
Lec 2	Management Information Systems	2				
Lec 3	Typology of informational systems at the angle of primary criterions. Types MPR II/ERP.	2				
Lec 4	APICS standards (MRP, MRPII)	2				
Lec 5	Classification of integrated systems according to APICS standards (MRP, MRP-CL, MRPII, MRPII+/MRPIII)	2				
Lec 6	ERP systems	2				
Lec 7	ERP II systems	2				
Lec 8	CRM and PRM systems	2				
Lec 9	Service Oriented Architecure (SOA) and mobile technologies in management	2				
Lec 10	General characteristics of management information system sets	2				
Lec 11	Informatics strategies of enterprise management	2				
Lec 12	Choosing and implementation of system set	2				
Lec 13	Training and coaching during IMIS implementation	2				
Lec 14	Implementation risks	2				
Lec 15	Conclusion	2				
	Total hours	30				
	Number of hours					
Lab 1 Ir	2					
	eneral settings	2				
Lab 3 C	alculation of product's costs	2				

Lab 4	Purchasing orders (PO)	2
Lab 5	Work orders (WO)	2
Lab 6	MRP planning	2
Lab 7	Analysis of selected area of ERP system	2
Lab 8	Conclusion	1
	Total hours	15

#### TEACHING TOOLS USED

- N1. Traditional lecture
- N2. Using MIS tool
- N3. Work with the teacher
- N4. Self-learning for labs
- N5. Self-learning for lectures

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W09 PEU_U01–PEU_U06 PEU_K01 PEU_K03	test
F2	PEU_U07 -PEU_U09 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the seminar and lab work

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Jerzy Kisielnicki: MIS Systemy informatyczne zarządzania, PLACET, 2009
- [2] Zbigniew Klonowski: Systemy informatyczne zarządzania przedsiębiorstwem : modele rozwoju i właściwości funkcjonalne, Oficyna Wydawnicza Politechniki Wrocławskiej, 2004
- [3] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [4] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [5] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

#### SECONDARY LITERATURE:

- [1] Czasopismo Computerworld
- [2] Czasopismo Teleinfo
- [3] Materiały szkoleniowe dostawcy wybranego systemu klasy ERP

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Badania ewaluacyjne w projektach innowacyjnych

Name of subject in English: Evaluation studies of innovative projects

Main field of study (if applicable):Management

Specialization (if applicable): Entrepreneurship, innovation and projects

Profile: academic

Level and form of studies: 2st level, full-time

Kind of subject: elective

Subject code: W08ZZZ-SM0107

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	90				
Form of crediting	crediting with grade				
For group of courses mark (X) final course					
Number of ECTS points	3				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4				

<sup>\*</sup>niepotrzebne skreślić

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of the methodologies and tools of research and sociological research

#### SUBJECT OBJECTIVES

- C1. To gain knowledge about the evaluation of innovative projects.
- C2. To gain knowledge of the rules of conduct evaluations of their importance for the conduct of innovative
- C3. Introduction to the practice of evaluation research

## SUBJECT EDUCATIONAL EFFECTS

The scope of knowledge:

PEU\_W01 - The student has knowledge of the subject area - about the tools of social research

PEU\_W02 - Student knows the principles of correct conduct of the research process.

The range of skills:

PEU\_U01 - student can correctly give the research questions, specify the purpose of research, choose the test, tools, analyze and draw conclusions from the data collected.

PEU\_U02 - student can independently carry out the research process.

The scope of social skills:

PEU\_K01 - The student demonstrates a willingness to identify and solve research problems in the social and organizational.

	PROGRAMME CONTENT				
	Lectures Number of hours				
Lec 1	The place and role of evaluation in project evaluation	2			
Lec 2	The diversity of approaches and evaluation approaches	2			
Lec 3	Typologies and evaluation criteria (1)	2			
Lec 4	Typologies and evaluation criteria (2)	2			
Lec 5	Evaluation as a proces	2			
Lec 6	Standards of evaluation	2			
Lec 7	Planning of evaluation	2			
Lec8	Methods of evaluation	2			
Lec 9	Evaluation as one of the innovative project management tools	2			
Lec 10	Evaluation as a tool of implementation	2			
Lec 11	Evaluation as a tool to assess the quality of the project	2			
Lec 12	Evaluation in practice (case studies) (1)	2			
Lec 13	Evaluation in practice (case studies) (2)	2			
Lec 14	Evaluation in practice (case studies) (3)	2			
Lec 15	Final project/test	2			
	Total hours	30			

# TEACHING TOOLS USED

N1. Lectures

N2. A multimedia presentation

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1=P		
P	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01	Written exam-test

#### PRIMARY AND SECONDARY LITERATURE

# **PRIMARY LITERATURE:**

- [1] Appelt Karolina., Jabłońki Sławomir et.al., 2010, Konstruowanie i ewaluacja projektów, Warszawa: WN Scholar
- [2] Babbie Earl, 2004, Badania społeczne w praktyce, Warszawa: PWN
- [3] Haber Agnieszka, Szałaj Maciej , 2009, Ewaluacja wobec wyzwań stojących przed sektorem finansów publicznych, Warszawa: PARP
- [4] Haber Agnieszka, Szałaj Maciej , 2010, Ewaluacja w strategicznym zrządzaniu publicznym, Warszawa: PARP

# **SECONDARY LITERATURE:**

- [1] Korporowicz Leszek, 1997, Ewaluacja w edukacji, Warszawa: Oficyna Naukowa
- [2] Ornacka Katarzyna, 2003, *Ewaluacja. Między naukami społecznymi i pracą socjalną*, Zeszyty Pracy Socjalnej (zeszyt ósmy), Kraków: ISUJ
- [3] Szatur-Jaworska Barbara, 2010, Ewaluacja w służbach społecznych, Warszawa: PARP

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jagoda Mrzygłocka- Chojnacka; jagoda.mrzyglocka-chojnacka@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Badania Operacyjne Name of subject in English: Operations Research Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0037

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Examination		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in algebra and logic
- 2. Basic skills in computer programming

#### SUBJECT OBJECTIVES

- C1. Showing students the basic optimization problems such as: linear programming, integer programming and network flow problems; indication of the practical applications of these problems.
- C2. Showing students the basic methods of solving the above problems.
- C3. Acquisition by students of the ability to identify decision variables, input data and objectives in practical decision situations and build a mathematical programing model.
- C4. Acquisition by students of the ability to interpret the solutions of the optimization models.
- C5. Presenting the software for solving optimization problems.

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Has specialist knowledge of the basic methods used in operational research.

relating to skills:

PEU\_U01 - Is able to apply operational research methods as a tool supporting advanced decision-making analyzes.

PEU\_U02 - Is able to use specialized software for building and solving optimization models.

#### PROGRAM CONTENT Number of Lectures hours Operations research methodology; linear programming problem and its 1 Lec 1 applications. Graphical method and the simplex algorithm for linear programming. 2 Lec 2 2 The simplex algorithm and sensitivity analysis for linear programming. Lec 3 Integer programming and its applications. 2 Lec 4 Branch and bound algorithm for integer programming. 2 Lec 5 Basic network problems, part I (the shortest path and and maximum flow 2 Lec 6 problems). Basic network problems, part II (transportation problem). 2 Lec 7 Multicriteria programming – applications and solution methods. 2 Lec 8 15 **Total hours** Laboratory Number of hours Introduction. Presentation of optimization software. Graphical method of solving Lab 1 linear programming problems. 2 Lab 2 Building and solving linear programming models for practical problems. Lab 3 Building and solving linear programming models for practical problems. 2 Lab 4 Building and solving linear programming models for practical problems. 2 Lab 5 Building and solving linear programming models for practical problems. 2 Solving linear programming problems by using the simplex algorithm. Sensitivity Lab 6 2 analysis in linear programming. Building and solving integer programming models for practical problems. 2 Lab 7 Building and solving integer programming models for practical problems. 2 Lab 8 2 Lab 9 Building and solving integer programming models for practical problems. Lab 10 Solving integer programming problems using the branch and bound algorithm. 2 Lab 11 Building and solving network flow models for practical problems. 2 Lab 12 Building and solving network flow models for practical problems. 2 Lab 13 Building and solving network flow models for practical problems. 2 Lab 14 Preparation for the test. 2

#### TEACHING TOOLS USED

30

N1. Presentation

Lab 15 Written test.

Total hours

- N2. Solving tasks
- N3. Using optimization software

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(duffing sefficater), I	number	
concluding (at semester		
end)		
P	PEU_W01	Examination
	PEU_U01 PEU_U02	Written test
P=1		

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] H. Taha. Operations research. An introduction. Prentice Hall 2011
- [2] F. S. Hiller, G. J. Liberman. Introduction to operations research. Mc Graw Hill 2003
- [3] W. L. Winston. Operations research: applications and algorithms. PWS-KENT Publishing Company 1987
- [4] H. Wagner. Badania operacyjne. PWE Warszawa 1980.

# SECONDARY LITERATURE:

- [1] H. P. Williams. Model building in mathematical programming. Wiley 1990.
- [2] R.K. Ahuja, T. L. Magnanti, J. B. Orlin. Network flows: theory, algorithms and applications. Prentice Hall, Inc., 1993
- [3] R.S. Garfinkel, G. L. Nemhauser. Programowanie całkowitoliczbowe. PWN, 1978
- [4] M. S. Bazaraa, J. J. Jarvis, H. D. Sherali. Linear programming and network flows. Wiley 2010.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Biznes oparty na wiedzy Name of subject in English: Knowledge-based business

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0073

Group of courses: NO

-	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basics of management theory.
- 2. Ability to use standard office software (spreadsheets, presentation tools) effectively.

#### **SUBJECT OBJECTIVES**

- C1. Extending students' knowledge of knowledge management in business organization.
- C2. Getting the skills needed to choose and apply organizational learning and knowledge sharing facilitators.
- C3. To improve students, system thinking abilities

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Knows specifics of main approaches to knowledge management and can distinguish between them.
- PEU\_W02 Understands the multi levelled nature of organizational learning and knows factors influencing organizational learning and knowledge sharing.
- PEU\_W03 Understands and can explain the value of information for business success

relating to skills:

PEU\_U01 Is able to apply some tools supporting reflective learning and knowledge sharing. PEU\_U02 Is able to perform qualitative information assessment

relating to social competences:

PEU\_K01 Acknowledges socio-economic systems' complexity and necessity of lifelong learning.

PEU\_K02 Appreciates the benefits of social learning and knowledge sharing

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction. Some methods supporting reflective learning	1
Lec 2	Information as a success factor in business. Infological Equation. Information evaluation methods.	2
Lec 3	Knowledge management as a management fashion. Managemanet fashion theory.	2
Lec 4	Tacit/explicit knowledge and other knowledge classifications Knowledge codification and personalization. Knowledge sharing.	2
Lec 5	Organizational learning. Factors influencing organizational learning and knowledge sharing	2
Lec 6	Review of knowledge management tools.	2
Lec 7	Knowledge management in complexity lens.	2
Lec 8	Test.	2
	Total hours	15

	Laboratory	Number of
		hours
Lab 1	Introduction.	1
Lab 2	Mindmapping exercises	2
Lab 3	Behavioral simulation project – the 1st stage	4
Lab 4		
Lab 5	Behavioral simulation project – the 2 <sup>nd</sup> stage	2
Lab 6	Simulation – run I	2
Lab 7	Simulation – run II	2
Lab 8	Debriefing	2
	Total hours	15

# TEACHING TOOLS USED

- N1. informative lecture
- N2. multimedia presentation
- N3. simulation
- N4. discussion
- N5. mindmapping
- N6. team working
- N7. final report
- N8. self-studying

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning outcomes	Way of evaluating learning outcomes				
forming (during	number	achievement				
semester), P –						
concluding (at semester						
end)						
P1	PEU_W01,	Test or/and term paper				
	PEU_W02,					
	PEU_W03					
F1	PEU_U01	Assessment of simulation projects (1st stage)				
F2	PEU_U01	Assessment of simulation projects (2 <sup>nd</sup> stage)				
F3	PEU_U01,	Final report				
	PEU_U02					
F4	PEU_U01,	Rewarding students' involvement in classes,				
	PEU_U02	rewarding students' engagement in debriefing				
		discussions				
P1 – lecture						
P2 – laboratory	P2 – laboratory					

P2 = (2(F1+F2+F3)+kF4)/(6+k)

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Jemielniak, D., Koźmiński, A. K. (2012). Zarządzanie wiedzą, Wydawnictwo Wolters Kluwer Polska, Warszawa.
- [2] Jashapara A. (2014). Zarządzanie wiedzą. Polskie Wydawnictwo Ekonomiczne, Warszawa.

# SECONDARY LITERATURE:

- [1] Syed, J., Murray, P. A., Hislop, D., & Mouzughi, Y. (red.) (2018). The Palgrave handbook of knowledge management. Palgrave Macmillan.
- [2] Fazlagić, AJ. (2014). Innowacyjne zarządzanie wiedzą. Difin, Warszawa.
- [3] Becerra-Fernandez, I., Sabherwal, R. (2010). Knowledge management: Systems and processes. ME Sharpe Inc.. Armonk.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Alicja Balcerak; Alicja.Balcerak@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Controlling Name in English: Controlling

Main field of study (if applicable): Zarządzanie (Management)

Specialization (if applicable): -

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0038

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	60			60	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	2			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management and the fundamentals of accountancy.

## **SUBJECT OBJECTIVES**

- C1 To provide the students with the fundamental knowledge about the essence of controlling.
- C2 To provide the students with the knowledge about the functional and organizational solutions of controlling.
- C3 To provide the students with the knowledge about the essence of basic tools of controlling as well as the scope of their use.
- C4 Shaping and developing the ability of evaluation the achievements of the organization in conjunction of the implementation of controlling.
- C5 Shaping and developing the ability of evaluation and improvement of existing or designing new functional, organizational and instrumental solutions of controlling in chosen organization.
- C6 Shaping the competences of planning, initiating and implementing the changes in the organization.
- C7 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

#### SUBJECT LEARNING OUTCOMES

## relating to knowledge:

- PEU\_W01 Has a knowledge abort the essence of controlling. Understands the importance of restructuring processes related to the implementation of controlling in the organization.
- PEU\_W02 Knows the components and functions of controlling. Has a knowledge about the controlling concepts.
- PEU\_W03 Knows the organizational solutions of controlling, including the solutions relating to the controllers and responsibility centers . Knows the factors influencing the formation of organizational solutions of controlling.
- PEU\_W04 Has knowledge about the tools of controlling, including the controlling profit and loss account, budgeting, information and reporting system, methods of measurement and evaluation of organization performance.

#### relating to skills:

- PEU\_U01 Can evaluate the organization performance relating to the implementation of controlling.
- PEU\_U02 Can evaluate and improve the existing or design the new solutions of controlling relating to the concept of controlling, controllers (including them responsibilities, rights and liabilities) and responsibility centers.
- PEU\_U03 Can evaluate and improve the existing or design the new solutions of controlling relating to the chosen tools of controlling.

## relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

	PROGRAMME CONTENT				
	Lectures				
Lec 1	Introduction, overview of the lecture.	1			
Lec 2	The essence and the features of controlling. Concepts of controlling.	2			
Lec 3	Components and functions of controlling.	1			
Lec 3	Requirements for controlling implementation and functioning. Factors influencing the shape of solutions of controlling.				
Lec 4	Organization of controlling. Defining the controlling responsibility centers.	2			
Lec 5	Profit and loss account in controlling.	2			
Lec 6	Budgeting in controlling.	2			
Lec 7	Information and reporting system in controlling.	2			
Lec 8	Summary (controlling developement trends). Colloquium.	2			
	Total hours	15			
	Project	Number of hours			
	Proj 1 Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams. Distribution of the survey questionnaires and discussion on it. Detailed explanation of the task 1: the method of the general characteristics of the organization, including the method of presentation of basic information about the organization, its organizational structure, human potential, and identification of its environment.				

	TEACHING TOOLS USED	
	Total hours	15
Proj 7	Summary of project. Final assessment.	1
Proj 6-7	Presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
Proj 5	Explanation of the presentation of the project. The consultation of the task 4: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 4	Detailed explanation of the task 4: formation (b) or improvement (a) instrumental solutions of controlling for the chosen organization (including solutions relating to Profit and loss account in controlling, budgeting, information and reporting system in controlling and methods of measurement and evaluation of organization performance). The consultation of the task 3: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 3	Detailed explanation of the task 3: formation (b) or improvement (a) organizational solutions of controlling for the chosen organization (including solutions relating to the controlling concept, its organization and responsibility centers). The consultation of the task 2: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 2	Detailed explanation of the task 2: in the diagnosis of existing solutions of controlling in analyzed organization (for two situations: a) when controlling is implemented in the organization, and b) if controlling solutions are not implemented in the organization). Declaration of the chosen object. Consultation of the task 1: work in project teams - consulting the substantive issues, evaluation of student progress.	2

- N1. Traditional lecture with multimedia presentations
- N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation
  N6. A written report an analysis of the case study

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04	Colloquium.
F2	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Project of controlling solutions (written report).
F3	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Multimedia presentations relating to controlling solutions prepared by students
F4	PEU_U01, PEU_U02	Activity on the project. Participation in the discussion.

	PEU_U03, PEU_K01	
	PEU_K02, PEU_K03	
P(lecture)=F1		

P(project)=0.7\*F2+0.2\*F3+0.1\*F4

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Marciniak S., Controlling. Teoria, zastosowania, Difin, Warszawa 2008.
- Vollmuth H. J., Controlling. Planowanie, kontrola, kierowanie, Agencja Wydawnicza "Placet", Warszawa 2000.
- Nowosielski S. Centra kosztów i centra zysku w przedsiębiorstwie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2001.
- Goliszewski J., Controlling. Koncepcja, zastosowania, wdrożenie, Oficyna Wolters Kluwer business, Warszawa 2015.
- 5. Kuc B.R., Kontroling dla menedżerów, wyd. Helion, Gliwice 2011.
- Bieńkowska A., Kształtowanie rozwiązań i wzorce controllingu w organizacji, Oficyna Wydawnicza PWr, Wrocław 2015.

# SECONDARY LITERATURE:

- 1. Controlling w działalności przedsiębiorstwa, pod red. E. Nowaka, PWE, Warszawa 2004.
- 2. Sierpińska M., Niedbała B. Controlling operacyjny w przedsiębiorstwie, PWN, Warszawa 2003.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, <u>agnieszka.bienkowska@pwr.wroc.pl</u> in cooperation:

Anna Zabłocka-Kluczka, <u>anna.zablocka-kluczka@pwr.wroc.pl</u>

#### SUBJECT CARD

Name of subject in Polish: Design i zarządzanie procesami twórczymi

Name of subject in English: Design Management Main field of study (if applicable): Business

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0074

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade*			crediting with grade*	
For group of courses mark final course with (X)					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essential knowledge of management

#### SUBJECT OBJECTIVES

- C1. Gaining knowledge about industrial design, design thinking and creative processes management
- C2. Developing design thinking skills
- C3. Developing design management skills

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Ability to define and explain the role of design thinking and design management in competitive advantage creation

PEU\_W02 Understanding of the methods and techniques used in creative management relating to skills:

PEU\_U01 Ability to plan and execute the design thinking process

PEU\_U02 Ability to use the creative method in business problem solving

relating to social competences:

PEU\_K01 Ability to work in groups

PEU\_K02 Acknowledging the role of aesthetics, ethics and ecology in social and business environment.

	PROGRAM CONTENT	
	Lectures	
Lec 1	Introduction to business aesthetics	1
Lec 2	Design	2
Lec 3	Design Thinking	2
Lec 4	Design Thinking methods	2
Lec 5	Creative processes management	2
Lec 6	Design Management	2
Lec 7	Eco design	2
Lec 8	Test	2
	Total hours	15
	Project	Number of hours
Proj 1	Introduction	1
Proj 2	Exploration	2
Proj 3	Identification	2
Proj 4	Ideation	2
Proj 5	Experimenting	2
Proj 6	Testing	2
Proj 7	Evolution	2
Proj 8	Final assessment	2
-	Total hours	15
	TEACHING TOOLS USED	
	ormative lecture altimedia presentation	

- N3. Problem based lecture
  N4. Design
  N5. Group work
  N6. Discussion

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1 (lecture)	PEU_W01, PEU_W02, PEU_K02	test
F1 (project)	PEU_U01, PEU_U02, PEU_K01, PEU_K02	discussion
F2 (project)	PEU_U01, PEU_U02, PEU_K01, PEU_K02	project
P2 (project) = $0.5*F$	F1+0.5*F2	

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Kathryn Best, Design Management. Zarządzanie Strategią, Organizacją Procesu Projektowego i Wdrażaniem Nowego Produktu, PWN, 2009
- [2] Design Management. Zarządzanie wzornictwem, Instytut Wzornictwa Przemysłowego, 2010
- [3] Kreowanie zachowań innowacyjnych, przedsiębiorczych i twórczych w edukacji inżyniera / pod red. Jana Skoniecznego, Indygo Zahir Media, 2011

# SECONDARY LITERATURE:

- [1] Richard Morris, Projektowanie produktu, PWN, 2009
- [2] Alex Simonson, Estetyka w marketingu, Wydawnictwo Profesjonalnej Szkoły Biznesu, 1999

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Dzidowski, adam.dzidowski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Fizyka Środowiska Pracy II Name of subject in English: Work Environment Physics II

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0029W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠				

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic mathematical and statistical skills (verified by maturity exam or higher).

A course in physics (or equivalent) completed at 1<sup>st</sup> level of studies.

#### SUBJECT OBJECTIVES

- C1: Acquisition of specialist knowledge of the physical factors of the work environment affecting the employee, necessary in processes of manufacturing and human resource management.
- C1.1: Gaining knowledge of the physical aspects of the work environment: the reasons for the impact of physical factors on the employee, how they interact, potential psychophysical effects and ways to minimize their negative impact.
- C1.2: Acquiring knowledge about the ergonomic optimization of working conditions using chosen methods and tools for measuring, assessment and design the physical work environment, taking into account the physical, sensory and mental capabilities and limitations of the employee.

#### SUBJECT LEARNING OUTCOMES

In the field of knowledge:

PEU\_W01: student knows the individual physical factors of the work environment; knows for what reasons (physical, anatomical, physiological, psychological) and how

they affect people in the work process.

PEU\_W02: student knows the chosen methods and tools for measuring and assessing these factors, as well as for designing and optimizing the physical work environment in accordance with an ergonomic approach.

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction. Physical work environment as part of the human-machine- environment system. Review of physical factors affecting man in the work process. An ergonomic approach in the design and assessment of the working environment.	2
Lec 2	Microclimate. Thermodynamics of the human body. Effects of thermal homeostasis disorder. Thermoregulatory mechanisms of physical and biochemical nature. Thermal insulation parameters of clothing as a barrier between man and thermal environment. Microclimate evaluation methods.	2
Lec 3	Lighting. Structure of the eye's optical path. Signal processing by the neural system. Characteristics of perception of brightness, color and geometric patterns. Requirements related to ensuring appropriate conditions for visual work. The use of color models in the design of the visual environment.	2
Lec 4	Noise. Hearing structure and its influence on hearing ability. Perception of pitch and loudness of sound as examples of phenomena subject to Weber-Fechner and Stevens laws. Noise as a harmful factor and stressor; physiological and psychological effects of being in noise. Organizational and technical measures to minimize exposure to noise in the workplace.	2
Lec 5	Spatial relations between a man and the workplace. Impact of mismatch of the position to the anthropometric features of the employee on the enforcement of body posture in biomechanical terms. Location of signaling and control devices. Application of Fitts law in human-machine interface design.	2
Lec 6	Methodology of researching the impact of the physical work environment on humans. 1. Psychophysical approach in measuring the subjective perception of physically measurable stimuli. The use of questionnaire methods and AHP approach in research and measurement of a subjective nature.	2
Lec 7	Methodology of researching the impact of the working environment on humans. 2. Designing a factor experiment. Application of statistical methods in data analysis.	2
Lec 8	Final test	1
	Total hours	15

# N1. Lecture with slides and multimedia materials

- N2. Consultations
- N3. Own student work independent literature studies and preparation for the final test

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

· E	Learning outcomes number	Way of evaluating learning outcomes achievement
,	PEU_W01	Written final test
	PEU_W02	
С		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [2] Halliday D., Resnick R., Walker J., Podstawy fizyki, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [3] Hecht E., Optyka, Wydawnictwo Naukowe PWN, Warszawa 2012
- [4] Jaroszyk F. (red.), Biofizyka, Wydawnictwo Lekarskie PZWL, Warszawa 2014
- [5] Jóźwiak J., Podgórski J., Statystyka od podstaw, Polskie Wydawnictwo Ekonomiczne, Warszawa 2012
- [6] Koradecka J. (red.), Bezpieczeństwo pracy i ergonomia, t. 1 i 2, Centralny Instytut Ochrony Pracy, Warszawa 1999
- [7] Materiały dla studentów na stronie Laboratorium Ergonomii Wydziału Informatyki i Zarządzania PWr, http://ergonomia.ioz.pwr.edu.pl/
- [8] Ozimek E., Dźwięk i jego percepcja. Aspekty fizyczne i psychoakustyczne, Wydawnictwo Naukowe PWN, Warszawa 2002
- [9] Proctor R.W., Van Zandt T., Human factors in simple and complex systems. Second edition, CRC Press, 2008
- [10] Taylor J.R., Mechanika klasyczna, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [11] Traczyk W.Z., Trzebski A. (red.), Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej, Wydawnictwo Lekarskie PZWL, Warszawa 2015
- [12] Wykowska M., Ergonomia jako nauka stosowana, Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2009

# SECONDARY LITERATURE:

- [1] Alton Everest F., Pohlmann K.C., Podręcznik akustyki, Wydawnictwo Sonia Draga, Katowice 2013
- [2] Bell P.A., Greene T.C., Fisher J.D., Baum A., Psychologia środowiskowa, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2004
- [3] Brzeziński J., Metodologia badań naukowych i diagnostycznych [w:] Psychologia. Podręcznik akademicki, t. 1: Podstawy psychologii, Strelau J. (red.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000
- [4] Internetowy Podręcznik Statystyki, StatSoft, http://www.statsoft.pl/textbook/
- [5] Jorasz U., Wykłady z psychoakustyki, Wydawnictwo Naukowe UAM, Poznań 1998
- [6] Kabza Z., Kostyrko K., Metrologia mikroklimatu pomieszczenia i środowiskowych wielkości fizycznych. cz. 1 i 2, Oficyna Wydawnicza Politechniki Opolskiej, Opole 2003/2004
- [7] Karwowski W. (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis, 2001
- [8] Malinowski A., Bożiłow W., Podstawy antropometrii. Metody, techniki, normy, Wydawnictwo Naukowe PWN, Warszawa 1997
- [9] Młodkowski J., Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN, Warszawa 1998
- [10] Rejmer K., Ciepło zimno czyli termodynamika fenomenologiczna, Wydawnictwo Sorus, Poznań 2013
- [11] Śliwowski L., Mikroklimat wnętrz i komfort cieplny ludzi w pomieszczeniach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2000

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Jach, katarzyna.jach@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Instytucjonalne i finansowe instrumenty wsparcia

innowacyjności w przedsiębiorstwie i gospodarce

Name of subject in English: Institutional and financial instruments for support

innovation of enterprise and economy Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0096

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7	0.7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about:

- microeconomics,
- macroeconomics,
- the EU institutions,
- business finances.

#### **SUBJECT OBJECTIVES**

- C1 Broadening Economic Schools knowledge (regional development theories) as well as instruments supporting entrepreneurship and regional development.
- C2. Teaching students about chosen legal terms, institutions and organizational—and—structural forms in the national level and in some integration groups to supporting the development of entrepreneurship.
- C3 Teaching students about chosen regulations and norms of the institutional and financial support as public aid in Poland and the EU.
- C4 Teaching skills to find proper information about the institutional and financial support for

enterprise as well as proper regulations related to it.

C5 Teaching skills to interpret studied legal regulations connected with the institutional and financial support and to calculate potential effects related to the implementation of the abovementioned support instruments in company.

- C1 Broadening Economic Schools knowledge (regional development theories) as well as implementation of concept of chosen Economic Schools in the business practice to initiate economy development on the basis of knowledge-based economy and to boost the development of information society.
- C2 Teaching students about chosen instruments of interventionism within economy policy realization on the national level and economic groups level.
- C3. Teaching students about chosen legal terms, institutions and organizational—and—structural forms in the national economy and in some integration groups. Presenting effects of the institutions on the innovativeness and competitiveness of enterprises and of economy.
- C4 Teaching students about chosen regulations and norms of the institutional and financial support in terms of state aid in Poland and the EU.
- C5 Teaching students about stimulation methods of development, entrepreneurship, innovation in enterprise and economy as well as about institutions which are responsible for planning and implementing support tools for innovation and entrepreneurship on the national and union levels. Characterizing chosen instruments of the institutional and financial support.
- C6 Teaching skills to find proper information about the institutional and financial support for enterprise as well as proper regulations related to it.
- C7 Teaching skills to interpret studied legal regulations connected with the institutional and financial support and to calculate potential effects related to the implementation of the abovementioned support instruments in company.
- C8 Teaching skills to analyze project critically, including intervention logic to find proper support source.
- C9 Teaching skills to write a project in terms of institutional or financial support tools.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

A student should:

PEU\_W01 know about the chosen economic schools and their proposal of instruments of economic interventionism,

PEU\_W02 have extended business policy knowledge supporting development of enterprise and innovativeness in economy and company; know instruments used in the institutional and financial support,

PEU\_W03 know evolution directions of supporting instruments on the example of Poland and the European Union.

PEU\_W04 know effects of the institutional and financial support for economy and company.

. . .

relating to skills:

A student should:

PEU\_U01 understand and be able to use theoretical knowledge about the institutional and financial support instruments to select proper sources of support for analyzed investment project,

PEU\_U02 be able to find and to interpret information related to possibilities of receiving the institutional and financial support for enterprise and economy,

PEU\_U03 be able to point out potential effects of using the institutional and financial support for enterprise and economy.

PEU\_U04 be able to conduct basic analysis of project to gain the institutional or financial support PEU\_U05 be able to write chosen parts of application form.

. . .

relating to social competences:

A student should:

PEU\_K01 understand necessity of independent and continuous process of broadening their knowledge about the institutional and financial support; be ready to seek the knowledge and to study it individually.

PEU\_K02 be able to foresight results of taken decisions.

PEU\_K03 be prepared to initiate changes in an enterprise in terms of possibilities to use additional support as well as to plane and to introduce these changes; ; be able to think and act in entrepreneurial way and be able to judge economic choices according to the economic account,

PEU\_K04 be able to present and justify their opinions by using correct interpretation of known regulations addressed to economy policy.

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Organizational lesson.	1
Lec 2	Economic theories of regional development. Functions, aims and range of domestic and international policy of economy to support innovation and entrepreneurship in economy. Basic directions and regulations in Poland and the EU.	3
Lec 3	Programming and planning of development directions – foresight research	2
Lec 4	Public aid: aims, range and limitations. Fundamental principles of public aid addressed to private entities.	2
Lec 5	Direct and indirect instruments of financial support for innovation and entrepreneurship.	2
Lec 6	Financial support instruments. Eurofunds – their review and characteristic according to ability to raise capital. National and common programmes to support innovation and entrepreneurship in economy and company – Classification and characteristic.	2
Lec. 7	Basic legal regulations for granting support for enterprises - national and EU regulations.	2
Lec. 8	Written test	1
	Total hours	15
	Classes	Number of hours
Cl 1	Organizational lesson.	1
C1 2	Domestic and the EU directions and strategy documents addressed to support of entrepreneurship and innovation. Characteristics of aims and scope of support, including direct co-funding. Basic legal regulations in this field – extensive explanation of the terms presented on the lecture.	2
C1 3	Programmes and initiatives addressed to enterprises and business support institutions to improve innovativeness and business support for development in economy – review.	2
Cl 4	Revolving financial instruments as support tool of innovation and entrepreneurship. Characteristics, scope of use, micro- and macroeconomic effects.	2

Cl 5	Project and company eligibility for acquisition of financial support. Characteristics of criteria for chosen types of projects and chosen support sources.	2
Cl 6	Project characteristic according to type and source of support – practice "My project"	2
Cl 7	Logical matrix of project – characteristics –practice "My business". Financial sources –financial assembly of project – practice "My business".	1
Cl 8	Source of funding – financial assembly of the project - practice "My business".	2
Cl 9	Credit - presentations of selected student works	1
	Total hours	15

#### TEACHING TOOLS USED

#### Lectures

- N1. Information lecture
- N2. Multimedial presentation
- N3. Problem lecture

Classes

- N4. Doing exercises and solving problems (case study)
- N5. Discussion
- N6. Presentations prepared by students
- N7. Homework related to "My project"
- N8. Self-preparation to the classes

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01÷PEU_U05 PEU_K01, PEU_K02 PEU_K04	Activeness and self-work during classes.
F2	PEU_U01÷PEU_U05, PEU_K01÷PEU_K04	Marks related to the homework "My project".
F3	PEU_W01÷PEU_W04, PEU_U01÷PEU_U05	Marks related to presentation addressed to chosen problems during classes.
F4	PEU_W01÷PEU_W04	Written test

P (lecture) = F4

P (classes) = 0.2\*F1+0.5\*F2+0.3\*F3

## PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Fundusze UE 2014-2020. Nowa perspektywa nowe możliwości, pr. zb. pod red. M. Gwizdy, M. Kosewskiej-Kwaśny, Sz., Żółcińskiego, Wyd. C.H. Beck Wydawnictwo Polska, Warszwa 2014.
- [2] Kasprzak R., Fundusze unijne. Szansa na rozwój małych i średnich przedsiębiorstw. Budżet na lata 2014-2020. Wyd Helion, Gliwice 2016.
- [3] Kasprzak W.A., Pelc K. I., Innowacje strategie techniczne i rozwojowe, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2012.
- [4] Lech M., Jak prawidłowo rozliczyć projekt realizowany w ramach Funduszy Europejskich 2014-2020, Wyd. Ośrodek Doradztwa i Doskonalenia Kard, 2016.

#### SECONDARY LITERATURE:

[5] Jasiński A.H., *Innowacyjność w gospodarce Polski. Modele, bariery, instrumenty wsparcia*, Wyd. Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2014.

- KarwatowiczG., Sebzda-Załuska J., Realizacja projektów infrastrukturalnych w ramach perspektywy UE 2014-2020, Wyd. PRESSCOM, 2016.
- [7] Jeleń I., Prawo zamówień publicznych. Interpretacje porady komentarze rekomendacje, Wyd. Wiedza i Praktyka, 2018. [8] Aktualne akty prawne i podręczniki beneficjenta.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, edyta.ropuszynska-surma@pwr.wroc.pl

\*delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Internacjonalizacja działalności przedsiębiorstwa Name of subject in English: Internationalization of Company Activities

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0097

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠	0,7			

<sup>\*</sup>delete as applicable

#### PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student knows basic definitions, economic laws and relations in microeconomics and macroeconomics. Knows the basic institutions, their objectives and functions in national economy. Knows economic and legal regulations in national economy, European union economy and global economy.
- 2. Student understands basic laws which regulate creating and functioning of economic organizations. Knows and understands basic concepts and rules for protection of industrial property and copyright.

# **SUBJECT OBJECTIVES**

- C1- presentation of internationalization phenomenon, internationalization theory, strategy, the forms of internationalization, methods of evaluation in relation to SMEs.
- C2 analysis of enterprises functioning on foreign markets in such areas as competitiveness, contracts and transactions, brand management, quality policy.
- C3 presentation of forms of settlement of foreign transactions, securing the transactions, business fees, types of risks related to this type of activity.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 Has knowledge of internationalization of small and medium entrepreneurships.

PEU\_W02 Knows the principles of functioning company on the international market and understands the nature of foreign trade.

relating to skills:

- PEU\_U01 Able to assess legal and market conditions and able to prepare for conducting commercial transaction.
- PEU\_U02 Able to select the right form of business activity regarding to economic and legal environmental conditions.
- PEU\_U03 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). (K2\_ZARZ\_U18)

relating to social competences:

- PEU\_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. (K2\_ZARZ\_K01).
- PEU\_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. (K2\_ZARZ\_K02).

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Essence and role small and medium entrepreneurships in national economy, barriers of development and ways of supporting SMEs in European Union	2
Lec 2	Basic terms refer to internationalization of business activity, internationalization theory, internationalization strategy, evaluation of internationalization and the forms of internationalization of SMEs	2
Lec 3	International competitiveness of SMEs' sector, presence of Polish enterprises on the foreign markets, choosing the best market, choosing potential partners.	2
Lec 4	The preparation process and course of foreign trade transactions.  The definition of contract and his role in foreign trade transactions.	2
Lec 5	The brand management by SMEs on foreign markets. The quality policy in SMEs, quality requirements and access to foreign markets.	2
Lec 6	Settlement of foreign transactions: payment instruments, payment security features, custom duties on trade in goods, VAT and excise duty.	2
Lec 7	Forms of supporting exporters in SMEs' sector, with special emphasis on non-financial forms. Risks and insurance of goods in international trade.	2
Lec 8	Final test	1
	Total hours	15
	Classes	Number of hours
Cl 1	Analysis of economics problems related to internationalization of SMEs and transactions in international trade – problematic discussion	6
Cl 2	Papers prepared by students - writing form and oral presentation of the papers (multimedia presentation)	8
C1 3	Discussion summarizing analysed case studies	1
	Total hours	15

TEACHING TOOLS USED

# Lecture:

N1 – information lecture,

N2 – multimedia presentation,

N3 – problematic lecture.

Class:

N4 – analysis of selected problems, problematic discussion,

N5 - papers – oral presentation (eg. using Powerpoint), and writing form

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W1, PEU_W2	final test
F1	PEU_U1, PEU_U2, PEU_U3	activity during classes, taking part in problematic discussion
F2	PEU_U1, PEU_U2, PEU_U3	writing form of the paper
F3	PEU_U1, PEU_U2, PEU_U3	oral presentation of the paper

Lecture: P1

Class: P2 = 0.2\*F1 + 0.4\*F2 + 0.4\*F3

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Bernaś B. (red.) Międzynarodowe transakcje ekonomiczne, DIFIN 2002.
- [2] Białecki K., Operacje handlu zagranicznego, PWE, Warszawa 2002.
- [3] Breza M., Miedzynarodowe transakcje gospodarcze, wyd. WSCIL 2009.
- [4] Misala J., Międzynarodowa konkurencyjność gospodarki narodowej, PWE, Warszawa 2011.
- [5] Rymarczyk J., Handel zagraniczny- organizacja i technika, PWE, Warszawa 2005.
- [6] Stępień B. (red.), Handel zagraniczny. Poradnik dla praktyków, PWE, Warszawa 2007.
- [7] Treder H. (red.), Podstawy handlu zagranicznego, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2005.

## SECONDARY LITERATURE:

- [1] Baranowska-Prokop E., Transakcje wiązane w handlu międzynarodowym, Difin, Warszawa 2003.
- [2] Bednarczyk T. H., Instrumenty wspierania eksportu. Kredyty i ubezpieczenia, Wyd. Naukowe PWN, Warszawa 2000,
- [3] Bednarz J., Gostomski E, Działalność małych i średnich przedsiębiorstw na rynkach zagranicznych, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2009
- [4] Białecki K. P., Januszkiewicz W., Oręziak L., Leksykon handlu zagranicznego, PWE, Warszawa 2007.
- [5] Białecki K. P., Kaczmarek T. T., Eksportowa działalność małych i średnich przedsiębiorstw. Od przygotowania do realizacji transakcji eksportowej, Difin, Warszawa 2008.
- [6] Blajer A., Międzynarodowe reguły handlowe. Zasady i praktyka stosowania. Incoterms 2000, ODDK, Gdańsk 2000.
- [7] Gostomski E., Handel wiązany w gospodarce światowej, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2004.
- [8] Jeliński B., Polityka współpracy gospodarczej z zagranica, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2009,
- [9] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Wydawnicza Branta, Bydgoszcz –

- Warszawa 2005.
- [10] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Wydawnicza Branta, Bydgoszcz Warszawa 2005.
- [11] Kozioł W. (red.), Handel zagraniczny. Operacje, rozliczenia, regulacje, Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2004.
- [12] Rynarzewski T., Strategiczna polityka handlu międzynarodowego, PWE, Warszawa 2007.
- [13] Stępień B. (red.), Transakcje handlu zagranicznego, PWE, Warszawa 2004.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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\*delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Komunikacja w organizacji Name of subject in English: Organizational communication

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0101

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1 Familiarizing students with the basic issues related to communication in the organization
- C2 Providing students with tools to assess the effectiveness of communication in the organization
- C3. Creating the opportunity to solve problems and group work together

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Student knows the basic terms and elements related to communication in the organization
- PEU\_W02 Student knows the tools used to identify and evaluate communication in the organization

relating to skills:

- PEU\_U01 Student is able to construct tools for identifying and diagnosing the state of communication in the organization
- PE<u>U\_U02</u> Student is able to propose changes in communication based on a diagnosis of its condition

relating to social competences:

PEU\_K01 Student is able to set priorities in own work and in cooperation with others

PEU\_K02 Student is able to cooperate and work in a group

PEU\_K03 Student demonstrates courage in communicating and defending one's views. He is prepared to convince and negotiate in the name of achieving common goals

PROGRAM CONTENT  Lectures			
Lec 1	Introduction to the subject. Course information and organizational matters	1	
Lec 2	Interpersonal and group communication	2	
Lec 3	Communication in the organization and its culture	2	
Lec 4	Communication behavior styles and management styles	2	
Lec 5	Internal communication - tools, goals, barriers, methods of testing internal communication	2	
Lec 6	Organizational external communication and crisis communication.	2	
Lec 7	Communication practice; organization of meetings, meetings and conferences	2	
Lec 8	Final test and summary	2	
	Total hours	15	
	Total hours		
	Seminar	Number of hours	
Sem 1	Introduction, organizational matters	1	
Sem 2	Group communication, communication within the organization	2	
Sem 3	Leaders and their styles of action and communication	2	
Sem 4	Communication in crisis situations. Image crises	2	
Sem 5	Auditing tools; interview, observation, content analysis	2	
Sem 6	Audit tools: questionnaire surveys - survey, structured interview	2	
Sem 7	Presentation and analysis of student reports	2	
Sem 8	Presentation and analysis of student reports	2	
	Total hours	15	

# TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works
- N6. Presentation of reports prepared by students

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

ı	Evaluation (F – forming	Learning outcomes	Way of evaluating learning outcomes
	(during semester), P –	number	achievement
	concluding (at semester end)		
	i i i i i i i i i i j daning ciasses	PEU_W01- PEU_W02 PEU_U01	Oral feedback

	PEU_K01-PEU_K02	
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEK_K02	Oral feedback. Work evaluation
GD	1 ' 1' '	1 ' ' C.1

C Report on students' own analysis regarding internal or external communication of the organization; knowledge test

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Cornelissen J., (2012) *Komunikacja korporacyjna. Przewodnik po teorii i praktyce*, Warszawa: Wolters, Kluwer
- 2. Hamlin, S.,(2008) Jak mówić, żeby nas słuchali Poznań: Rebis
- 3. Brzezińska, E., Paszkowska-Rogacz, A. (2009) Człowiek w firmie Warszawa: Difin SA

# SECONDARY LITERATURE:

- 1. Olędzki, J., Tworzydło, D.(ed) *Leksykon Public Relations* Rzeszów: Wydawnictwo Newsline Sp.& Bonus Liber Sp. z o. o.
- 2. Stępowski R. (2016) Komunikacja marketingowa 2030. Technologiczna rewolucja i mentalna ewolucj
- 3. Decker, B. (2010) Wystąpienia publiczne. Trening dla menedżerów. polityków i ekspertów PR

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Koncepcje zarządzania Name of subject in English: Management concepts Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0030

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			60	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			2	1
including number of ECTS points for practical (P) classes				2	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

## 1. Principles of management

#### **SUBJECT OBJECTIVES**

The acquisition of basic knowledge, taking into account aspects of application, about:

- C1. schools and approaches in the organization and management theory,
- C2. methods used in the management,
- C3. management concepts,
- C4. effectiveness of the organization.

The acquisition of basic skills about:

- C5. identification of management problems and issues in the organization,
- C6. formulation and matching solutions for the management and substantive issues in the organization,
- C7. analysis and evaluation of selected characteristics of the organization.

#### SUBJECT LEARNING OUTCOMES

## relating to knowledge:

- PEU\_W01 has a basic knowledge of schools and approaches in organization and management theory
- PEU\_W02 has extended knowledge of the methods used in the management
- PEU\_W03 has expanded the knowledge of management concepts
- PEU W04 can identify the basic problems of management
- PEU\_W05 has a basic understanding of the concept of organizational efficiency

## relating to skills:

- PEU\_U01 at a basic level can choose, justify and apply the methods and techniques to identify, analyze and solve complex management problems and issues in the organization
- PEU\_U02 at a basic level can formulate solutions to complex management problems and issues in the organization
- PEU\_U03 at a basic level can analyze and evaluate the objectives, features and elements of the organization
- PEU\_U04 is able to identify and analyze common problems of management

# relating to social competences:

- PEU\_K01 is aware of the need to develop knowledge and skills in the organization and management science
- PEU\_K02 is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations
- PEU\_K03 is prepared to communicate, persuade and defend his views

#### PROGRAM CONTENT Number of Lectures hours The idea of management concepts and methods. The role and shortcomings 2 Lec 1 of to ols. The practical suitability of management concepts and methods. The scientific management: its precursors, scientific organization of work, 2 Lec 2 typical management methods. Administrative management theory school: Henri Fayol and classical 2 Lec 3 organization theory, theory of bureaucracy - the concept of the ideal type of organization. Methods of administrative management theory school. Human relations. Management methods used in human relations approach. Lec 4 2 System theory: The concept of the system, the hierarchy of systems. Lec 5 Systemic point of view. The organization as an open system. Management methods used in a systems approach. Contingency theory. Management methods used in the contingency theory. 2 Lec 6 2 The new wave in management. Management methods used in the new Lec 7 wave.

Lec 8	Lean management	2
Lec 9	Business Process Reengineering	2
Lec 10	Time Based Management	2
Lec 11	Benchmarking	2
Lec 12	Outsourcing	2
Lec 13	Organizational learning	2
Lec 14	Network organization	2
Lec 15	Virtual organization	2
	Total hours	30
	Project	Number of hours
Proj 1	Identification of the method used in the chosen company.	2
Proj 2	Description of theoretical assumptions of the identified method.	2
Proj 3	Description of the identified management method in business practice - goals of the organization.	2
Proj 4	Description of the identified management method in business practice - the structure of the organization.	2
Proj 5	Description of the identified management method in business practice - the social subsystem of the organization.	2
Proj 6	Description of the identified management method in business practice - technology in the organization.	2
Proj 7	Improvement proposals	2
Proj 8	Presentation	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Scientific management	2
Sem 2	Administrative approach, human relations approach	2
Sem 3	System approach	2
Sem 4	A situational approach	2
Sem 5	New Wave in management	2
Sem 6	Lean management	2
Sem 7	Process approach	2
Sem 8	Time based management	1
	Total hours	15

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-analysis and evaluation of selected aspects of the organization
- N5. Self-study: classes preparation and final assessment preparation
- N6. Project prepared by students

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P		Assessment of developed solutions regarding the analysis and evaluation of the chosen organization
Р	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_W05	Examination

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Błaszczyk W., Metody organizacji i zarządzania, Wydawnictwo Naukowe PWN, Warszawa 2005
- [2] Brzozowski M., Kopczyński T., Metody zarządzania, Wydawnictwo UE w Poznaniu, Poznań 2009.
- [3] Czekaj J., Metody organizacji i zarządzania, Wydawnictwo AE w Krakowie, Kraków 2007.
- [4] Hopej M., Struktury organizacyjne, Ossolineum, Wrocław Warszawa Kraków 2004.
- [5] Zimniewicz K., Współczesne koncepcje i metody zarządzania, PWE, Warszawa 1999.

# **SECONDARY LITERATURE:**

- [1] Koźmiński A.K., Piotrowski W. (red.), Zarządzanie. Teoria i praktyka, Wydawnictwo Naukowe PWN, Warszawa 2006
- [2] Brilman J., Nowoczesne koncepcje i metody zarządzania, PWE, Warszawa 2002.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Marketing innowacji

Name of subject in English: Marketing towards innovations

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, innovations and projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0078

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			60	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	1			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge about Essentials of enterprise management
- 2. Knowledge about basics of marketing

# **SUBJECT OBJECTIVES**

- C1 Achieving the experiences about innovation activity and its role in modern organizations
- C2 Familiarity with phases of innovation process, especially with implementing and commercialisation
- C3 Acquire the knowledge about manners of innovation diffusion and estimation the transfer possibilities.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Students know the methods of stimulation and supporting the innovation among individuals, groups and organizations
- PEU\_W02 Students have wide knowledge about structures and institutions that support innovations and entrepreneurship

relating to skills:

- PEU\_U01 Student can individually identify and estimate at organization the possibilities of upgrading quality and implementing innovations.
- PEU\_U02 Student can use advanced methods of management at all project life cycle phases,

especially: start business activity, preparing changes, implementing innovations.

PEU\_U03 Can indicate institutional supporters for innovations and entrepreneurship and prepare apply program

relating to social competences:

PEU\_K01 Students are prepared to initiate, planning and implementing organizational changes.

Ability to predict multidirectional results of adopted changes. Students can think and function like entrepreneur.

	PROGRAMME CONTENT			
	Lectures			
Lec 1	Introduce to innovation activity	2		
Lec 2	Presenting the phases of innovation process	2		
Lec 3	Diffusion an innovation transfer	2		
Lec 4	Commercialization the innovations	2		
Lec 5	Marketing approach in process of distributing innovation	2		
Lec 6	Marketing instruments and techniques in support the innovation activity	2		
Lec 7	Estimation the effectiveness of marketing at innovation activity	2		
Lec 8	Written test	1		
	Total hours	15		
	Project	Number of hours		
Proj 1	Methodology of project realization	2		
Proj 2	Indicate a main subject of a project, characterization the problems and methods of gathering then information	2		
Proj 3	Specify the phases of realization the project (characterization the firm's innovation needs, diagnose of firm's innovation capacity)	2		
Proj 4	Discussion the project realization phases	2		
Proj 5	Preliminary estimation of adopted innovation results	2		
Proj 6	W Estimation the marketing methods that support innovations	2		
Proj 7	Preliminary estimation –proposals of corrections	2		
Proj8	Final estimation of projects	1		
	Total hours	15		
	TEACHING TOOLS USED			

# N1. Informational lecture

- N2. Multimedia presentations
- N3. Detailed lecture

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
P	PEU_W01 PEU_W02	Written test

P	PEU_U01 PEU_U02 PEU_U03	Written report
C		

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Tidd j., Bessant J., Zarządzanie innowacjami Integracja zmian technologicznych, rynkowych i organizacyjnych, Oficyna Wolters Kluwer business, Warszawa 2011
- [2] Wrzosek W., Strategie Marketingowe, PWE Warszawa 2012
- [3] Żebrowski M., Waćkowski K., Strategiczne zarządzanie innowacjami, Diffin, Warszawa 2011.

## SECONDARY LITERATURE:

[1] The Oxford Handbook of Innovation, Oxford University Press 2005

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Świda, e-mail - adam.swida@pwr.edu.pl

## SUBJECT CARD

Name of subject in Polish: Metody doskonalenia jakości procesów

Name of subject in English: Methods of Processes Quality Improvements

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0109W

Group of courses: NO\*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	90				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	3				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4				

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of the fundamentals of quality management and process management.

## SUBJECT OBJECTIVES

C1 Acquisition of extended knowledge of the methods of improving the quality of business processes.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student knows the methods of design, analysis, modelling, evaluation and improvement of business processes.

# PROGRAM CONTENT

	Lectures	Number of hours
Lec 1	Introduction to the lecture. Basic terms.	2
Lec 2	Innovation and methods of improving production and service processes.	2
Lec 3	Methods of determining processes' quality needs. Kano method.	2
Lec 4	Review of methods of designing and improving a process structure.	2

Lec 5	Classic techniques supporting the analysis and improvement of organization processes (Classic techniques of quality improvement).	2
Lec 6	Methods of assessing the risk of defects in the process: PFMEA method.	2
Lec 7	New techniques of quality improvement and their practical applications.	2
Lec 8	Application of the Quality Function Development (QFD) method in processes improvement.	2
Lec 9	New Quality Function Development method for services.	2
Lec 10	Methods of service quality assessment: SERVQUAL method.	2
Lec 11	Methods of service quality assessment: CSI, Mystery shopping.	2
Lec 12	Methods of service quality assessment: CIT and others.	2
Lec 13	Implementations of the methods presented at the lecture. Lecture summarization.	2
Lec 14	Final test.	2
Lec 15	Final test -correction.	2
	Total hours	30
	TEACHING TOOLS USED	
	aditional lecture - presentation using a slide projector. vn work - independent literary studies and preparation for a credit test.	

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01	Test
C=F1		

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Materials posted on the lecturer's website (ePortal).
- [2] Dobrowolska A., Podejście procesowe w organizacjach zarządzanych przez jakość, Poltext, Warszawa 2017.
- [3] Hamrol A. Zarządzanie jakością z przykładami, PWN, Warszawa 2013.
- [4] Łuczak J., Matuszak-Flejszman A., *Metody i techniki zarządzania jakością: kompendium wiedzy* Quality Progress®, Poznań 2007.

## SECONDARY LITERATURE:

- [1] Fertsch M. (red), Grzybowska K. (red), Stachowiak A. (red), *Logistyka i zarządzanie produkcją: narzędzia, techniki, metody, modele, systemy*, Politechnika Poznańska. Instytut Inżynierii Zarządzania, Poznań 2008.
- [2] Hamrol A., Strategie i praktyki sprawnego działania: lean, six sigma i inne, Wydawnictwo Naukowe PWN, Warszawa 2015.
- [3] Komorowski J., Moczydłowska J., *Innowacyjne metody i techniki zarządzania w przedsiębiorstwie*, Wyższa Szkoła Finansów i Zarządzania, Białystok 2009.
- [4] Konarzewska-Gubała E. (red.): *Zarządzanie przez jakość, koncepcje, metody, studia przypadków,* Wydawnictwo Akademii Ekonomicznej we Wrocławiu, Wrocław, 2003.
- [5] Łazicki A. (red.), Systemy zarządzania przedsiębiorstwem: techniki Lean Management i Kaizen. Wiedza i Praktyka, Warszawa 2011.
- [6] Rummler G.A., Brache A.P., *Podnoszenie efektywności organizacji: Jak zarządzać "białymi plamami" w strukturze organizacyjnej?* Państwowe Wydawnictwo Ekonomiczne, Warszawa 2000.

- [7] Szczepańska K., Zarządzanie jakością: koncepcje, metody, techniki, narzędzia, Wydawnictwo Politechniki Warszawskiej, Warszawa 2015.
- [8] Zymonik Z., Hamrol A., Grudowski P., Zarządzanie jakością i bezpieczeństwem, PWE, Warszawa 2015.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Dobrowolska, anna.dobrowolska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Międzynarodowe transakcje ekonomiczne Name of subject in English: International Economic Transaction

Main field of study (if applicable): MANAGEMENT

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0091

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has the basic knowledge about micro and macro economy
- 2. Student has the basic knowledge about functioning of the market and market mechanism.
- 3. Student is able to prepare to the lectures.

## **SUBJECT OBJECTIVES**

C1: get knowledge of functioning of the international markets, with emphasis on circumstances and regulations of customs tariff policies

C2: get basic knowledge of foreign trade, customs tariff policies, and trade formulas (INCOTERMS 2010, RAFTD), customs procedures.

C3: get knowledge of documents used in the foreign trade.

C4: Get and develop social skills which enable successful team work

	SUBJECT LEARNING OUTCOMES		
	Related to knowledge:		
PEU_W01	Student has knowledge of functioning of international markets.		
PEU_W02	Student knows the Basic legal regulations of customs policies.		
PEU_W03	Student knows the Basic procedures of making the economic transaction.		
PEU_W04	Student understands how to prepare the economic transaction. He can prepare the project of the contract, he know the contract elements, he know the basic contract cases and trade formulas INCOTERMS 2010		
PEU_W05	Student has the basic knowledge of the customs tariff Policies.		
	Related to skills:		
PEU_U01	Student can prepare himself to make an economic trans action. He can evaluate the legal circumstances and rules and choose the accurate kind of trade formulas to the legal and economic circumstances.		
PEU_U02	He can use the trade formulas in contacts with foreign partners.		
	Related to social competences:		
PEU_K01	Student has social competences to work in team, to solve the problems and elaborate the case studies.		
PEU_K02	Student can seek for the information and analyze it in order to solve the problem or given task.		

	PROGRAMME CONTENT				
	Lectures	Number of hours			
Lec 1	Introduction	1			
Lec 2	Foreign trade and its role in the economy:				
	<ul> <li>Theories of foreign trade</li> <li>Meaning of foreign trade for the enterprises and consumer</li> <li>Documents User in the foreign trade</li> </ul>	2			
Lec 3	<ul> <li>Customs tariff policies:</li> <li>Legal regulations (domestic and in EU)</li> <li>Meaning and tasks of the customs tariff policies</li> </ul>	2			
Lec 4	Customs tariff policies:  • Description of the documents in the foreign trade on the example of JDA SAD	2			
Lec 5	Requirments in foreign trade in EU in the other countries:				
Lec 6	<ul> <li>Internal EU market – case studies</li> <li>INTRASTAT</li> <li>International economic transactions – case studies</li> <li>Leasing and international franchising</li> </ul>	4			
Lec 7	International trading formulas:				
	<ul> <li>Kinds and examples of trading formulas</li> <li>Trading formulas: INCOTERMS 2010, RAFTD</li> </ul>	2			
Lec 8	Final test	2			

To	otal hours	15
	Classes	Number of hours
Cw1	Introduction	1
Cw2	Prepearing and realization of the economic transaction	2
Cw3	Custom tariff documents	2
Cw4	Leasing, franchising, temporary clearance	2
Cw5 & 6	INCOTERMS 2010	4
Cw7	INTRASTAT	2
Cw8	Final test	2
	Total hours	15

## TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. Analysis of selected problems, problematic discussions
- N3. consultations
- N4. Stundet's work preparing oral presentation (using powerpoint) and writing form of the paper N5. Student's work solving problems

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement	
Lecture:			
F1=P	PEU_W01 ÷ PEU_W05	Final test	
	Clas	sses:	
F1	PEU_K02, PEU_K03	Oral presentation and writing form of the paper	
F2	PEU_K01 ÷ PEU_K03 PEU_U01, PEU_U02	Team work	
F3	PEU_U01, PEU_U02 PEU_W02, PEU_W04, PEU_W05	Final test	
P= $\alpha_1 F1 + \alpha_2 F2 + \alpha_3 F3$ , gdzie $\alpha_1$ =0,3, $\alpha_2$ =0,2, $\alpha_3$ =0,5 $\Sigma \alpha = 1$			

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Bernaś B. (red.) Międzynarodowe transakcje ekonomiczne, DIFIN 2002.
- [2] Treder H. (red.), PodstaLec handlu zagranicznego, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2005.
- [3] Białecki K., Operacje handlu zagranicznego, PWE, Warszawa 2002.
- [4] Misala J., Międzynarodowa konkurencyjność gospodarki narodowej, PWE, Warszawa 2011.
- [5] Breza M., Międzynarodowe transakcje gospodarcze, Lecd. WSCIL 2009.
- [6] Rymarczyk J., Handel zagraniczny- organizacja i technika, PWE, Warszawa 2005.
- [7] Stępień B. (red.), Handel zagraniczny. Poradnik dla praktyków, PWE, Warszawa 2007.

#### SECONDARY LITERATURE:

- [1] Gostomski E., Handel wiązany w gospodarce światowej, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2004.
- [2] Baranowska-Prokop E., Transakcje wiązane w handlu miedzynarodo Lecm, Difin, Warszawa 2003.
- [3] Białecki K. P., Kaczmarek T. T., Eksportowa działalność małych i średnich przedsiębiorstw. Od przygotowania do realizacji transakcji eksportowej, Difin, Warszawa 2008.
- [4] Białecki K. P., Januszkiewicz W., Oręziak L., Leksykon handlu zagranicznego, PWE, Warszawa 2007.
- [5] Blajer A., Międzynarodowe reguły handlowe. Zasady i praktyka stosowania. Incoterms 2000, ODDK, Gdańsk 2000.
- [6] Kaczmarek T. T., Nietypowe transakcje w praktyce handlu międzynarodowego. Barter, buy-back, offset, Difin, Warszawa 2006.
- [7] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Lecdawnicza Branta, Bydgoszcz Warszawa 2005.
- [8] Kaczmarek T. T., Wzory dokumentów w transakcjach w handlu zagranicznego z komentarzem, ODDK, Gdańsk 2000.
- [9] Kozioł W. (red.), *Handel zagraniczny. Operacje, rozliczenia, regulacje*, Lecdawnictwo Naukowe Lecdziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2004.
- [10] Rynarzewski T., Strategiczna polityka handlu międzynarodowego, PWE, Warszawa 2007.
- [11] Stępień B. (red.), Transakcje handlu zagranicznego, PWE, Warszawa 2004.
- [12] Jeliński B., Polityka współpracy gospodarczej z zagranica, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2009,
- [13] Bednarczyk T. H., Instrumenty wspierania eksportu. Kredyty i ubezpieczenia, Lecd. Naukowe PWN,
- [14] Warszawa 2000,
- [15] Bednarz J., Gostomski E., *Działalność małych i średnich przedsiębiorstw na rynkach zagranicznych*, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2009

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr hab. inż. Małgorzata Rutkowska, malgorzata.rutkowska@pwr.edu.pl

\*delete if not necessary

## **SUBJECT CARD**

Name of subject in: Modelowanie projektów i procesów w warunkach niepewności Name of subject in English: Process and project modeling in conditions of uncertainty

Main field of study (if applicable): management

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0110W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	90				
Form of crediting	Crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	3				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4				

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basics of project management
- 2. Basics of process management
- 3. Basics of probability calculation
- 4. Basics of operational research

#### SUBJECT OBJECTIVES

- C1 to acquaint the audience with the types and causes of uncertainty in today's economy
- C2 to acquaint students with the tools proposed in the literature to model and control uncertainty in the planning and implementation of projects and processes
- C3 to teach students to critically use the proposed tools in practical uncertainty modelling
- C4 making listeners aware of the importance of uncertainty in practice
- C5 making the listeners aware of the possibilities and at the same time the limitations of known tools for planning and controlling project and process uncertainty

## SUBJECT LEARNING OUTCOMES

In terms of knowledge:

PEU\_W01 has knowledge of the use of probability calculus, fuzzy number theory and

compartmental arithmetic for uncertainty modelling, as well as the limitations of these tools

PEU\_W02 has knowledge of sources and types of uncertainty in projects and processes in different industries

## In terms of skills:

PEU\_U01 is able to select the appropriate uncertainty modelling tool for the situation

PEU\_U02 can use random variables, buffers, ranges and fuzzy numbers to model and control uncertainty in simple project and process examples

## In terms of social competence:

PEU\_K01 is aware of the impact of the human factor on the uncertainty existing in the planning and control of project and process implementation

PEU\_K02 is aware of the importance of uncertainty in project and process management and of the importance of applying a systematic approach to its at least partial control

# PROGRAM CONTENT

	Lectures	Number of hours
Lec 1	Reasons for the existence of uncertainty and its types in projects and processes. Uncertainty and risk.	2
Lec 2	Probability distributions used to describe the uncertainty of the duration of tasks and processes and their properties	2
Lec 3	Using random variables to model projects and processes during the planning phase	2
Lec 4	Case studies of the use of random variables in the planning phase	2
Lec 5	Use of simulation for project and process planning under conditions of uncertainty	2
Lec 6	Control of projects and processes planned using random variables	2
Lec 7	The concept of time and cost buffer and their application to project and process planning under conditions of uncertainty	2
Lec 8	Control of the implementation of projects and processes modelled using buffers	2
Lec 9	Basics of compartmental arithmetic and the use of compartments for modelling projects and processes under uncertainty conditions, the concept of plan resistance	2
Lec 10	Control of project implementation and modelled processes using ranges	2
Lec 11	Fuzzy number theory attitudes	2
Lec 12	Use of fuzzy figures for project and process planning under conditions of uncertainty	2
Lec 13	Control of project implementation and processes modelled using fuzzy numbers	2
Lec 14	Application of mathematical programming with uncertain parameters to project and process planning under uncertain conditions	2
Lec 15	Colloquium of credit	2

	Total hours	30		
	TEACHING TOOLS USED	·		
N1.				
N2.	N2.			
N3.				

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P	PEU_W01,	Colloquium
	PEU_W02,	
	PEU_U01,	
	PEU_U02,	
	PEU_K01,	
	PEU_K02	

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Nigel Slack, Stuart Chambers, Alan Betts Robert Johnston (2009), Operations & Process Management: Principles and Practice for Strategic Impact, Pearson Publication Limited;
- [2] Kuchta D. (2011), Zagadnienie czasu i kosztów w projektach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2011
- [3] Chanas S. (1988), Wybrane problemy badań operacyjnych z rozmytymi parametrami, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław
- [4] Kuchta D, Miękka matematyka w zarządzaniu : Zastosowanie liczb przedziałowych i rozmytych w rachunkowości zarządczej, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001.
- [5] Chanas S., Kamburowski J. (1981), The use of fuzzy variables in PERT, Fuzzy Sets and Systems, 5(1), s.11-19;

## SECONDARY LITERATURE:

- [1] Bonnal P., Gourc D., Lacoste G. (2004), Where do we stand with fuzzy project scheduling? Journal of Construction Engineering and Management, 130(1), s.114-123;
- [2] Icmeli O., Rom W.O., Eksioglu S.D. (2006), An investigation of buffer sizing techniques in critical chain scheduling, European Operations Research, 172, s.401-416;
- [3] Słowiński R., Węglarz J. (red., 1989), Advances in Project Scheduling, Elsevier, Amsterdam:

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Modelowanie symulacyjne Name of subject in English: Simulation modeling Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0031

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	60		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	2		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Modeling in Excel spreadsheet
- 2. Basics of probability and statistics

## SUBJECT OBJECTIVES

- C1 Acquaintance with basic concepts of stochastic simulation modeling
- C2 Ability to use simulation models to describe the present state and to predict the future performance of the organization.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 The student has the knowledge about the steps of simulation models' building.

PEU\_W02 The student has the specialist knowledge in the field of quantitative and qualitative modeling and forecasting of the states and the processes in the organization.

relating to skills:

PEU\_U01 The student can build and use simulation models to solve the complex managerial problems.

relating to social competences:

PEU\_K01 The student understands the essence of ethics in business

PEU K02 The student can interact and work in collaborative forms

#### **PROGRAM CONTENT** Number of Lectures hours Class rules. Simulation and forecasting: basic definitions Lec 1 Simulation modeling cycle. Simulation and forecasting 2 Lec 2 Discrete event simulation in Arena. Part 1 Lec 3 Discrete event simulation in Arena. Part 2 2 Lec 4 Input data modeling. Random numbers Lec 5 Experiment planning Lec 6 Verification and validation Lec. 7 Lec 8 Final test **15** Total hours Number of Laboratory hours Lab 1 Class rules Lab 2 Discrete event model - introduction Lab 3 Discrete event model – part 1 Discrete event model – part 2 Lab 4 2 Lab 5 Discrete event model – part 3 Lab 6 Introduction to mini project Lab 7 Project defense 2 Lab 8 Grading Total hours 15

## TEACHING TOOLS USED

N1. Multimedia presentation

N2. Software packages (Arena, Extend, Simio, AnyLogic)

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_K01	Assignment no 1
F2	PEU_U01 PEU_K01	Assignment no 2
F3	PEU_U01 PEU_K01	Assignment no 3
F3	PEU_U01 PEU_K01	Assignment no 4
F3	PEU_K02	Mini project

PEU_K01	
P Final test PEK W01 PED W02	

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] **Mielczarek B.,** *Modelowanie symulacyjne w zarządzaniu. Symulacja dyskre*tna. Oficyna Wydawnicza PWr Wrocław 2009
- [2] Kelton W.D., Sadowski R.P., Sturrock D.T., Simulation with Arena, McGraw Hill Higher Education
- [3] Rossetti M.D., Simulation modelling and Arena, John Wiley and Sons, Inc., 2010

## SECONDARY LITERATURE:

- [1] Winston L.W., Microsoft Excel 2019. Analiza i modelowanie danych biznesowych, APN Promise, Warszawa 2019
- [2] Gajda J.B., Prognozowanie i symulacja a decyzje gospodarcze, Wyd. C.H.Beck, Warszawa 2001
- [3] Cieślak M., (red.) *Prognozowanie gospodarcze. Metody i zastosowania*, Wydawnictwo Naukowe PWN, Warszawa 2002.
- [4] Maciąg A., Pietroń R., Kukla S. Prognozowanie i symulacja w przedsiębiorstwie, PWE 2013

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<sup>\*</sup>delete if not necessary

## SUBJECT CARD

Name in Polish: Pomiary przedsiębiorczości i innowacyjności

Name in English: Measurements of entrepreneurship and innovation

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0079

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of basic management
- 2. Knowledgemanagement concept including process approach

## **SUBJECT OBJECTIVES**

- C1. Getting the student's basic knowledge about management organization, methods and measurement techniques,
- C2. Understanding the issues that relate to the importance of performance measurement, evaluation of effectiveness
- C3. Ability to develop scorecards organization, construction measures and to formulate initiatives

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – has ordered knowledge of the methods of measurement and the use of business process approach

relating to skills:

From the range of skills:

PEU\_U01 – able to formulate objectives, measures and initiatives in the implementation and monitoring of activities related to management

PEU\_U02 –relevant research tools to the analysis can be applied

relating to social competences:

The scope of social competence:

PEU\_K01 – One is prepared to initiate changes in the organization and participation in the planning and implementation.. One can provide multi-impact changes. He can think and act in an entrepreneurial manner....

	PROGRAMME CONTENT			
	Lectures	Number of hours		
Wy1	Introduction to management and innovation	2		
Wy2	Modern concepts for measuring organizational management.	2		
Wy3	Determinants of obtaining benefits by the company under business from multiple angles.	2		
Wy4	Organizational performance measurement system based on management.	2		
Wy5	Criteria for evaluation of management.	2		
Wy6	Measures of business criteria.	2		
Wy7	Sustainable and balanced scorecard card action.	2		
Wy8	Test.	1		
	Total hours.	15		

	Classes		
	Organizational classes-setting rules, formulation of objectives, tasks and project groups, determination of project work schedule.	2	
Ćw2	Diagnosis companies for the implementation of innovative activities.	2	
Ćw3	Identifygoals for management.	2	
Ćw4	Formulatingobjectivesmeasures.	2	
Ćw5	Formulation of initiatives in the field of management and innovation.	2	
Ćw6	Identification of the resources needed to implement the initiatives.	2	
Ćw7	Presentation of the project results.	2	
Ćw8	Presentation of the project results.	1	
	Total hours	15	

## TEACHING TOOLS USED

- N1. informative lecture
- N2. multimedia presentation
- N3. lecture problem

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
Р	PEU_W01	Test (lecture)
Р	PEU_U01 PEU_U02	The design andpresentation ofproject results (workshop)
P	PEU_W01	Test (lecture)
P=2	1	•

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. <u>Robert R. Sterling</u>, Theory of the measurement of enterprise income, University Press of Kansas 2001
- 2. R.Kaplan, D.Norton, The Balanced Scorecard: Translating Strategy into Action, Harvard Business Press 1996
- 3. Chantal Hartog, Jolanda Hessels, Global Entrepreneurship Monitor, Zoetermeer, August 2011

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Radosław Ryńca, radoslaw.rynca@pwr.wroc.pl

## **SUBJECT CARD**

Name of subject in Polish: Prawne i ekonomiczne aspekty prowadzenia biznesu i

przedsięwzięć innowacyjnych

Name of subject in English: Legal and economic aspects of doing business and innovative

projects

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0098

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7	0.7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about enterprises and entrepreneurship

## **SUBJECT OBJECTIVES**

- C1 Knowledge and understanding of the economic environment
- C2 Understanding, how the formal regulations and economic environment affects companies and their strategic choices
- C3 Ability to identify and analyze the influence of market conditions on business and investment decisions, in the context of innovative projects.

## SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU W01 —Has a well-structured knowledge of the economic and law conditions affecting business decisions, in the context of innovative projects

PEU W02 – Understands the strategic context of companies operations relating to skills:

PEU U01 – Can define, analyze and apply the effective tools and regulations (economic and law) in order to solve problems associated with entering new sectors.

PEU U02 – Can use proper sources of information about market regulations, which affect

company activities on the markets.
relating to social competences:
PEU K01 –Is prepared for proposing changes in a company on a basis of his/her knowledge

	PROGRAMME CONTENT				
	Lectures	Number of hours			
Lec	Economic freedom, in the context of a legal system	2			
Lec	Defining the organizational and legal form of business	2			
Lec	Innovativeness and entrepreneurship in the context of legal regulations and economic conditions	2			
Lec -	4 Analysis of economic environment	2			
Lec	Inner and outer sources of company financing/funding.	2			
Lec	Factors affecting the possibility of success of the enterprise and innovative projects	2			
Lec	Assessment of a risk associated with innovative projects	2			
Lec	8 Test	1			
	Total hours	15			
	Classes	Number of hours			
Cl 1	Economic freedom, in the context of a legal system	2			
C1 2	Defining the organization and legal forms of economic activity	2			
	Innovativeness and entrepreneurship in the context of legal regulations and economic conditions	2			
Cl 4	Analysis of economic environment	2			
Cl 5	Inner and outer sources of company financing/funding.	2			
II I N	Factors affecting the possibility of success of the enterprise and innovative projects	2			
/ .	Evaluation of innovative projects. Assessment of a risk associated with innovative projects	2			
Cl 8	Test	1			
	Total hours	15			
	TEACHING TOOLS USED				
Lectu	res				
	nformative lecture				
N2. Multimedia presentation					
N3. F	roblem lecture				
Class					
	N1. Exercises				
N2. I	N2. Discussion				

# EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

<b>Evaluation</b> (F – forming	Educational effect	Way of evaluating educational effect achievement
(during semester), P –	number	
concluding (at semester		
end)		

F	PEU W02	Participation in discussion
	PEU U01, PEU U02	Exercises and presenting a report
	PEU K01	Participation in discussion
P	PEU W01	Passing on the basis of a test
	PEU W02	
	PEU U01	
С		

PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] W. Żuber, zarządzanie innowacjami w przedsiębiorstwie, Wyd. Difin, Warszawa 2016.
- [2] G. Gierszewska, M. Romanowska Analiza strategiczna przedsiębiorstwa PWE 1997
- [3] P. Tamowicz Przedsiębiorczość akademicka Spółki spin-off w Polsce, Polska Agencja Rozwoju Przedsiębiorczości, Warszawa 2006
- [4] Prawne i organizacyjne aspekty podejmowania działalności gospodarczej
- [5] Działalność gospodarcza typu spin off i spin out pod redakcją J. Izdebskiego Lublin 2010 Katolicki Uniwersytet Lubelski Jana Pawła II
- [6] W. Janasz, K. Kozioł, Determinanty działalności innowacyjnej przedsiębiorstw, Polskie Wydawnictwo Eknomiczne, Warszawa 2016.

## **SECONDARY LITERATURE:**

- [1] Clausewitz o strategii, PWE Warszawa. 2002
- [2] Ekonomia nowe spojrzenie tom 1, Bell studio 2005
- [3] Kenneth Allard, Battling for Competitive Advantage, 2005

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, edyta.ropuszynska-surma@pwr.wroc.pl

## **SUBJECT CARD**

Name of subject in Polish: Przedsiębiorczość Strategiczna Name of subject in English: Strategic Entrepreneurship

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovation and Projects

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0071

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				15
Number of hours of total student workload (CNPS)	60				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	2				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4				0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. -
- 2.
- 3

#### SUBJECT OBJECTIVES

- C1 Obtaining knowledge about strategic entrepreneurship
- C2 Knowing instruments (strategies, models and methods), that support strategic entrepreneurship

## SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Student knows the idea of strategic entrepreneurship

PEU\_W02 Knowledge about type of entrepreneurship

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a entrepreneurship

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of entrepreneurship

Relating to social competences:

PEU\_K01 Acquire a enthusiastic approach for activity and skills in the field of innovation and

PEU_K PEU_K		
I LO_N	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to strategic entrepreneurship	2
Lec 2	Entrepreneurial organization – generational dimension	2
Lec 3	Entrepreneurial people	2
Lec 4	Entrepreneurial resources	2
Lec 5	Entrepreneurial processes	2
	Entrepreneurial results (e.g. startups)	2
	Entreprenerial envinronment	2
	Entrepreneurship assessment	2
	Academic entrepreneurship	2
	SME entrepreneurship	2
Lec 11	Corporate entrepreneurship	2
	Regional entrepreneurship	2
	Social entrepreneurship	2
	Colloquium	2
	General remarks and summary	2
	Total hours	30
	Seminar	Number of hours
Sem 1	Introduction to seminar	1
Sem 2	Defining entrepreneurship	2
Sem 3	Type of etrepreneurship	2
	Entrpreneurship – models, strategies	2
	Process approach of entrepreneurship	2
Sem 6	Entrepreneurship assessment	2
	Examples of entrepreneurial organizations	2
Sem8	General remarks and summary	2
••••	Total hours	15
	TEACHING TOOLS USED	
N1 Lap	1	
	ultimedia performance	
INS. Sel	lected statistical data and reports  EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVED	VEMENT
	EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIE	A TOTATTAL T

Evaluation (F	Learning outcomes number	Way of evaluating learning outcomes achievement
– forming		
(during		
semester), P –		
concluding (at		

semester end)		
F1	PEU_W01, PEU_W02, PEU_W03, PEU_U01,	Estimation the student activity by checking list of presence (lecture, seminar)
F2	PEU_W01, PEU_W02, PEU_W03, PEU_UO1	Estimation the knowledge by colloquium, preparing the project and seminar performance
F3	PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, seminar)

**Evaluation** (F – forming (during semester), P – concluding (at semester end)

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] J. DYER, H. GREGERSEN, C.M. CHRISTEMSEN, DNA INOWATORA. ICAN INSTITUTE 2011.
- [2] A. DEREŃ, J.SKONIECZNY, ZARZĄDZANIE TWÓRCZOŚCIĄ ORGANIZACYJNĄ, WYD. DIFIN WARSZAWA2016.
- [3] W.KASPRZAK, K.PELC, INNOWACJE. STRATEGIE TECHNICZNE I ROZWOJOWE, WYDAWNICTWO POLITECHNIKI WROCŁAWSKIEJ, WROCŁAW, 2012
- [4] G.GIERSZEWSKA, B.OLSZEWSKA, J.SKONIECZNY, ZARZĄDZANIE STRATEGICZNE DLA INŻYNIERÓW, PWE, WARSZAWA 2012
- [5] J.SKONIECZNY (RED.), KSZTAŁTOWANIE ZACHOWAŃ INNOWACYJNYCH, PRZEDSIĘBIORCZYCH I TWÓRCZYCH W EDUKACJI INŻYNIERA, WYDAWNICTWO INDYGO ZAHIR MEDIA, WROCŁAW, 2011
- [6] P.DRUCKER, NATCHNIENIE I FART CZYLI INNOWACJA I PRZEDSIĘBIORCZOŚĆ, WYDAWNICTWO STUDIA EMKA, WARSZAWA 2004 [7] J. SKONIECZNY, TWÓRCZOŚĆ JAKO FUNDAMENT STRATEGII ORGANIZACJI, WROCŁAW 2019.

## SECONDARY LITERATURE:

- [1] Kasprzak W., Pelc K., Innowacje. Strategie techniczne i rozwojowe, Wydawnictwo Politechniki Wrocławskiej, Wrocław, 2012
- [2] Gierszewska G., Olszewska B., Skonieczny J., Zarządzanie strategiczne dla inżynierów, PWE, Warszawa 2012
- [3] P.Drucker, Natchnienie i fart czyli innowacja i przedsiębiorczość, Wydawnictwo Studia Emka, Warszawa 2004.
- [4] E. Catmull, *Kreatywność S.A*. MT Biznes, Warszawa 2014.
- [5] P. Thiel, Zero to one, Notatki o start-upach, czyli jak budować przyszłość, MT Biznes, Warszawa 2015
- [6] W. Isaacson, *Steve Jobs*, Wydawnictwo Insignis, 2011

- [7] L. Kahney, *Jony Ive, genius, który zaprojektował najsłynniejsze produkty Apple*, Insignis, 2014.
- [8] W. Isaacson, *Innowatorzy*, Wyd. Insignis 2014.
- [9] Ph. Knight, Sztuka zwycięstwa, Rebis, Poznań 2017.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jan SKONIECZNY, PhD.Eng., e-mail - jan.skonieczny@pwr.wroc.pl

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Psychologia decyzji i ryzyka Name of subject in English: Psychology of decision and risk

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0102

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

#### SUBJECT OBJECTIVES

- C1 Acquisition of knowledge about the psychological mechanisms involved in making decision
- C2 Knowing of situational and personality determinants of decision-making processes.
- C3. Acquiring of knowledge in the scope of psychological approach to risk in decision-
- C4 acquisition of skills identification of cognitive errors and distortions in decision-making and risk perception
- C5 Mastering the skills of identifying manifestations of bounded rationality in decision-making and risk perception making
- C6. Understanding the role of psychological factors and individual differences in decision-making and financial risk

## SUBJECT LEARNING OUTCOMES

## relating to knowledge

- PEU\_W01 student knows the nature and operation of psychological mechanisms of decision-making.
- PEU\_W02 he has knowledge of situational and personality determinants decision-making processes.
- PEU\_W03 he has knowledge of the psychological approach to risk in decision-making relating to skills:
- PEU\_U01 He has ability to identify manifestations of bounded rationality in decision-making

and risk perception

PEU\_U02 He can be identified cognitive biases and distortions in the process of risk perception and decision-making

# relating to social competence:

PEU\_K01 he can determine the role of psychological factors and individual differences in risk and decision-making

## PROGRAM CONTENT

TROGRAM CONTENT		
	Lectures	Number of hours
Lec1	Behavioral decision theory. Normative and descriptive models of decision-making and risk	2
Lec2	Model of bounded rationality in decision-making	2
Lec3	General dimensions of the decision. Dimensions decisions in the organization	2
Lec4	Cycles of information processing in the decision making process.  Psychological decision rules	2
Lec5	The role of heuristic in decision making (sources of biases and inclination in decision-making).	2
Lec6	The prospect theory in decision making processes	2
Lec7	Psychological aspects and determinant of risk assessment and decision-making	2
Lec8	The role of emotions in financial risk-taking	1
	Total hours	15

	Seminar	Number of hours
Sem1	Decision-making models - phases. Rational and automatic processes in decision making.	2
Sem2	Cognitive processes in decision-making. Estimating of the subjective probability in decision-making	2
Sem3	Diagnostic heuristics in decision processes Types of cognitive biases and inclination.	2
Sem4	The consequences of prospect theory - biases in risk assessment - The effect of predisposition and the effect of sunk costs	2
Sem5	Rules of integrating alternatives in decision-making	2
Sem6	Quantitative and qualitative dimensions of perceived risk in decision-making	2
Sem7	Individual differences in decision-making and risk perception	2
Sem8	Sources of biases in financial risk estimation	1
	Total hours	15

# **TEACHING TOOLS USED**

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)
- N5 Own work

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester		
end)		
P	PEU_W01 - PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P	PEU_W01 – PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P=2	·	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Nosal C.S. (2001). Psychologia myślenia i działania menedżera., Wrocław, AKADE
- [2] Kozielecki J. (1997). Psychologiczna teoria decyzji. Warszawa: PWN
- [3] Tyszka, T., Zaleśkiewicz, T. (2001). Racjonalność decyzji. Pewność i ryzyko. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- [4] Tyszka, T. (1999). Pułapki oceniania i podejmowania decyzji. Gdańsk: GWP.
- [5] Sokołowska, J. (2005). Psychologia decyzji ryzykownych. Ocena prawdopodobieństwa i modele wyboru w sytuacji ryzykownej. Podręcznik akademicki. Warszawa, Wydawnictwo Szkoły Wyższej Psychologii Społecznej "Academica".
- [6] Goszczyńska M., Studenski R. (red.) (2006). Psychologia zachowań ryzykownych koncepcje badania praktyka. Wydawnictwo: ŻAK

## SECONDARY LITERATURE:

- [1] Simon H., Podejmowanie decyzji kierowniczych, PWE, Warszawa 1982.
- [2] Tyszka T., Analiza decyzyjna i psychologia decyzji, PWN, Warszawa 1986.
- [3] Zaleśkiewicz, T. (2003). Psychologia inwestora giełdowego. Wprowadzenie do behawioralnych finansów. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- [4] Zaleśkiewicz, T. (2005). Przyjemność czy konieczność. Psychologia spostrzegania i podejmowania ryzyka. Gdańsk: Gdańskie Wydawnictwo Psychologiczne
- [5] Sokołowska, J. (2000). Ryzyko: Wyzwanie czy zagrożenie. Psychologiczne modele oceny i akceptacji ryzyka. Warszawa: Wydawnictwo Instytutu Psychologii PAN.
- [6] Lindsay P.H., Norman D.A. (1984). Procesy przetwarzania informacji u człowieka, Warszawa: PWN

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## SUBJECT CARD

Name of subject in Polish: Psychologia ekonomiczna Name of subject in English: Economic psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0103

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total stude nt workload (CNPS)	30				30
Form of crediting	crediting with g				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that requi re direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>niepotrzebne skreślić

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES Psychology of management

## **SUBJECT OBJECTIVES**

- C1. Knowing the psychological mechanisms related to economic decisions
- C2. Gaining knowledge about the specifics and psychological determinants of economic behavior
- C3. Knowing the mechanisms of perception of money and its behavioral consequences
- C4. Understanding the mechanisms of perception of economic activities, economic expectations of ownership and possession, economic welfare and saving
- C5. Mastering knowledge of the psychological basis of risk perception in the economic behavior and financial decisions

## SUBJECT LEARNING OUTCOMES

## Relating to knowledge:

- PEU\_W01 student has a thorough knowledge of the mechanisms and strategies for financial decision making and economic behavior
- PEU\_W02 he understands the difference between normative and behavioral approach to economic behavior.
- PEU\_W03 he recognizes the basic psychological mechanisms that determine economic behavior, such as savings, insurance and investing in the financial markets

## Relating to skills:

- PEU\_U01 he can identify psychological determinants of economic and entrepreneurial behavior
- PEU\_U02 he can identify the source irrational economic and entrepreneurial behavior,
- PEU\_U03 he can diagnose the attitude towards money and its impact on economic behavior

## Relating to social competences:

PEU\_K01 he is aware of cognitive and emotional limitations of market behavior

PROGRAM CONTENT			
	Lectures	Number of hou	
Wy1	Psychology and economics. Normative and descriptive approach to explain economic phenomena. Interest of economic psychology	2	
Wy2	Bounded rationality in making financial decisions. The role of emotions in economic behavior	2	
Wy3	Psychological mechanisms of perception and its regutational consequences	2	
Wy4	Psychological aspects of saving. Mechanisms and motives of the insurance	2	
Wy5	Psychology of investing and entrepreneurship	2	
Wy6	Subjective factors of economic behavior	2	
Wy7	Psychology of gambling and financial risk	2	
Wy8	Economic socialization	1	
	Total hours	15	

	Seminar	Number of hours
Sem1	Economic behavior from the perspective of economics and psychology. The subject of interest of economic psychology.	2
Sem2	Bounded rationality in making financial decisions.	2
Sem3	The role of emotions in economic behavior	2
Sem4	Mechanisms of mental accountingo	2
Sem5	Attitudes and mechanisms of money perceptions and its regulatory implications	2
Sem6	Psychological aspects of saving Mechanisms and motives of the insurance	2
Sem7	Identification of the mechanisms of investment and entrepreneurial behaviors and subjective determinant	2
Sem8	Perception and dimensions of financial risk	1
	Total hours	15

## TEACHING TOOLS USED

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (dur	Learning outcomes number	Way of evaluating learning outcomes a
ing semester), P – concluding (		chievement
at semester end)		
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P=2		

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Brzozowska I.M., Goszczyńska M.(2002). Psychologiczne determinanty skłonności Polaków do oszczędzania. *Czasopismo Psychologiczne*, 2, s.201 210.
- [2] Gasparski P.(1991). Oszczędzanie psychologiczna charakterystyka motywów oszczędzania. Raport z badań. "Ekonomista", 2 3, 347 353, (w teczce).
- [3] Gąsiorowska A. (2003). Kwestionariusz do pomiaru postaw wobec pieniądza Raport niepublikowany.
- [4] Tyszka T, Zaleśkiewicz T. (2004). Psychologia pieniądza. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 6, par. 6.1, 6.4, 6.5, 6.6, s. 161-165 i 177-189.
- [5] Warneryd K.E. (2004).Oszczędzanie. W: T.Tyszka (red). *Psychologia ekonomiczna*. GWWP, roz 17, par.17.1, 17.2, s.530-536, par. 17.4 i 17.5, s. 539- 563. Gasparski P. (1993). Wyznaczniki indywidualnych skłonności do bankowych form oszczędności. *Bank i Kredyt*, 24, 16-21
- [6] Zaleśkiewicz T. (2004). Percepcja działań ekonomicznych W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, s. 82-100, par. 3.2, 3.3.
- [7] Zaleśkiewicz T. (2004). Przedsiębiorczość i podejmowanie ryzyka. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 10, s. 303-331.
- [8] Zaleśkiewicz, T. (2011). Psychologia ekonomiczna. Warszawa: Wydawnictwo Naukowe PWN.
- [9] Zaleśkiewicz, T. (2002). Psychologia inwestora giełdowego. Gdańsk: GWP.

## SECONDARY LITERATURE:

- [1] Bajcar B., Gąsiorowska A. (2004) *Poznawcze i temperamentalne uwarunkowania postaw wobec pieniędzy*. W: T. Listwan (red.), *Sukces w zarządzaniu kadrami. Perspektywa globalna i lokalna*, Prace Naukowe Akademii Ekonomicznej, nr 1032, Wrocław: Wydawnictwo AE, s. 27-42.
- [2] Bloom, W. (1995) Pieniądz, serce i umysł, Warszawa: Jacek Santorski & Co Wydawnictwo
- [3] Falkowski, A., Zaleśkiewicz, T. (red.) (2012). *Psychologia poznawcza w praktyce. Ekonomia, biznes, polityka*. Warszawa: Wydawnictwo Naukowe PWN.
- [4] Friedman, M. (1994) Intrygujący pieniądz. Z historii systemów monetarnych, Łódź: Wyd Łódzkie
- [5] Gasparski P. (1992). Percepcja ryzyka związanego z decyzjami finansowymi. *Przegląd Psychologiczny*, 2, 153-159.
- [6] Gasparski P. (2000). Psychologia ekonomiczna, Czasopismo Psychologiczne, tom 6, 3-4, 205-213.
- [7] Kozak, A. (2004) *Znaczenie pieniądza*, Lublin: Norbertinum
- [8] Tyszka T. (1997). Psychologia zachowań ekonomicznych. W-wa: PWN, r.8, s.160-178. r.1, s.15-31.
- [9] Wasowicz-Kiryło, G. (2008). Psychologia finansowa. Warszawa: Difin
- [10] Zaleśkiewicz, T. (2010). Psychologia ekonomiczna jako przykład zastosowania nauki w praktyce. W: M. Duczmal, J. Żurawska (red.), *Przedsiębiorczość akademicka – nauka i gospodarka* (s. 162 – 170). Opole: Wydawnictwo Instytut Śląski

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Psychologia procesów poznawczych

Name of subject in English: Cognitive psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0104

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge in psychology

## **SUBJECT OBJECTIVES**

- C1 To provide knowledge of cognitive processes described from a psychological perspective
- C2 To make students aware of the extent to which cognitive processes are responsible for individual and group behaviors of man
- C3 Encourage group work and active discussion

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Demonstrate in-depth knowledge of the relationship between cognitive processes and behaviors such as decision making, problem solving, and proper assessment of situations, including social ones

PEU\_W02 Identify basic cognitive processes and is aware of their limitations

relating to skills:

PEU\_U01 Is able to formulate research problems as well as analyze and interpret research results

PEU\_U02 Is able to present research results and make their critical analysis

In the field of social competences:

PEU\_K01 Is able to work in a group, is ready to work in a group and manage group work

PEU\_K02 Demonstrate courage in communicating and defending one's views

	PROGRAM CONTENT				
	Lectures	Number of hours			
Lec 1	Mind and cognition. Preliminary issues				
Lec 2	Essence and form of mental representations				
Lec 3	Attention and awareness				
Lec 4	Perception				
Lec 5	Memory and memory activities				
Lec 6	Thinking and reasoning				
Lec 7	Solving problems, issuing courts, making decisions				
Lec 8	Course summary				
	Total hours				
	Seminar	Number of hours			
Sem 1	Organizational matters	1			
Sem 2	Concepts and schema. Positions in disputes over the nature of concepts.	2			
Sem 3	Biology and human behavior	2			
Sem 4	Perception and awareness	2			
Sem 5	Learning and conditioning	2			
Sem 6	Intelligence, cognition and memory	2			
Sem 7	Problem solving processess	2			
Sem 8	Colloquium and summary	2			
	Total hours	15			
	TEACHING TOOLS USED				

## N1. Lecture

- N2. Multimedia presentations of the lecturer
- N3. Multimedia presentations of students
- N4. Discussion

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

concluding (at semester end)	U	Way of evaluating learning outcomes achievement
F1 Multimedia presentations by students		Project evaluation; oral feedback

F2 Evaluation of presentations given by colleagues	Oral feedback
C Test	

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Nęcka, E., Orzechowski, J., Szymura, B. (2006) *Psychologia poznawcza* Warszawa: ACADEMICA Wydawnictwo SWPS & Wydawnictwo Naukowe PWN
- [2] Hock, R. R. (2003) 40 prac badawczych, które zmieniły oblicze psychologii Gdańsk: Gdańskie Wydawnictwo Psychologiczne

## SECONDARY LITERATURE:

- [1] Kalat, J. (2007) *Biologiczne podstawy psychologii* Warszawa: Wydawnictwo Naukowe PWN
- [2] Pinker, S. (2002) *Jak działa umysł* Warszawa: KiW

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## SUBJECT CARD

Name of subject in Polish: Rachunkowość zarządcza Name of subject in English: Managerial accounting Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0033

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have basic knowledge in accounting and finance

## SUBJECT OBJECTIVES

- C1 Acquiring knowledge about the essence of management accounting and cost accounting models, their genesis as well as classification and specificity
- C2 Acquiring the ability to analyse the costs of their planning, forecasting and optimization as well as calculationsC2

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Demonstrate ordered knowledge of the nature of management accounting and cost accounting as well as their genesis and development stages in Poland and in the world.
- PEU\_W02 Characterize and know the methods and concepts of cost accounting and management accounting tools.

relating to skills:

- PEU\_U01 Is able to list, discuss, and indicate the differences between cost accounting models and their impact on the financial result.
- PEU\_U02 Is able to, in practice, perform cost calculations and perform cost analyses, their planning, forecasting and optimization.

relating to social competences:

- PEU\_K01 Is aware of the importance of management accounting in business practice, primarily its role in providing the management of the organization with economic information necessary to secure the organization's management processes, including the performance of its basic functions.
- PEU\_K02 Is prepared to collect, process and present financial and non-financial information about the project and the company and its environment, which aims to support managers in making operational and strategic decisions.

	PROGRAM CONTENT  Number of				
Lectures					
Lec 1	The essence and scope of managerial accounting - its place in the infernal system in management, genesis and evolution	1			
Lec 2	Concept, classification, grouping and cost settlement procedures - rules, stages, directions	2			
Lec 3	Calculation of costs - essence, subject, tasks of calculation (division and additional calculation, detailed calculation methods).	2			
Lec 4	Cost accounting models in management accounting - concepts of cost accounting models and criteria for their classification, cost accounting models and material and time scope, variations of cost accounting, control and decision accounts and types: (variable cost accounting, standard cost accounting, activity cost accounting).	2			
Lec 5	Other cost accounting models: (product life cycle costing, target costing, continuous improvement costing, costing, quality)	2			
Lec 6	Price decisions and short-term decision accounts - price-setting factors, price determination methods, setting boundaries, assortment structure selection and production technology	2			
Lec 7	Budgeting as an enterprise management method - the essence, role and classification of budgets, budgeting methods, structure and stages as well as enterprise budget procedures	2			
Lec 8	Final test	2			
	Total hours	15			
	Classes	Number of hours			
Cl 1	Grouping of costs in accounting records	1			
Cl 2	Costs accountable	2			
C1 3	Calculation of costs	2			
Cl 4	Classic cost accounts	2			
Cl 5	Other cost accounting models	2			
Cl 6	Pricing and selection of assortment structure and technology	2			
Cl 7	Budgeting and deviation analysis	2			
Cl 8	Final test	2			
	Total hours	15			
	TEACHING TOOLS USED				

- N1. Informative lecture
- N2. Multimedia presentation
- N3. Practical exercises

#### **EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT**

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_K01 PEU_K02	Written final test and oral amendment
F2	PEU_U01, PEU_U02 PEU_K01 PEU_K02	Assessment of the degree of commitment to the problems being solved
F3	PEU_U01, PEU_U02	Assessment of the budget semester task
F4	PEU_U01, PEU_U02	Final test

C (Lec) = F1

C (C1) = 0.1\*F2+0.3\*F3+0.6\*F4

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Rachunkowość zarządcza w przedsiębiorstwie (wyd. II), Edward Nowak, CeDeWu, 2018
- [2] RACHUNKOWOŚĆ ZARZĄDCZA, Zadania i testy, Anna Szychta, Justyna Dobroszek, Przemysław Kabalski, Wydawnictwo Uniwersytetu Łódzkiego, 2016
- [3] Rachunkowość zarządcza i rachunek kosztów. T. 1/S. Sojak. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa "Dom Organizatora", 2012.
- [4] Rachunkowość zarządcza. Analiza i interpretacja, Opracowanie zbiorowe, Wolters Kluwer, 2013
- [5] Rachunkowość Zarządcza I Rachunek Kosztów, Anna Karmańska, DIFIN, 2009

#### SECONDARY LITERATURE:

- [6] Rachunek kosztów i rachunkowość zarządcza :teoria i praktyka /red. nauk. E. Nowak. Wrocław : Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, 2011.
- [7] Rachunkowość zarządcza /A.A. Jaruga, P. Kabalski, A.Szychta. Warszawa: Wolters Kluwer, 2010.
- [8] Rachunkowość zarządcza przedsiębiorstw. Rachunek kosztów/ D. Sołtys (red), Wyd AE Wrocław 2009.
- [9] Rachunkowość w zarządzaniu kosztami i wynikami przedsiębiorstwa /K. Kobiela-Pionnier. Warszawa: Vizja Press & IT, 2010.
- [10] Rachunek kosztów i rachunkowość zarządcza / G. K Świderska. (red), Stowarzyszenie Księgowych w Polsce, Warszawa 2008

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Dr inż. Agnieszka Parkitna <u>agnieszka.parkitna@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Rozwiązywanie konfliktów w organizacji Name of subject in English: Problem resolving in Organization

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0105

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1. Acquiring knowledge by the student in the field of interpersonal, group and organizational conflicts
- C2. To familiarize students with the methods of conflict resolution in groups and organizations.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01The student has knowledge of psychological mechanisms and factors conducive to the emergence of conflicts.

PEU\_W02 Knows methods of analyzing conflict situations and solving the relating to skills:

PEU\_U01 Able to identify, interpret and evaluate conflict situations.

PEU U02 - Is able to independently prepare a conflict situation analysis.

relating to social competences:

PEU\_K01 Demonstrate readiness to identify problems in the area of conflict resolution in the organization.

PEU\_K02 – Is able to independently seek additional knowledge and develop their skills in the field of conflict resolution.

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Conflicts - causes, functions, typologies.	1
Lec 2	Dynamics in task and natural groups.	2
Lec 3	The course of conflict situations.	2
Lec 4	Phenomena accompanying conflicts - aggression, prejudices, stereotypes.	2
Lec 5	Ways to resolve conflicts.	2
Lec 6	Culture determinants of conflicts and the negotiation process.	2
Lec 7	Social Negotiation	2
Lec 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction. Organizational classes.	1
Dem 1	introduction. Organizational classes.	1
	Identification of features of conflict situations	2
Sem 2	, and the second	2 2
Sem 2 Sem 3	Identification of features of conflict situations	2 2 2
Sem 2 Sem 3 Sem 4	Identification of features of conflict situations Simulation of a conflict situation – group A	
Sem 2 Sem 3 Sem 4 Sem 5	Identification of features of conflict situations Simulation of a conflict situation – group A Simulation of a conflict situation – group B	2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C	2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C  Simulation of a conflict situation – group D	2 2 2

#### TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works

# N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
i i i i i i i i i i i i i i i i i i i	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
2 Works propuled in groups	DELL MOS	Oral feedback. Work evaluation

C Student analytical report, final test

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- 1. McKay, M., Davies, M., Fanning, P. (2001), Sztuka skutecznego porozumiewania się, Sopot, GWP
- 2. Fisher, R., Ury, W., Bruce, P. (1994). Dochodząc do tak. Warszawa, PWE
- 3. Necki, Z. (1999). Negocjacje w biznesie. Kraków, Wyd. Prof. Szkoły Biznesu
- 4. Witkowski, T, Chełpa, S. (2003) *Psychologia konfliktów*. Wrocław, Wydawnictwo Mediator

#### SECONDARY LITERATURE:

- 1. Berne, E. (2004) W co grają ludzie,
- 2. Wojciszke, B. (2001) Człowiek wśród ludzi.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Społeczna odpowiedzialność biznesu Name of subject in English: Społeczna odpowiedzialność biznesu

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, innovation and projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: : W08ZZZ-SM0076S

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of					
organized classes in					15
University (ZZU)					
Number of hours of total					60
student workload (CNPS)					60
Form of crediting					Crediting
_					with grade
For group of courses mark					
(X) final course					
Number of ECTS points					2
including number of ECTS					
points for practical (P)					2
classes					
including number of ECTS					
points corresponding to classes					
that require direct participation					0,7
of lecturers and other					
academics (BU)					

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Passing subjects: Strategic Management, Management concepts

#### SUBJECT OBJECTIVES

- C1. Forming a view on CSR as a strategic motive of a modern enterprise
- C2. Understanding key determinants shaping the application of CSR in practice.

#### SUBJECT EDUCATIONAL EFFECTS

In the field of knowledge:

PEU\_W01 Can characterize the essence of corporate social responsibility

PEU\_W02 Is able to indicate the instruments related to the application of CSR in economic practice

Relating to skills:

PEU\_U01 Is able to use the achievements and tools in the event of the emergence of the need to implement a strategy inclined towards the implementation of CSR

In the field of social competences:

- PEU\_K01 Awareness of the existence of barriers and threats in the strategic formulation of CSR
- S2\_PIP\_W01 Has in-depth knowledge of changes taking place in organizations and in their environment and about methods of change management
- S2\_PIP\_W08 Understand the essence, principles and instruments of corporate social responsibility and points to its manifestations in practice.
- S2\_PIP\_U01 Is able to interpret and explain economic and social phenomena and their impact on the organization's innovativeness, taking into account ethical, legal and social norms.
- S2\_PIP\_U03 Is able to creatively analyze a specific organizational problem and formulate various variants of solving the problem, he can verify them by putting simple research hypotheses in the scope of their effects

	PROGRAMME CONTENT			
	Seminar	Number of hours		
Sem 1	Outline of issues related to the social responsibility of business. Discussing the organization of classes and assessment principles.	1		
Sem 2	Evolution of views on CSR, CSR and the concept of sustainable development.	2		
Sem 3	Contemporary views on CSR, the importance of programming documents created by social institutions	2		
Sem4	Norms, standards and tools of CSR (social marketing, marketing socially engaged programs, ethical, eco-labeling, marking social investment and social responsibility, etc.)	2		
Sem5	Mierzenie efektów związanych z odpowiedzialnością społeczną przedsiębiorstwa	2		
Sem6	Attitudes towards CSR in the world. Development perspectives.	2		
Sem7	Attitudes towards CSR in Poland. Development perspectives.	2		
Sem8	Contemporary challenges and CSR dilemmas. Summary of classes	2		
	Total hours	15		

#### TEACHING TOOLS USED

- N1 Presentation of a selected seminar topic
- N2 Case studies
- N3 Control questions (discussion)
- N4 Activity and presence

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01	Preparation of the presentation and case study for
F1	DELL IZO1	the selected topic (problem)
F1	PEU_K01	Preparation of the presentation and case study for the selected topic (problem)
F2	PEU_W01	Preparation for discussion
F2	PEU_W02	Preparation for discussion
F2	PEU_U01	Preparation for discussion
F2	PEU_K01	Preparation for discussion
F3	PEU_W01	Assessment of activity and presence
F3	PEU_W01	Assessment of activity and presence
P = 0.4*F1 + 0.4*F2 + 0.2	*F3	

#### PRIMARY AND SECONDARY LITERATURE

#### **PRIMARY LITERATURE:**

- [1] Rybak M., Etyka menedżera społeczna odpowiedzialność Przedsiębiorstwa, PWN, Warszawa 2004.
- [2] Kopycińska D., Koncepcja społecznej odpowiedzialności firmy. Etyka Biznesu, PWN, Warszawa 2000.
- [3] Żemigała M., Społeczna odpowiedzialność przedsiębiorstwa. Budowanie zdrowej, efektywnej organizacji, Wolters Kluwer Business, Warszawa 2007.
- [4] Harvard Business School Press, Społeczna odpowiedzialność Przedsiębiorstw, Wydawnictwo Onepress, Warszawa 2007.
- [5] Koneczna R., CSR i jego narzędzia jako element strategii firm- praktyczny przewodnik, Wydawnictwo IGSMiE, Kraków 2014.
- [6] Raport "US Sustainable, Responsible and Impact Investing Trends 2014"
- [7] Paliwoda-Matiolańska Adriana, Odpowiedzialność społeczna w procesie zarządzania przedsiębiorstwem, C.H. Beck, 2014.

#### **SECONDARY LITERATURE:**

- [1] Odpowiedzialność społeczna biznesu, Wyd. HRB Polska, 2010, 2011 i 2012 r.
- [2] Jonker J., Rudnicka A., Reichel J., Nowe horyzonty. Przewodnik po społecznej odpowiedzialności i rozwoju zrównoważonym. CSR Impact i ODE Źródła, Łódź 2011

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr Jagoda Mrzygłocka-Chojnacka; jagoda.mrzyglocka-chojnacka@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Zarządzanie Strategiczne Name in English: Strategic Management

Main field of study (if applicable): Management

Specialization (if applicable):

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			30	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			1	1
including number of ECTS points for practical (P) classes				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### **SUBJECT OBJECTIVES**

C1 Obtaining knowledge about strategic management

C2 Introduce instruments (strategies, models and methods), that support strategic management

C3 Acquire by students skills for practice strategic management tools

#### SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Students know the idea of strategic management

PEU\_W02 Knowledge about variety of strategies

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a strategy

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of strategic management

Relating to social competences:

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Sem 8	Strategy implementation	2
	Total hours	15

#### **TEACHING TOOLS USED**

- N1. Multimedia performance
- N2. Reports
- N3. Selected statistical data

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the student activity by checking list of presence (lecture, seminar, project)
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the knowledge by exam, preparing the project and seminar performance
F3	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, project, seminar)

P = 0.25F1 + 0.5F2 + 0.25F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [[1] Gierszewska G., Olszewska B., Skonieczny J., **"Zarządzanie strategiczne dla inżynierów"** PWE Warszawa 2013
- [2] **Zarządzanie strategiczne. Systemowa koncepcja biznesu**, pod red. M. Moszkowicza, PWE Warszawa 2005

#### SECONDARY LITERATURE:

- [1] Obłój K., "Pasja i dyscyplina strategii" Wydawnictwo Poltex 2010
- [2] Krawiec F., "Zarządzanie strategią firmy", Difin, Warszawa2011
- [3] Świda A., "Strategic Management", Wroclaw University of Technology, Wrocław 2011
- [4] "O strategii" Harvard Business Reviev Polska 2012
- [5] Gierszewska G., Romanowska M., "Analiza strategiczna", PWE Warszawa 2009

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Statystyka matematyczna i ekonometria

Name of subject in English: Statistics and ekonometrics

Main field of study (if applicable): Management

Specialization (if applicable): Financial Management, Entrepreneurship, Innovations and Projects, Information Technologies in Management, Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0034

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.		0,7		

\*delete as applicable

#### PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of descriptive statistics.

#### **SUBJECT OBJECTIVES**

- C1: Acquiring knowledge of the methods of mathematical statistics and construction of economic models.
- C2: Mastering the skills of statistical inference and building economic models based on statistical data.
- C3: Mastering the ability to use statistical software in statistical analysis and econometric modeling.
- C4: Acquiring specific social competences to independently improve their knowledge, defend their own views in a professional and ethical manner.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 He has basic knowledge of mathematical statistics methods.

PEU\_W02 He has basic knowledge of econometrics.

relating to skills:

PEU\_U01 He is able to apply statistical and econometric methods in solving decision problems in management processes.

relating to social competences:

PEU\_K01 The student is able to independently develop their knowledge and skills. The student is able to interact and work in teams. The student shows readiness to identify, analyze and solve problems in the field of identification and analysis of decision problems. The

student is ready to create and solve decision models in the management information system environment.

PEU\_K02 The student is able to professionally seek and choose methods for solving decision problems and take responsibility for them. The student is able to convey and defend their own views related to the selection and application of mathematical and IT methods and tools in making decisions.

## PROGRAM CONTENT

	Lectures N				
Lec 1	The parameters of a random variable	2			
Lec 2	Cumulative distribution function, selected distributions and their parameters.	2			
Lec 3	The normal distribution, the central limit theorem.	2			
Lec 4	Confidence interval. Interval estimation when the sample size is small.	2			
Lec 5	Confidence interval. Interval estimation when the sample size is large.	2			
Lec 6	Parametric hypothesis testing.	2			
Lec 7	Comparing two populations. Comparing parameters, comparing distributions.	2			
Lec 8	Non-parametric hypothesis testing.	2			
Lec 9	Basics of econometrics. Economic models.	2			
Lec 10	Gauss-Markov assumptions. The metod of least squares.	2			
Lec 11	Statistical packages. Verification of econometric models.	2			
Lec 12	Examples of linear models.	2			
Lec 13	Examples of nonlinear models.	2			
Lec 14	Multiple-equation econometric models.	2			
Lec 15	End of course test.	2			
	Total hours	30			
	Laboratory	Number of hours			
Lab 1	Descriptive statistics.	2			
Lab 2	The normal distribution.	2			
Lab 3	Confidence intervals.	2			
Lab 4	Parametric hypothesis testing.	2			
Lab 5	Non-parametric hypothesis testing.	2			
Lab 6	Analysis of variance.	2			
Lab 7	Econometric models.	2			
Lab 8	End of course test.	1			
	Total hours	15			

#### TEACHING TOOLS USED

- N1. A multimedia presentation.
- N2. Computer assisted data analysis.
- N3. Presentation of the project.
- N4. Written test.

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
` '		Partial credit based on knowledge of statistical packages and a prepared project.
P (lectures)	PEU_W01 PEU_W02	Written test.

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

[1] Amir D. Aczel: Statistics in management, PWN, Warsaw 2006.[2] G.S. Maddala: Econometrics, PWN, Warsaw, 2006.

#### SECONDARY LITERATURE:

- [1] Any handbook on statistics and econometrics.
- [2] Software manual

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Skowrońska-Szmer, <u>anna.skowronska-szmer@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Strategie zarządzania wiedzą chronioną

Name of subject in English: Protected Knowledge Management Strategies

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0077

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7				0.7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed course on Intellectual Property Protection

#### **SUBJECT OBJECTIVES**

- C1 Gaining broader knowledge on the kinds and methods of intellectual property protection, use and commercialization in organizations.
- C2 Understanding of the role of intellectual property management in enterprises in the strategic aspect.
- C3 Gaining knowledge on models and processes of protected knowledge management in organizations, focused on knowledge identification and creation, protection, use and commercialization.
- C4 Presenting the most popular knowledge management strategies used by different companies.
- C5 Gaining the abilities of identification and classification of different types of knowledge for the purposes of its protection, filing applications, and practical application of the elements of known knowledge management strategies.
- C6 Gaining the abilities of analyzing and evaluation of protected knowledge management methods and tools used in organizations as well as of choosing and presenting intellectual property management strategies that might be applicable to given organization.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01Student knows and understands the role of knowledge protection and its scope.

  Understands the concepts and characteristics of different types of nonmaterial assets protected by intellectual property rights. Has broader knowledge on intellectual property protection methods and procedures in Poland, EU, and in the world.
- PEU\_W02 Student understands the role and value of intellectual property for the development of modern organizations and whole economies, as well as the need for the protected knowledge management. Understands the core concept of intellectual property management.
- PEU\_W03 Student knows the models and processes of protected knowledge management, strategies of qualification methods for the knowledge protection, application, use and commercialization of protected knowledge.
- PEU\_W04 Student knows the most popular strategies of protected knowledge management in companies and the possibilities of their implementation.
- PEU\_W05 Student knows the methods and strategies of protection, use and commercialization of intellectual property as well as types of agreements used in case of knowledge transfer. Knows the consequences of intellectual property infringements and the defence strategies in case of own knowledge infringement. Student gains the basic knowledge on the intellectual property evaluation methods and tools.
- PEU\_W06 Student knows the phases of innovation processes in organisations and the use of patent information in each phase for the purpose of better knowledge management.

. . .

relating to skills:

- PEU\_U01 Student has the ability to use in a proper way different systems of knowledge protection and can identify and classify given types of knowledge for protection purposes, as well as knows all the steps and procedures leading to the filing of an application.
- PEU\_U02 Student can use in a proper way the sources and tools of patent information, can do a patent, and other intellectual property, searches for the purposes of protected knowledge management.
- PEU\_U03 Student can identify the general intellectual property management strategy in a company, based on the partial strategies of knowledge identification, protection, use and commercialization. Can propose partial and general strategies of protected knowledge management for a given organization, alligned to its mission and goals.

relating to social competences:

PEU\_K01 Student has the ability of working in groups and share the duties connected with certain tasks, can do the researches and analyse their outcomes, as well as present the tasks for which was responsible.

	PROGRAMME CONTENT  Lectures  Number of hours					
Lec 1	The role of intellectual proeprty protection for modern organisations. Characteristics of different types of nonmaterial assets protected by intellectual property rights. Intellectual property protection methods and procedures in Poland, EU, and in the world.	2				
Lec 2	The concept and model of protected knowledge management.	2				
Lec 3	Processes of knowledge management, qualification methods for the	2				

	knowledge protection, application, use and commercialization of protected knowledge.	
Lec 4	The use of patent information in protected knowledge management on each phase of innovation processes in organizations.	2
Lec 5	The most popular types of strategies of protected knowledge management used by companies.	2
Lec 6	Strategies of protection, use and commercialization of intellectual property as well as types of agreements used in case of knowledge transfer. Defence strategies in case of knowledge infringements. Intellectual property evaluation methods and tools.	2
Lec 7	Success stories and failures in intellectual property management – case studies.	2
Lec 8	Test	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Processes and strategies of protected knowledge management in chosen enterprises – strategies of knowledge protection	2
Sem 2	Identification and classification of different types of knowledge for protection and preparing the application documentation for a patent, utility model, design and trademark.	2
Sem 3	Patent information in protected knowledge management and in innovation processes – patent searches	2
Sem 4	Stategies for protected knowledge use and commercialization. Preparing the agreement for a case of knowledge transfer.	2
Sem 5	Indication of a general protected knowledge management strategy of an organization based on partial strategies of protection, use and commercialization	2
	Developing the model of protected knowledge management for a given enterprise	2
Sem 7	Summarizing presentations and discussions	3
	Total hours	15
	TEACHING TOOLS USED	
	ultimedia presentations ernet patent information databases	

# EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

(during semester), P –	Educational effect number	Way of evaluating educational effect achievement
concluding (at semester end)		
· ·	PEU_W01 -W06	Test
	PEU_K01	
F2	PEU_W01 -W06	Activity, presence
F3	PEU_U01 -U03	Presentations

	PEU_K01	
F4	PEU_U01 -U03	Activity, presence
P1 (for a lecture) = 0,7*F1 + P2 (for a seminar) = 0,8*F3	-	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Kotarba W.: Zarządzanie wiedzą chronioną w przedsiębiorstwie. Instytut Organizacji i Zarządzania w Przemyśle "ORGMASZ". Warszawa 2001.
- [2] Red. nauk. W. Kotarba: Ochrona wiedzy a kapitał intelektualny organizacji. PWE, Warszawa 2006.
- [3] Głuszek E.: Zarządzanie zasobami niematerialnymi przedsiębiorstwa. Wyd. AE Wrocław, Wrocław 2004.

#### SECONDARY LITERATURE:

- [1] Ustawa z dnia 30 czerwca 2000r. Prawo własności przemysłowej. Dz. U. Nr 49 z 2001r., poz. 508.
- [2] Ustawa z dnia 4 lutego 1994 r. o prawie autorskim i prawach pokrewnych. Dz. U. Nr 80 z 2000r., poz. 904.
- [3] Ustawa z dnia 16 kwietnia 1993r. o zwalczaniu nieuczciwej konkurencji. Dz. U. Nr 47, poz. 211, z 1996r. Nr 106, poz. 496, z 1997r. Nr 88, poz. 554, z 1998r. Nr 106, poz. 668.
- [4] Internet sites: www.uprp.pl, www.epo.org, www.wipo.org

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Aldona Dereń, Aldana.Deren@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Umowy w obrocie gospodarczym

Name of subject in English: Agreement in trade Main field of study (if applicable): Management

**Specialization (if applicable):** 

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0093

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge the law

#### **SUBJECT OBJECTIVES**

- C1 showing the importance of the agreements, as the primary vehicle for the exchange of goods and services in a market economy
- C2 characteristics of the agreements as an instrument for correcting market failure (such as intervention buying or selling products, raw materials or currency), or leading to the achievement of certain social consequences (eg, public works to stimulate the labor market)
- C3 characteristics of economic agreements applicable to business

#### SUBJECT EDUCATIONAL EFFECTS

The scope of knowledge:

PEU\_W01 - knows what agreement is, how to conclude it and other mains rules in business transactions

PEU\_W02 - knows types of entitiens in business transactions and rules of solving contract disputes between them

#### Relating to skills:

PEU\_U01 - is able to make the correct interpretation of the laws, can edit a draft of agreement and is able to assess the impact of its conclusion

#### The scope of social competence:

PEU\_K01 - is aware of the need to develop their own knowledge and professional skills.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec1	Obligations of the contract as a source of	1
Lec2	The principle of freedom of contract and its practical consequences for the economic	1
Lec3	Concept and types of contracts	1
Lec4	General characteristics of economic agreements	1
Lec5	The methods and procedures for contract	1
	Legal nature of the contract preparation activities standard contracts	1
Lec7	Implementation of trade agreements - practical aspects	
Lec8	Trade agreements in cross-border	1
Lec9	Trade agreements in cross-border	1
Lec10	Characteristics of contracts related to trading in financial instruments in the capital market	1
Lec11	Licensing agreements in the enterprise market activity	1
Lec12	Characteristics of selected banking agreements	1
Lec13	Contractual litigation. Arbitration clause	1
Lec14	The use of mediation and arbitration of contractual disputes	1
Lec15	European contract law	1
	Total hours	15
	Classes	Number of hours
C11	The contract of sale and its regulation in the Civil Code	2
C12	The supply Agreement	2
C13	Economic importance of the lease	2
C14	Tax effects of the leasing agreement	2
C15	Franchise agreement	2
Cl6	Credit Agreement and its characteristics	2
C17	Contract as a source of obligations under European law	3
	Total hours	15
	TEACHING TOOLS USED	

- N1. N1. informative lecture
- N2. multimedia presentation
- N3. . lecture problem

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

8	Educational effect number	Way of evaluating educational effect achievement
P	PEU_W01 PEU_W02	written test
D_1		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Koch A., Napierała J., Umowy w obrocie gospodarczym, Wyd. Wolters Kluwer, Warszawa 2011
- [2] Rajski J., Prawo o kontraktach w obrocie gospodarczym, Warszawa 2005
- [3] Gospodarek J., Umowy gospodarcze. Wybrane zagadnienia, Oficyna Wydawnicza SGH, Warszawa 2010
- [4] Ustawa z dnia 23 kwietnia 1964 r. Kodeks cywilny (Dz. U. z 1964 r., Nr 16, poz. 93 z późn. zm)
- [5] Turzyński M., Umowy leasingu w prawie podatkowym i bilansowym, Wyd. Wolters Kluwer Business, Warszawa 2009
- [6] Budzyński W., Umowy w handlu krajowym i zagranicznym, Wyd. Poltex, Warszawa 2012 **SECONDARY LITERATURE:**
- [1] Radwański Z. Ponowisz Lipska J. "Zobowiązania. Część szczegółowa" Wydawnictwo C.H. Beck, Warszawa 2001
- [2] Czachórski W., Zobowiązania, Wydawnictwo Prawnicze, Warszawa 2002
- [3] Władyka S.,(red.), Prawo umów w obrocie gospodarczym, Wyd. C.H. Beck, Warszawa 2001
- [4] Ciepła H.., Pieniek G., komentarz do kodeksu cywilnego. Księga III Zobowiązania Tom 2, Wydawnictwo prawnicze, Warszawa 2001
- [5]Stec M., Prawo umów w obrocie gospodarczym, pod. red S. Władyki, Wyd. C.H. Beck, Warszawa 2001
- [6] Koch A., Napierała J., Prawo spółek handlowych, Wyd. Wolters Kluwer, Warszawa 2011

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Aldona- Małgorzata Dereń aldona.deren@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zaawansowane Zarządzanie Projektami

Name of subject in English: Advanced Project Management

Main field of study (if applicable): Management

Specialization (if applicable): Entrepreneurship, Innovations and Projects

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0072

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15		30	
Number of hours of total student workload (CNPS)	90	30		60	
Form of crediting	Examination	crediting with grade		crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	3	1		2	
including number of ECTS points for practical (P) classes		1		2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	í	0,7		1,4	

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Project Management

#### SUBJECT OBJECTIVES

- C1 Obtention by students knowledge on classical and agile project management methodologies
- C2 Obtention by students knowledge on functioning and application of PM appropriated methods, techniques and tools
- C3 Mastery of practical skills to use of methods, techniques and tools in real project management

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Knows PM specificity according to important methodics

PEU W02 Knows tools specific for these methodics

relating to skills:

PEU\_U01 Is able to solve PM problems using methodics and tools

PEU\_U02 Is able to use them

relating to social competences:

PEU K01 Understands conditions of different PM methodics use

PEU K02 Is conscious of priorities and constraints existing in this area

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec1	Project stakeholder management	2
Lec2	Advanced risk management methods	2
Lec3	Scheduling projects with limited resources	2
Lec4	Cost estimation and budgeting of projects	2
Lec5.	Raising funds for projects	2
Lec6.	Earned value method	2
Lec7.	Control of schedule implementation	2
Lec8.	Critical chain method	2
Lec9.	Agile approach to project management	2
Lec10	Scrum appraoch	2
Lec11	IPMA and PMI methodology	2
Lec12	Prince 2 methodology	2
	The concept of project success	2
Lec14	Communication and quality management in the project	2
Lec15	Summary of the lecture	2
	Total hours	30
	Classes	Number of hours
C 1	Project stakeholder management	1
C 2	Advanced risk management methods	2
C 3	Scheduling projects with limited resources	2
C 4	Cost estimation and budgeting of projects	2
C 5	Earned value method	2
C 6	Control of schedule implementation	2
C 7	Project communication management	2
C 8	Test	2
	Total hours	15
	Project	Number of
Pr1	Division into groups, project selection	hours 2
Pr2	Project charter	2
Pr3	Stakeholder analysis	2
Pr4	Risk analysis	2
Pr5	Schedule	2
Pr6	Budget	2
Pr7	Control of project implementation	2
Pr8	Control of project implementation	2
Pr9	Project selection for agile methods	2
Pr10	1. Sprint	2
Pr11	Overview and Retrospective Sprint 1	2
Pr12	2. Sprint	2
Pr13	Overview and Retrospective Sprint 2	2
Pr14	Communication in the project	2

Pr15	Presentations, summary	2			
	Total hours	30			
	TEACHING TOOLS US	ED			
	N1 Computer				
N2 Projector					
N3 Blackboard					
	N4 Paper shifts				
	N5 Attendance and activity				
	N6 Team work				
	N7 Games accessories				

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01, PEU_U02	Classes preparation, activity, team work quality
F2		Tests
F3		Workshop results
F4		Examination
P1 = 0.2*F1 + 0.8*F2		
P2 = 0.2*F1 + 0.8*F3		
P3 = F4		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE

- [1] H. Kerzner, Zaawansowane Zarządzanie projektami, Edycja polska, Onepress 2005,
- [2] R.K. Wysocki, Efektywne zarządzanie projektami, Onepress 2018
- [3] D. Skorupka, D. Kuchta, M. Górski, Zarządzanie ryzykiem w projekcie, WSOWL Wrocław 2012
- [4] Chin Garry, Agile Project Management: How to Succeed in the Face of Changing Project Requirements, AMACOM, Nowy Jork 2004.
- [5] Manifesto for Agile Software Development, http://agilemanifesto.org/
- [6] Kompendium wiedzy o zarządzaniu projektami, PMBOK Guide 2000 Edition, Warszawa 2006
- [7] Schwaber, J. Sutherland J., http://www.scrumguides.org, 2017

#### **SECONDARY LITERATURE:**

- [1] Darnall R.W., Najwspanialszy projekt świata, DIFIN, Warszawa, 2002
- [2] Young T.L., Skuteczne zarządzanie projektami, ONE Press, 2006
- [3] C.F. Gray, Project Management, 6e, The McGraw-Hill Companies, Inc., 1999

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Prof. dr hab.inż. Dorota Kuchta, Dorota.kuchta@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Zarządzanie Strategiczne Name in English: Strategic Management

Main field of study (if applicable): Management

Specialization (if applicable):

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			30	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			1	1
including number of ECTS points for practical (P) classes				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### **SUBJECT OBJECTIVES**

C1 Obtaining knowledge about strategic management

C2 Introduce instruments (strategies, models and methods), that support strategic management

C3 Acquire by students skills for practice strategic management tools

#### SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Students know the idea of strategic management

PEU\_W02 Knowledge about variety of strategies

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a strategy

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of strategic management

Relating to social competences:

## PEU\_K01 Acquire an enthusiastic approach for business activity

	PROGRAMME CONTENT				
	Lectures	Nu	mber of hours		
Lec 1	Enterprise and its market function		2		
Lec 2	Role of strategy at management of an enterprise		2		
Lec 3	Selected concepts of strategic management		2		
Lec 4	Vision, mission statement and enterprise strategic aims		2		
Lec 5	Strategic analyses of macro environment		2		
Lec 6	Methods of predict the macro environment trends		2		
Lec 7	Strategic analyses of sector environment		2		
Lec 8	Analyses of organizational resources		2		
Lec 9	Core competences strategy		2		
Lec 10	Estimation an enterprise strategic position		2		
Lec 11	Formulating a strategy and strategic choice		2		
Lec 12	Models of strategic choice		2		
Lec 13	Implementation a strategy		2		
Lec 14	Modern management concepts and strategic management		2		
Lec15	General remarks and summary		2		
	Total hours		30		
	I .		30		
	Project	Nui	nber of hours		
Proj 1	Project  Methodology of strategic process	Nui			
	-	Nui	nber of hours		
Proj 2	Methodology of strategic process	Nur	nber of hours		
Proj 2 Proj 3	Methodology of strategic process  Phases of strategy formulation process	Nui	nber of hours  1 2		
Proj 2 Proj 3 Proj 4	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy	Nur	nber of hours  1 2 2		
Proj 2 Proj 3 Proj 4 Proj 5	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue	Nur	nber of hours  1 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method	Nur	1 2 2 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research	Nur	1 2 2 2 2 2 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections	Nur	1 2 2 2 2 2 2 2 2 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections  Crediting the project	Nun	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections  Crediting the project  Total hours	Nur	1 2 2 2 2 2 2 2 15 Number of		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7 Proj 8	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections  Crediting the project  Total hours  Seminar  Genesis of strategy  Methodology of strategic process	Nur	1 2 2 2 2 2 2 2 15 Number of hours 1 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7 Proj 8  Sem 1 Sem 2 Sem 3	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections  Crediting the project  Total hours  Seminar  Genesis of strategy  Methodology of strategic process  Mission statements and strategic aims	Nun	1 2 2 2 2 2 2 2 2 15 Number of hours 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Proj 2 Proj 3 Proj 4 Proj 5 Proj 6 Proj 7 Proj 8  Sem 1 Sem 2	Methodology of strategic process  Phases of strategy formulation process  Concepts of implementation strategy  Selection of project main issue  Data gathering method  Presentation the results of research  Entry estimation. Suggestions and proposals for last corrections  Crediting the project  Total hours  Seminar  Genesis of strategy  Methodology of strategic process	Nur	1 2 2 2 2 2 2 2 15 Number of hours 1 2		

Sem 6	Estimation an enterprise strategic capacity	2
Sem 7	Models of strategic choice	2
Sem 8	Strategy implementation	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia performance
- N2. Reports
- N3. Selected statistical data

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning	Way of evaluating learning outcomes achievement
forming (during	outcomes number	
semester), P –		
concluding (at		
semester end)		
F1	PEU_W01	Estimation the student activity by checking list of
	PEU_W02	presence
	PEU_W03	(lecture, seminar, project)
	PEU_U01	
	PEU_K01	
F2	PEU_W01	Estimation the knowledge by exam, preparing the project
	PEU_W02	and seminar performance
	PEU_W03	
	PEU_U01	
	PEU_K01	
F3	PEU_W01	Assessment of creative thinking by discussion activity on
	PEU_W02	classes (lecture, project, seminar)
	PEU_W03	
	PEU_U01	
	PEU_K01	
D 0.25E1 . 0.5E2	0.0552	

#### P = 0.25F1 + 0.5F2 + 0.25F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [[1] Gierszewska G., Olszewska B., Skonieczny J., **"Zarządzanie strategiczne dla inżynierów"** PWE Warszawa 2013
- [2] **Zarządzanie strategiczne. Systemowa koncepcja biznesu**, pod red. M. Moszkowicza, PWE Warszawa 2005

#### SECONDARY LITERATURE:

- [1] Obłój K., "Pasja i dyscyplina strategii" Wydawnictwo Poltex 2010
- [2] Krawiec F., "Zarządzanie strategią firmy", Difin, Warszawa2011
- [3] Świda A., "Strategic Management", Wroclaw University of Technology, Wrocław 2011
- [4] "O strategii" Harvard Business Reviev Polska 2012
- [5] Gierszewska G., Romanowska M., "Analiza strategiczna", PWE Warszawa 2009

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zespół ds. strategii: dr inż. Piotr Kubiński, piotr.kubinski@pwr.edu.pl; dr inż. Jan Skonieczny; jan.skonieczny@pwr.edu.pl; dr inż. Adam Świda adam.swida@pwr.edu.pl;

\*delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Zarządzanie wartością przedsiębiorstwa

Name in English: Value Based Management Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0043

Group of courses: NO

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	90			60	
Form of crediting	Examination			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	3			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of methods of time value of money calculation
- 2 Knowledge of the basic financial statements
- 3 Ability to perform simple mathematical calculations

#### **SUBJECT OBJECTIVES**

- C1 Concept of organization value and the factors influencing the value
- C2 Understanding the purpose and function of the organization valuation
- C3 Knowledge of methods of organization valuing and use them in the management process

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 knows the objectives and functions of the valuation

PEU\_W02 knows methods of company valuation

PEU\_W03 knows the tools of value pricing and their use in management

relating to skills:

PEU\_U01 understand the objectives of the company value pricing

PEU\_U02 can use assets valuation methods to company valuation

PEU\_U03 can develop a financial model and prepare a company value by income methods,

#### including DCF

relating to social competences:
PEU\_K01 Is conscious the role of company value in the economy

Lectures			mber of hours
Lec 1 Introduction	n. The concept of value and the company value		2
Lec 2 The object:	ives and functions of the pricing process		2
Lec 3 Classificati	on of the factors of values		2
Lec 4 Classificati	on of methods of pricing		2
Lec 5 Assets and	Comparative Methods		2
Lec 6 Income me	2 Income methods 2		2
Lec 7 Value base	d management process	2	
Lec 8 test		1	
Total hours	S		15
	Project		Number of hours
Proj 1 Introduct	ion		2
Proj 2 Valuation	n of the selected company by assets method		6
Proj 3 Valuation	n of the selected company by DCF method		6
Proj 4 Presentat	ion of results		1
Total hou	ırs		15
	TEACHING TOOLS USED		

- N2. Problems resolving
- N3. Computational exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEK_W03, PEU_U01 ÷ PEK_U03, PEU_K01	Exam
Pr1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Project evaluation
P1		

#### PRIMARY LITERATURE:

- [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa, 1995.
- [2] ICKIEWICZ J., Strategia finansowania przedsiębiorstwa, Poltext, Warszawa, 1993.
- [3] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [4] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

#### SECONDARY LITERATURE:

- [1] [JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting, AE, Wrocław 1994.
- [2] Pluta W., Strategie inwestowania, Wyd. PLACET, Warszawa, 1995.
- [3] Levy H., Sarnat M., *Capital investment and Financial Decisions*, Prentice Hall, Hrertforshire, 1994
- [4] LUMBY S., *Investment Appraisal and Financial Decisions*, London, Chapman & Hall, 1996
- [5] Cwynar A., Systemy VBM i zysk ekonomiczny : projektowanie, wdrażanie, stosowanie, 2010
- [6] Damodaran A., Finanse korporacyjne : teoria i praktyka 2007

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Zespołami Ludzkimi

Name of subject in English: Team management Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0106

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,,,				0,7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about the principles of group functioning
- C2 Understanding the role of the leader in the group
- C3 Acquiring knowledge about the possibilities of using HRM tools for group management
- C4. Acquiring the ability to manage a task group

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student knows the basic principles of group functioning

PEU W02 Student knows what team management is like

relating to social competences:

PEU\_K01 Is able to set priorities in own work and in cooperation with others, is able to interact and work in a group

PEU\_K02 Is able to influence the members of the group in order to perform the task effectively

PEU\_K03 Apply adequate motivational and communication tools in the work of a leader

	Lectures	Number of hours
Lec 1	Why are groups so important for everyone?	1
Lec 2	The process of group formation and group dynamics	2
Lec 3	Authority and leadership	2
Lec 4	The role of the leader in the group	2
Lec 5	Composing teams by a leader	2
Lec 6	The use of HRM tools for effective group management	2
Lec 7	Social identity, intergroup attitudes	2
Lce 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Seminar  Introduction. Features of an effective leader	
Sem 2	Introduction. Features of an effective leader	hours 1
Sem 2 Sem 3	Introduction. Features of an effective leader Identifying your strengths in team roles	hours 1 2
Sem 2 Sem 3 Sem 4	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A	hours 1 2
Sem 2 Sem 3 Sem 4 Sem 5	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation – leader B	hours 1 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C	hours 1 2 2 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C Team work simulation - leader D	hours 1 2 2 2 2 2
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Introduction. Features of an effective leader Identifying your strengths in team roles Team work simulation - leader A Team work simulation - leader B Team work simulation - leader C Team work simulation - leader D Team work simulation - leader E	hours  1 2 2 2 2 2 2 2 2 2

#### N1. Lecture

- N2. Group exercises
- N3. Simulations
- N4. Team work

# N5. Discussion of problems and results of works N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

	C	Way of evaluating learning outcomes achievement
concluding (at semester end)		
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
groups	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEK_K02	Oral feedback. Work evaluation
C Student analytical report, fi	inal test	

#### PRIMARY AND SECONDARY LITERATURE

#### **PRIMARY LITERATURE:**

- 1. Belbin, M. (2009). Zespoły zarządzające. Sekrety ich sukcesów i porażek. Warszawa: wyd. Kluwer
- 2. Lencioni P. (2016). Pięć dysfunkcji pracy zespołowej. Gdańsk: GWP
- 3. Duhigg Ch. (2016). Mądrzej, szybciej, lepiej. Warszawa: PWN
- 4. Kożusznik, B. (2005). Wpływ społeczny w organizacji. Warszawa: PWE

#### **SECONDARY LITERATURE:**

- 1. Cialdini R. (2016). Wywieranie wpływu na ludzi. Teoria i praktyka. Gdańsk: GWP
- 2. Stephan, W., Stephan, C. (2007). Wywieranie wpływu przez grupy. Gdańsk: GWP

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska <u>anna.borkowska@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Zintegrowane systemy informatyczne zarządzania Name of subject in English: Integrated Management Information Systems

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0036

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	60		30		
Form of crediting	Examination		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		0,7		

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

- 1. theory of organisation and management
- 2. essentials of enterprise management
- 3. basics of computer science

#### SUBJECT OBJECTIVES

- C1 Knowledge of integrated management information systems (IMIS)
- C2 Ability to use ERP IMIS
- C3 Knowledge of the implementation of IMIS

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 - knowledge of MIS classifications

PEU\_W02 – knowledge of rules of MIS integration

PEU\_W03 – knowledge of basic functions in business areas of MIS

PEU\_W04 – knowledge of MIS history and new approaches

PEU\_W05 – knowledge of the MIS implementation in the organization

PEU\_W06 – knowledge of rules of selecting MIS

PEU\_W07 – knowledge of human aspects of the MIS implementation

PEU\_W08 – knowledge of gathering requirements before the MIS implementation (e.g. business process modeling)

PEU\_W09 – knowledge of risk factors in the MIS implementation

#### relating to skills:

PEU\_U01 – ability to classify a MIS

PEU\_U02 – ability to find differences between MRP – MRPCL – MRPII – MRPIII – ERP – ERPII

PEU\_U03 – ability to plan implementation of MIS

PEU\_U04 – ability to find and minimalize risk factors during the MIS implementation

PEU\_U05 – ability to set goals for the MIS implementation

PEU\_U06 – ability to plan trainings for users of MIS

PEU\_U07 – ability to analyze functionality of ERP system

PEU\_U08 – ability to model business process

PEU\_U09 – ability to prepare and present own approach to the MIS implementation

#### relating to social competences:

PEU\_K01 – ability to searching for information and analyzing

PEU\_K02 – developing ability to think independently and creatively

PEU\_K03 – understand the importance of business requirements in the design and implementation of information systems

PEU\_K04 – developing entrepreneurial thinking

PEU\_K05 – developing the skills of group working

PROGRAMME CONTENT				
	Number of hours			
Lec 1	ec 1 Introduction			
Lec 2	Management Information Systems	2		
Lec 3	Typology of informational systems at the angle of primary criterions. Types MPR II/ERP.	2		
Lec 4	APICS standards (MRP, MRPII)	2		
Lec 5	Classification of integrated systems according to APICS standards (MRP, MRP-CL, MRPII, MRPII+/MRPIII)	2		
Lec 6	ERP systems	2		
Lec 7	ERP II systems	2		
Lec 8	CRM and PRM systems	2		
Lec 9	Service Oriented Architecure (SOA) and mobile technologies in management	2		
Lec 10	General characteristics of management information system sets	2		
Lec 11	Informatics strategies of enterprise management	2		
Lec 12	Choosing and implementation of system set	2		
Lec 13	Training and coaching during IMIS implementation	2		
Lec 14	Implementation risks	2		
Lec 15	Conclusion	2		
	Total hours	30		
Form of classes - laboratory		Number of hours		
Lab 1 Ir	Lab 1 Introduction to ERP system			
	eneral settings	2		
Lab 3 C	alculation of product's costs	2		

Lab 4	Purchasing orders (PO)	2
Lab 5	Work orders (WO)	2
Lab 6	MRP planning	2
Lab 7	Analysis of selected area of ERP system	2
Lab 8	Conclusion	1
	Total hours	15

#### TEACHING TOOLS USED

- N1. Traditional lecture
- N2. Using MIS tool
- N3. Work with the teacher
- N4. Self-learning for labs
- N5. Self-learning for lectures

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W09 PEU_U01–PEU_U06 PEU_K01 PEU_K03	test
F2	PEU_U07 -PEU_U09 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the seminar and lab work

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Jerzy Kisielnicki: MIS Systemy informatyczne zarządzania, PLACET, 2009
- [2] Zbigniew Klonowski: Systemy informatyczne zarządzania przedsiębiorstwem : modele rozwoju i właściwości funkcjonalne, Oficyna Wydawnicza Politechniki Wrocławskiej, 2004
- [3] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [4] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [5] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

#### SECONDARY LITERATURE:

- [1] Czasopismo Computerworld
- [2] Czasopismo Teleinfo
- [3] Materiały szkoleniowe dostawcy wybranego systemu klasy ERP

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Analiza i prezentacja danych biznesowych

Name of subject in English: Business Intelligence Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0058

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of standard techniques and tools of data analysis
- 2. Experience in spreadsheet modelling with Excel

#### **SUBJECT OBJECTIVES**

C1 introducing business analytics, data-driven approaches for solving business problems, fundamentals of creating managerial dashboards

C2 practical introduction to Self-Service Business Intelligence – tools and techniques of simple data analysis and visualisations for solving managerial decision problems

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - knows the subject matter and techniques used in data analysis, business analytics and business intelligence

PEU\_W02 - distinguishes and characterizes basic categories of information technologies used in business analytics for data analysis, as well as data visualisation and presentation

relating to skills:

PEU\_U01 - can apply selected techniques for business data exploratory analysis and preprocessing for a particular decision problem

PEU\_U02 - can apply selected information technologies of available analytical packages for

creating managerial dashboards

relating to social competences:

PEU\_K01 - can interact and work in a team to solve a specific task with a clear distinction of the role of and input by individual members of the project team

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to business analytics: data - information - knowledge	1
Lec 2	Descriptive, predictive, and prescriptive business analytics	2
Lec 3	Selected analytic concepts: relations, data models, KPI, maps	2
Lec 4	Creating managerial dashboards	2
Lec 5	Introduction to Visual analytics. Introduction to Tableau	2
Lec 6	CRISP methodology, exploratory analysis and preprocessing	2
Lec 7	Selected problems and technologies of business analytics	3
Lec 8	Test	1
	Total hours	15
	Laboratory	Number of hours
Lab 1	Discussion of laboratory tasks and software	1
Lab 2	Managerial dashboards concepts and tools	2
Lab 3	Developing managerial dashboards in Excel and Power Pivot	3
Lab 4	Developing managerial dashboards in Tableau Desktop	3
Lab 5	Advanced techniques for managerial dashboards	4
Lab 6	Lab test; optional presentation and discussion of the results of group projects	2
	Total hours	15

# TEACHING TOOLS USED

- N1. Multimedia presentations
- N2. Teaching materials published on WUST eportal
- N3. Standard office software packages (Excel, Power Pivot)
- N4. Tableau Desktop
- N5. Optional other analytical packages for group projects (e.g. Power BI, SAS Visual Analytics, Qlik View)

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes number	Way of evaluating learning outcomes
(during semester), P –		achievement
concluding (at semester		
end)		
F1 (computer lab)	PEU_U01 to PEU_U02	On-going assessment of lab work
F2 (computer lab)	PEU_U01 to PEU_U02	Assessment of group projects (optional)
P1 (computer lab)	PEU_U01 to PEU_U02	Test (computer-based tasks)

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Winston W.L. (2019) Microsoft Excel 2019 : analiza i modelowanie danych biznesowych, Promise
- [2] Alexander M., Decker J., Wehbe B. (2015) Analizy Business Intelligence. Zaawansowane wykorzystanie Excela, Helion
- [3] Walkenbach J., Alexander M. (2014) Analiza i prezentacja danych w Microsoft Excel [Excel dashboards and reports], Helion
- [4] Larose D.T. (2006) Odkrywanie wiedzy z danych: wprowadzenie do eksploracji danych, WN PWN

# SECONDARY LITERATURE:

- [1] Analytics e-periodical, issued by the Institute for Operations Research and the Management Sciences (INFORMS) www.analytics-magazine.org
- [2] Analytics, Data Science, and Artificial Intelligence: Systems for Decision Support, R. Sharda, D. Delen, E. Turban, Pearson 2020
- [3] Collie R., Jelen B. (2015) Power Pivot dla Excela. Zaawansowane mozliwości, Helion
- [4] Foreman J.W. (2017) Mistrz analizy danych. Od danych do wiedzy, Helion
- [5] Provost F., Fawcett T. (2015) Analiza danych w biznesie. Sztuka podejmowania skutecznych decyzji, Helion
- [6] Surma J. (2009) Business Intelligence. Systemy wspomagania decyzji biznesowych, WN PWN
- [7] Raport Gartner Magic Quadrant Analytics and Business Intelligence Platforms, 2020, www.gartner.com
- [8] raporty The Forrester Wave (Self-Service Business Intelligence Platforms, Q2 2012; Enterprise Business Intelligence Platforms, Q1 2015, Enterprise Insight Platforms 2019), www.forrester.com

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marek Lubicz; <u>marek.lubicz@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Badania Operacyjne Name of subject in English: Operations Research Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0037

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Examination		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in algebra and logic
- 2. Basic skills in computer programming

#### SUBJECT OBJECTIVES

- C1. Showing students the basic optimization problems such as: linear programming, integer programming and network flow problems; indication of the practical applications of these problems.
- C2. Showing students the basic methods of solving the above problems.
- C3. Acquisition by students of the ability to identify decision variables, input data and objectives in practical decision situations and build a mathematical programing model.
- C4. Acquisition by students of the ability to interpret the solutions of the optimization models.
- C5. Presenting the software for solving optimization problems.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Has specialist knowledge of the basic methods used in operational research.

relating to skills:

PEU\_U01 - Is able to apply operational research methods as a tool supporting advanced decision-making analyzes.

PEU\_U02 - Is able to use specialized software for building and solving optimization models.

#### PROGRAM CONTENT Number of Lectures hours Operations research methodology; linear programming problem and its 1 Lec 1 applications. Graphical method and the simplex algorithm for linear programming. 2 Lec 2 2 The simplex algorithm and sensitivity analysis for linear programming. Lec 3 Integer programming and its applications. 2 Lec 4 Branch and bound algorithm for integer programming. 2 Lec 5 Basic network problems, part I (the shortest path and and maximum flow 2 Lec 6 problems). Basic network problems, part II (transportation problem). 2 Lec 7 Multicriteria programming – applications and solution methods. 2 Lec 8 15 **Total hours** Laboratory Number of hours Introduction. Presentation of optimization software. Graphical method of solving Lab 1 linear programming problems. 2 Lab 2 Building and solving linear programming models for practical problems. Lab 3 Building and solving linear programming models for practical problems. 2 Lab 4 Building and solving linear programming models for practical problems. 2 Lab 5 Building and solving linear programming models for practical problems. 2 Solving linear programming problems by using the simplex algorithm. Sensitivity Lab 6 2 analysis in linear programming. Building and solving integer programming models for practical problems. 2 Lab 7 Building and solving integer programming models for practical problems. 2 Lab 8 2 Lab 9 Building and solving integer programming models for practical problems. Lab 10 Solving integer programming problems using the branch and bound algorithm. 2 Lab 11 Building and solving network flow models for practical problems. 2 Lab 12 Building and solving network flow models for practical problems. 2 Lab 13 Building and solving network flow models for practical problems. 2 Lab 14 Preparation for the test. 2

#### TEACHING TOOLS USED

30

N1. Presentation

Lab 15 Written test.

Total hours

- N2. Solving tasks
- N3. Using optimization software

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(duffing sefficater), I	number	
concluding (at semester		
end)		
P	PEU_W01	Examination
	PEU_U01 PEU_U02	Written test
P=1		

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] H. Taha. Operations research. An introduction. Prentice Hall 2011
- [2] F. S. Hiller, G. J. Liberman. Introduction to operations research. Mc Graw Hill 2003
- [3] W. L. Winston. Operations research: applications and algorithms. PWS-KENT Publishing Company 1987
- [4] H. Wagner. Badania operacyjne. PWE Warszawa 1980.

# SECONDARY LITERATURE:

- [1] H. P. Williams. Model building in mathematical programming. Wiley 1990.
- [2] R.K. Ahuja, T. L. Magnanti, J. B. Orlin. Network flows: theory, algorithms and applications. Prentice Hall, Inc., 1993
- [3] R.S. Garfinkel, G. L. Nemhauser. Programowanie całkowitoliczbowe. PWN, 1978
- [4] M. S. Bazaraa, J. J. Jarvis, H. D. Sherali. Linear programming and network flows. Wiley 2010.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Controlling Name in English: Controlling

Main field of study (if applicable): Zarządzanie (Management)

Specialization (if applicable): -

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0038

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	60			60	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	2			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management and the fundamentals of accountancy.

### **SUBJECT OBJECTIVES**

- C1 To provide the students with the fundamental knowledge about the essence of controlling.
- C2 To provide the students with the knowledge about the functional and organizational solutions of controlling.
- C3 To provide the students with the knowledge about the essence of basic tools of controlling as well as the scope of their use.
- C4 Shaping and developing the ability of evaluation the achievements of the organization in conjunction of the implementation of controlling.
- C5 Shaping and developing the ability of evaluation and improvement of existing or designing new functional, organizational and instrumental solutions of controlling in chosen organization.
- C6 Shaping the competences of planning, initiating and implementing the changes in the organization.
- C7 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

- PEU\_W01 Has a knowledge abort the essence of controlling. Understands the importance of restructuring processes related to the implementation of controlling in the organization.
- PEU\_W02 Knows the components and functions of controlling. Has a knowledge about the controlling concepts.
- PEU\_W03 Knows the organizational solutions of controlling, including the solutions relating to the controllers and responsibility centers . Knows the factors influencing the formation of organizational solutions of controlling.
- PEU\_W04 Has knowledge about the tools of controlling, including the controlling profit and loss account, budgeting, information and reporting system, methods of measurement and evaluation of organization performance.

#### relating to skills:

- PEU\_U01 Can evaluate the organization performance relating to the implementation of controlling.
- PEU\_U02 Can evaluate and improve the existing or design the new solutions of controlling relating to the concept of controlling, controllers (including them responsibilities, rights and liabilities) and responsibility centers.
- PEU\_U03 Can evaluate and improve the existing or design the new solutions of controlling relating to the chosen tools of controlling.

### relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction, overview of the lecture.	1
Lec 2	The essence and the features of controlling. Concepts of controlling.	2
Lec 3	Components and functions of controlling.	1
Lec 3	Requirements for controlling implementation and functioning. Factors influencing the shape of solutions of controlling.	1
Lec 4	Organization of controlling. Defining the controlling responsibility centers.	2
Lec 5	Profit and loss account in controlling.	2
Lec 6	Budgeting in controlling.	2
Lec 7	Information and reporting system in controlling.	2
Lec 8	Summary (controlling developement trends). Colloquium.	2
	Total hours	15
	Project	Number of hours
	Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams. Distribution of the survey questionnaires and discussion on it. Detailed explanation of the task 1: the method of the general characteristics of the organization, including the method of presentation of basic information about the organization, its organizational structure, human potential, and identification of its environment.	2

	TEACHING TOOLS USED	
	Total hours	15
Proj 7	Summary of project. Final assessment.	1
Proj 6-7	Presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
Proj 5	Explanation of the presentation of the project. The consultation of the task 4: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 4	Detailed explanation of the task 4: formation (b) or improvement (a) instrumental solutions of controlling for the chosen organization (including solutions relating to Profit and loss account in controlling, budgeting, information and reporting system in controlling and methods of measurement and evaluation of organization performance). The consultation of the task 3: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 3	Detailed explanation of the task 3: formation (b) or improvement (a) organizational solutions of controlling for the chosen organization (including solutions relating to the controlling concept, its organization and responsibility centers). The consultation of the task 2: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 2	Detailed explanation of the task 2: in the diagnosis of existing solutions of controlling in analyzed organization (for two situations: a) when controlling is implemented in the organization, and b) if controlling solutions are not implemented in the organization). Declaration of the chosen object. Consultation of the task 1: work in project teams - consulting the substantive issues, evaluation of student progress.	2

- N1. Traditional lecture with multimedia presentations
- N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation
  N6. A written report an analysis of the case study

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04	Colloquium.
F2	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Project of controlling solutions (written report).
F3	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Multimedia presentations relating to controlling solutions prepared by students
F4	PEU_U01, PEU_U02	Activity on the project. Participation in the discussion.

	PEU_U03, PEU_K01	
	PEU_K02, PEU_K03	
P(lecture)=F1		

P(project)=0.7\*F2+0.2\*F3+0.1\*F4

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Marciniak S., Controlling. Teoria, zastosowania, Difin, Warszawa 2008.
- Vollmuth H. J., Controlling. Planowanie, kontrola, kierowanie, Agencja Wydawnicza "Placet", Warszawa 2000.
- Nowosielski S. Centra kosztów i centra zysku w przedsiębiorstwie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2001.
- Goliszewski J., Controlling. Koncepcja, zastosowania, wdrożenie, Oficyna Wolters Kluwer business, Warszawa 2015.
- 5. Kuc B.R., Kontroling dla menedżerów, wyd. Helion, Gliwice 2011.
- Bieńkowska A., Kształtowanie rozwiązań i wzorce controllingu w organizacji, Oficyna Wydawnicza PWr, Wrocław 2015.

# SECONDARY LITERATURE:

- 1. Controlling w działalności przedsiębiorstwa, pod red. E. Nowaka, PWE, Warszawa 2004.
- 2. Sierpińska M., Niedbała B. Controlling operacyjny w przedsiębiorstwie, PWN, Warszawa 2003.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, <u>agnieszka.bienkowska@pwr.wroc.pl</u> in cooperation:

Anna Zabłocka-Kluczka, <u>anna.zablocka-kluczka@pwr.wroc.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: E-gospodarka
Name of subject in English: E-economy

Main field of study (if applicable): Management

Specialization (if applicable): Information Technology in Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory
Subject code: W08ZZZ-SM0060

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. General knowledge about company management.
- 2. Basic knowledge about the Internet and web services.

#### **SUBJECT OBJECTIVES**

C1 To prepare students (to give them the foundations of technical, legal and economic infrastructure) for starting business activity using modern technologies and for using them safely in everyday life.

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 student has structured knowledge concerning electronic economy (foundations of technical, legal and economic infrastructure).

PEU\_W02 student knows the opportunities of electronic economy implementation, its potential chances, threats and possibilities of theirs minimisation.

PEU W03 student knows current state and trends of e-economy in Poland and in the world.

relating to skills:

PEU\_U01 student is able to plan the start of running a business on the basis of appropriate technologies connected with the electronic economy.

PEU\_U02 – student is able to identify and then to minimise problems and threats concerning particular technologies application.

relating to social competences:

PEU\_K01 student is aware of the importance of electronic economy tools in business and in everyday life.

#### PROGRAM CONTENT Number of Lectures hours Presentation of the subject, requirements and rules of credit receiving. Lec 1 1 Internet – core information (history, users, basic terms). Lec 2 2 The models of e-business. 2 Lec 3 E-commerce on the B2B, B2C and C2C markets. 2 Lec 4 2 Business platforms. Mobility. Lec 5 e-documents, e-government 2 Lec 6 A future of e-business – the development directions. 1 Lec 7 Lec 7 1 Test 2 Lec 8 Subjects additional. Retake 15 Total hours Number of Classes hours Presentation of the requirements and rules of credit receiving. Cl 1 1 C1 2 Legal regulations in the e-business. Digital product. 2 C1 3 Online shops – the elements necessaire and optional, working principles, 2 examples, technologies applied, examples. Cl 4 Logistics of the e-business. 2 C1 5 Marketing of the e-business. Cl 6 e-payments, security of the e-economy. C1 7 Opportunities and threats concerning e-business. New technologies. e-2 medicine. C1 8 Presentation of the reports, discussion. 2 Total hours 15

#### TEACHING TOOLS USED

- N1. Discussion.
- N2. Students' unassisted work.
- N3. Multimedia presentation.
- N4. Traditional lecture with presentation and videos.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning outcomes	Way of evaluating learning outcomes achievement
forming (during	number	

semester), P – concluding (at semester end)		
FC1	PEU_U01, PEU_U02	report
FC2	PEU_U01, PEU_U02	presentation
FC3	PEU_U01, PEU_U02	activity
FL1	PEU_W01- PEU_W03	test

PC = x\*FC1+y\*FC2+z\*FC3

PL=FL

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] M. Dutko: E-biznes: poradnik praktyka, Helion, Gliwice 2013.
- [2] T. Ejtminowicz i inni: Technologia w e-commerce. Teoria i praktyka. Poradnik menedżera, Helion, Gliwice 2013.
- [3] C.M. Olszak, E. Ziemba (red.), Strategie i modele gospodarki elektronicznej, PWE, Warszawa 2007.
- [4] J. Skorupska: E-commerce. Strategia, Zarządzanie, Finanse, Wydawnictwo Naukowe PWN, Warszawa 2017.
- [5] P. Tomasik, S. Dobrzyński, L. Kępa: Bezpieczeństwo systemu e-commerce, czyli jak bez ryzyka prowadzić biznes w Internecie, Helion, Gliwice 2012.

#### SECONDARY LITERATURE:

- [6] D. Chaffey, E-business and e-commerce management: strategy, implementation and practice, Harlow: Prentice Hall 2016.
- [7] T. Doligalski: Modele biznesu w Internecie. Teoria i studia przypadków polskich firm, Wydawnictwo Naukowe PWN, Warszawa 2014.
- [8] M. Dutko (red.), Prawo w e-biznesie. Wszystko, co musisz wiedzieć, żeby prowadzić e-biznes i spać spokojnie, Helion, Gliwice 2015.
- [9] C. Żurak-Owczarek, Technologie informacyjne determinantą współczesnego biznesu, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2011.
- [10] Strony internetowe np. GUS, WorldStats.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Ewa Pralat, <u>ewa.pralat@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Ekonomiczne otoczenie biznesu Name of subject in English: Economic environment of business

Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0094

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	· · · · · · · · · · · · · · · · · · ·	0,7			

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of microeconomics
- 2. Knowledge of enterprise organization and markets

### **SUBJECT OBJECTIVES**

- C1 Knowledge and understanding of the economic environment
- C2 Understanding, how the formal regulations and economic environment affects companies and their strategic choices
- C3 Ability to identify and analyze the influence of market conditions on business decisions.

# SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 —Has a well-structured knowledge of the economic and law conditions affecting business decisions, in the context of innovative projects

PEU\_W02 – Understands the strategic context of companies operations relating to skills:

PEU\_U01 – Can define, analyze and apply the effective tools and regulations (economic and law) in order to solve problems associated with entering new sectors.

PEU\_U02 – Can use proper sources of information about market regulations, which affect company activities on the markets.

relating to social competences:

PEU\_K01 –Is prepared for proposing changes in a company on a basis of his/her knowledge

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction and basic concepts of the economical and law environment of companies	2
Lec 2	Macroeconomic conditions and their components: political, legal, technological, social, cultural, economic and demographical	2
Lec 3	Competition and analysis of a a market position of competitors; benchmarking	2
Lec 4	Analysis of market conditions	3
Lec 5	Inner and outer sources of company financing/funding.	4
Lec 6	Test	2
	Total hours	15
	Classes	Number of hours
Cl 1	Sources of information about a business environment	2
C1 2	Analysis of economic conditions	2
C1 3	Sources of company funding and financing the business development	3
Cl 4	Analysis of market conditions	2
Cl 5	Analysis of financial situation	4
Cl 6	Test	2
	Total hours	15

# TEACHING TOOLS USED

# Lectures

- N1. Informative lecture
- N2. Multimedia presentation
- N3. Problem lecture

#### Classes

- N1. Exercises
- N2. Discussion

# EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P –		Way of evaluating educational effect achievement
concluding (at semester		
end)		
F	PEU_W02	Participation in discussion
	PEU_U01	Exercises and presenting a report
	PEU_U02	Participation in discussion
	PEU_K01	
P	PEU_W01	Passing on the basis of a test

PEU_W02	
PEU_U01	

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] J. Butra i inni. Przedsiębiorstwo i jego otoczenie w gospodarce rynkowej. PAN, Kraków 1999.
- [2] G. Gierszewska, M. Romanowska. Analiza strategiczna przedsiębiorstwa. PWE Warszawa 2002.

# SECONDARY LITERATURE:

[1] Jak zwiększyć konkurencyjność firmy na rynku Unii Europejskiej, Ernst&Young, Warszawa 2003

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr hab. inż. Małgorzata Rutkowska, malgorzata.rutkowska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: E-marketing Name of subject in English: E-marketing

Main field of study (if applicable): Management

Specialization (if applicable): Information Technology in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0062

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade*	crediting with grade*			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essential knowledge of marketing concept

### **SUBJECT OBJECTIVES**

C1 Gaining knowledge about modern marketing issues in the Internet and digital media

C2 Acquiring analytical and planning skills for marketing activities in digital and global media environment

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Ability to identify and explain the role of technological and social developments in the creation of marketing strategies

PEU\_W02 Knowing of the methods and techniques for analysis and planning of modern marketing activities

relating to skills:

PEU\_U01 Ability to plan and execute the marketing activities with the use of modern media

PEU\_U02 Ability to use modern marketing tools and coordinate global marketing activities in digital media

relating to social competences:

PEU\_K01 Awareness of cross-cultural differences in business

	Lectures	
Lec 1	Evolution of the modern marketing	1
Lec 2	The influence of the information society	2
Lec 3	Product policy in the Internet	2
Lec 4	Pricing strategies	2
Lec 5	Distribution and e-commerce	2
Lec 6	Promotion in digital media	2
Lec 7	Cross-cultural e-marketing	2
Lec 8	Test	2
	Total hours	15
	Classes	Number of hours
Cl 1	Introduction	1
C1 2	Product strategies analysis	2
C1 3	Pricing strategies analysis	2
Cl 4	Distribution strategies analysis	2
Cl 5	Promotion strategies analysis	2
Cl 6	Marketing-mix analysis	2
Cl 7	International strategies analysis	2
Cl 8	Cross-cultural strategies analysis	2
	Total hours	15
	TEACHING TOOLS USED	
N2. Μι	Formative lecture altimedia presentation	

- N3. Problem based lecture
  N4. Case studies
  N5. Group work
  N6. Discussion

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1 (lecture)	PEU_W01, PEU_W02, PEU_K01	test
F1 (project)	PEU_U01, PEU_U02, PEU_K01,	presentation
F2 (project)	PEU_U01, PEU_U02, PEU_K01,	report
P2 (project) = $0.5*F1$	+0.5*F2	•

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Agnieszka Izabela Baruk, Katarzyna Hys, Adam Dzidowski, Marketing dla inżynierów, PWE, 2012
- [2] Dominik Kaznowski, Nowy marketing w internecie, Difin, 2007
- [3] Mirosław Pacut, Krystyna Śliwińska, Narzędzia i techniki komunikacji marketingowej XXI wieku, Wolters Kluwer Polska, 2011

# SECONDARY LITERATURE:

[1] Andrzej Limański, Ireneusz Drabik, Marketing międzynarodowy, Difin, 2010

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Dzidowski, adam.dzidowski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Fizyka Środowiska Pracy II Name of subject in English: Work Environment Physics II

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0029W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠				

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic mathematical and statistical skills (verified by maturity exam or higher).

A course in physics (or equivalent) completed at 1<sup>st</sup> level of studies.

#### SUBJECT OBJECTIVES

- C1: Acquisition of specialist knowledge of the physical factors of the work environment affecting the employee, necessary in processes of manufacturing and human resource management.
- C1.1: Gaining knowledge of the physical aspects of the work environment: the reasons for the impact of physical factors on the employee, how they interact, potential psychophysical effects and ways to minimize their negative impact.
- C1.2: Acquiring knowledge about the ergonomic optimization of working conditions using chosen methods and tools for measuring, assessment and design the physical work environment, taking into account the physical, sensory and mental capabilities and limitations of the employee.

#### SUBJECT LEARNING OUTCOMES

In the field of knowledge:

PEU\_W01: student knows the individual physical factors of the work environment; knows for what reasons (physical, anatomical, physiological, psychological) and how

they affect people in the work process.

PEU\_W02: student knows the chosen methods and tools for measuring and assessing these factors, as well as for designing and optimizing the physical work environment in accordance with an ergonomic approach.

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction. Physical work environment as part of the human-machine- environment system. Review of physical factors affecting man in the work process. An ergonomic approach in the design and assessment of the working environment.	2
Lec 2	Microclimate. Thermodynamics of the human body. Effects of thermal homeostasis disorder. Thermoregulatory mechanisms of physical and biochemical nature. Thermal insulation parameters of clothing as a barrier between man and thermal environment. Microclimate evaluation methods.	2
Lec 3	Lighting. Structure of the eye's optical path. Signal processing by the neural system. Characteristics of perception of brightness, color and geometric patterns. Requirements related to ensuring appropriate conditions for visual work. The use of color models in the design of the visual environment.	2
Lec 4	Noise. Hearing structure and its influence on hearing ability. Perception of pitch and loudness of sound as examples of phenomena subject to Weber-Fechner and Stevens laws. Noise as a harmful factor and stressor; physiological and psychological effects of being in noise. Organizational and technical measures to minimize exposure to noise in the workplace.	2
Lec 5	Spatial relations between a man and the workplace. Impact of mismatch of the position to the anthropometric features of the employee on the enforcement of body posture in biomechanical terms. Location of signaling and control devices. Application of Fitts law in human-machine interface design.	2
Lec 6	Methodology of researching the impact of the physical work environment on humans. 1. Psychophysical approach in measuring the subjective perception of physically measurable stimuli. The use of questionnaire methods and AHP approach in research and measurement of a subjective nature.	2
Lec 7	Methodology of researching the impact of the working environment on humans. 2. Designing a factor experiment. Application of statistical methods in data analysis.	2
Lec 8	Final test	1
	Total hours	15

# N1. Lecture with slides and multimedia materials

- N2. Consultations
- N3. Own student work independent literature studies and preparation for the final test

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

· E	Learning outcomes number	Way of evaluating learning outcomes achievement
,	PEU_W01	Written final test
	PEU_W02	
С		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [2] Halliday D., Resnick R., Walker J., Podstawy fizyki, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [3] Hecht E., Optyka, Wydawnictwo Naukowe PWN, Warszawa 2012
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- [5] Jóźwiak J., Podgórski J., Statystyka od podstaw, Polskie Wydawnictwo Ekonomiczne, Warszawa 2012
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- [7] Materiały dla studentów na stronie Laboratorium Ergonomii Wydziału Informatyki i Zarządzania PWr, http://ergonomia.ioz.pwr.edu.pl/
- [8] Ozimek E., Dźwięk i jego percepcja. Aspekty fizyczne i psychoakustyczne, Wydawnictwo Naukowe PWN, Warszawa 2002
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- [10] Taylor J.R., Mechanika klasyczna, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [11] Traczyk W.Z., Trzebski A. (red.), Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej, Wydawnictwo Lekarskie PZWL, Warszawa 2015
- [12] Wykowska M., Ergonomia jako nauka stosowana, Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2009

# SECONDARY LITERATURE:

- [1] Alton Everest F., Pohlmann K.C., Podręcznik akustyki, Wydawnictwo Sonia Draga, Katowice 2013
- [2] Bell P.A., Greene T.C., Fisher J.D., Baum A., Psychologia środowiskowa, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2004
- [3] Brzeziński J., Metodologia badań naukowych i diagnostycznych [w:] Psychologia. Podręcznik akademicki, t. 1: Podstawy psychologii, Strelau J. (red.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000
- [4] Internetowy Podręcznik Statystyki, StatSoft, http://www.statsoft.pl/textbook/
- [5] Jorasz U., Wykłady z psychoakustyki, Wydawnictwo Naukowe UAM, Poznań 1998
- [6] Kabza Z., Kostyrko K., Metrologia mikroklimatu pomieszczenia i środowiskowych wielkości fizycznych. cz. 1 i 2, Oficyna Wydawnicza Politechniki Opolskiej, Opole 2003/2004
- [7] Karwowski W. (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis, 2001
- [8] Malinowski A., Bożiłow W., Podstawy antropometrii. Metody, techniki, normy, Wydawnictwo Naukowe PWN, Warszawa 1997
- [9] Młodkowski J., Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN, Warszawa 1998
- [10] Rejmer K., Ciepło zimno czyli termodynamika fenomenologiczna, Wydawnictwo Sorus, Poznań 2013
- [11] Śliwowski L., Mikroklimat wnętrz i komfort cieplny ludzi w pomieszczeniach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2000

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Jach, katarzyna.jach@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Jakość produktu informatycznego

Name of subject in English: Software Product Quality Main field of study (if applicable): Management

Specialization (if applicable): Information Technology in Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0066

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			0,7		

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Understands and knows how IT systems are functionning.
- 2. Have the basic knowledge of statistical methods

#### **SUBJECT OBJECTIVES**

C1. Acquisition of knowledge about providing, testing and assessing the quality of IT solutions.

C2. Practical application of knowledge to assess the quality of IT products

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – has structured knowledge of methods for providing, testing and evaluating software quality

PEU\_W02 – knows the attributes and measures of software quality

relating to skills:

PEU\_U01 – can identify factors affecting the efficiency and effectiveness of the graphical interface functionality

PEU\_U02 - have the ability to use the KLM model to assess the effectiveness of the computer interface

- PEU\_U03 is able to put into practice heuristic methods for assessing graphic interfaces
- PEU\_U04 is able to put into practice the Fitts' law to evaluate the graphic interface operation time
- PEU\_U05 have the ability to use the task analysis method to optimize the interface
- PEU\_U06 can use the possibilities of the "visual" programming environment to make a working prototype of an interactive system
- PEU\_U07 have the ability to evaluate and modify in practice IT products according to the results of analyzes
- PEU\_U08 can use the knowledge about the role of beauty to evaluate graphic interfaces

relating to social competences:

PEU\_K01: Developing self-assessment and self-control skills during work

	PROGRAM CONTENT	
	Lectures	Number of hours
Wy1	Introduction and basic definitions. Software quality standards and certifications	2
Wy2	Software quality attributes and measures	2
Wy3	Review of software quality models	2
Wy4	ISO 9126 standards	2
Wy5	ISO 9241 standard	2
Wy6	Software quality assurance methods	2
Wy7	Methods and tools for testing and evaluating software quality	2
Wy8	Final test	1
	Total hours	15
	Laboratory	Number of hours
La1	Laboratory-based examination of human-computer interaction efficiency factors.	2
La2	Evaluation of an IT product based on the KLM model (Keystroke Level Model )	2
La3	Heuristic evaluation methods (checklists).	2
La4	Fitts' law in the analysis of interface operation time.	2
La5	Interface optimization using the task analysis method.	2

La6	Rapid interface prototyping in visual programming environments.	2
La7	Design and evaluation of selected interactive systems.	2
La8	The role of beauty in assessing the quality of IT products.	1
	Total hours	15

# TEACHING TOOLS USED

- N1. Computer
- N2. Projector
- N3. Computer applications: Ms PowerPoint
- N4. Black and white boards
- N5. Visual development environments, e.g. Microsoft Visual Basic for Applications

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(during semester), P –	number	
concluding (at semester		
end)		
F1 lab	PEU_U01	Assessing the exercises' completion performance
F2 lab	PEU_U02	Assessing the exercises' completion performance
F3 lab	PEU_U03	Assessing the exercises' completion performance
F4 lab	PEU_U04	Assessing the exercises' completion performance
F5 lab	PEU_U05	Assessing the exercises' completion performance
F6 lab	PEU_U06	Assessing the exercises' completion performance
F7 lab	PEU_U07	Assessing the exercises' completion performance
F8 lab	PEU_U08	Assessing the exercises' completion performance
P1	PEU_W01, PEU_W02	Final test
PW (lecture) = P1	F211 F211 F411	+ F5 lab + F6 lab + F7 lab + F8 lab

PL (laboratory) = F1 lab + F2 lab + F3 lab + F4 lab + F5 lab + F6 lab + F7 lab + F8 lab

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Albert, W., & Tullis, T. (2008). Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics. Amsterdam; Boston: Morgan Kaufmann.
- [2] Allen, J. J., & Chudley, J. J. (2012). Smashing UX Design: Foundations for Designing Online User Experiences (1 edition). Chichester, West Sussex, UK: Wiley.
- [3] Kan S.H. (2006). Metryki i modele w inżynierii jakości oprogramowania. PWN SA Warszawa,.
- [4] Kobyliński A. (2005). Modele jakości produktów i procesów programowych. SGH Warszawa.
- [5] Krug, S. (2013). Don't Make Me Think: A Common Sense Approach to Web Usability (revised edition). Berkeley, Calif.: New Riders.
- [6] Krug, S. (2014). Nie każ mi myśleć! O życiowym podejściu do funkcjonalności stron internetowych. Helion, Wydanie II.
- [7] Mayhew D. (1999). The usability engineering lifecycle, Morgan Kaufman.
- [8] Mościchowska I., Rogoś-Turek B. (2015) Badania jako Podstawa Projektowania User Experience. Wydawnictwo naukowe PWN.
- [9] Patton R. (2002). Testowanie oprogramowania, MIKOM.
- [10] Preece J. (2002). Interaction design, Wiley & Sons.
- [11] Sauro, J., & Lewis, J. R. (2016). Quantifying the User Experience: Practical Statistics for User Research (2 edition). Morgan Kaufmann.

# SECONDARY LITERATURE:

- [1] Cohen L. (1995). Quality Function Deployment, Addison-Wesley.
- [2] ISO/IEC 25010, ISO/IEC JTC 1/SC 7, Software and systems engineering, Systems and software Quality Requirements and Evaluation (SQuaRE) -- System and software quality models.
- [3] ISO 9241, ISO/TC 159/SC 4, Ergonomics of human-system interaction.
- [4] Nielsen J. (2004). Projektowanie funkcjonalnych serwisów internetowych, Helion.
- [5] Pfleeger S.L., Hatton L., Howell Ch. C., (2002) Solid Software, Prentice Hall.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr hab. inż. Rafał Michalski, prof. uczelni; rafal.michalski@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Komputerowa analiza decyzji biznesowych Name of subject in English: Computer analysis of business decisions

Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0063

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,		0,7		

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of computer spreadsheets
- 2. Basic knowledge of management

#### **SUBJECT OBJECTIVES**

- C1 Course participant should gain knowledge about the implementation of business analysis using computer tools
- C2 To acquire computer skills in analytical techniques for the study of decision-making processes.
- C3 The acquisition of knowledge and skills to enable the preparation of computer applications supporting analytical operations for the management of economic organization

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01 The student is able to identify the characteristics of the tools appropriate to the analytical steps required for business decisions. He/she is able to offer enterprise decision support techniques using computer tools
- PEU\_W02 The student is able to identify examples of business decisions models in a spreadsheet. He/she can explain the principles of effectiveness analysis in a spreadsheet relating to skills:
- PEU\_U01 The student can use a spreadsheet to analyze the company. He/she is able to

organize and carry out the acquisition of data from available sources. He/she can expand the functions available for spreadsheets

PEU\_U02 – The student can develop a technology solution to the problem and propose the use of decision-making results. He/she knows how to organize the decision-making parameters and effects of decisions by sensitivity analysis techniques

relating to social competences:

PEU\_K01 -The student is prepared to solve the problems of decision-making in organizations using different sources of information and data available in different formats

	Lectures			
Lec 1	Organizational issues. Spreadsheets and business decision analysis	1		
Lec 1, Lec 2, Lec 3	Spreadsheets - automatic inference rules, user interface and dynamic business graphics designing	5		
Lec 4, Lec 5	Visual Basic for Application in business problems. Work with external data sources	3		
Lec 5, Lec6	The use of spreadsheets in the sensitivity analysis, marketing research, assortment decisions, employment planning	2		
Lec7	Constructing network models, analysis of decision-making under uncertainty and risk analysis of queuing problems, the analysis of production process models, analysis of financial statements and budgeting. Using other analytic tools	2		
Lec8	The written test	2		
	Total hours	15		
	Laboratory	Number of hours		
Lab 1	Organizational issues. Allocation, selection and discussion of programming tasks to perform	1		
Lab 2	Introduction to Visual Basic for Applications in Excel in practice	2		
Lab 3	Discuss the use of automatic inference rules and check them in practice. Use a spreadsheet financial analysis	2		
Lab 4	The role of sensitivity analysis. Modeling random factor.	2		
Lab 5	Building the user interface. The use of business graphics in practice	2		
1 al 6	Discussion of how to use external data sources	2		
Lab o	Presentation of the developed applications	2		
	resentation of the developed applications			
Lab 6 Lab 7 Lab 8	Problems of queuing models and production processes in a spreadsheet - an attempt to optimize decisions and assess their feasibility.	2		

#### **TEACHING TOOLS USED**

- N1. Introductory lecture
- N2. Lecture problem
- N3. Multimedia presentation using computer animation
- N4. Podcasting and videocasting
- N5. Consultation
- N6. Consultations, e-mailing
- N7. Tutorials Talk about solutions jobs

- N8. Discussion
- N9. Independent student or group work on creating models and computer applications
- N10. Preparation of reports and instructions
- N11. Written tests and colloquia
- N12. Oral diagnostic reports
- N13. Presentation of the work performed

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)		Way of evaluating educational effect achievement
P1	PEU_W01, PEU_W02	Colloquium
F1	·	Application constructed during the semester and report on its implementation
		Presentation of the work (applications) developed during the semester
F3	PEU_U01, PEU_U02	Verbal report of the use of models and experiments made on their basis.

- P1 evaluation of the lecture
- P2 evaluation of the laboratory
- P2 = 0.6 \* F1 + 0.2 \* F2 + 0.2 \* F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Alexander M., Walkenbach J.Analiza i prezentacja danych w Microsoft Excel. Vademecum Walkenbacha. Helion 2011
- [2] Allen S. Modelowanie danych 2005
- [3] Balakrishnan N., Render B., Stair R.M., Managerial Decision Modeling with Spreadsheets. Second edition. Prentice Hall 2007
- [4] Carlberg C., Microsoft Excel 2007 PL. Analizy biznesowe. Helion 2009
- [5] Etheridge D., Excel 2007 PL. Analiza danych, wykresy, tabele przestawne. Niebieski podręcznik. Helion 2009
- [6] Flanczewski S., Excel z elementami VBA w firmie, Helion 2008
- [7] Gonet M., Excel w obliczeniach naukowych i inżynierskich. Wydanie II. Helion 2011
- [8] Hawley D., Hawley R., 100 sposobów na Excel 2007 PL. Tworzenie funkcjonalnych arkuszy. Helion 2008
- [9] Lewandowski M., Tworzenie makr w VBA dla Excela 2003/2007. Ćwiczenia. Helion 2007
- [10] Próchnicki W., Zastosowanie Excela w pracy analityka finansowego, specjalisty ds. controllingu i analityka sprzedaży, Helion 2012
- [11] Simon J., Excel. Profesjonalna analiza i prezentacja danych. Helion 2006

#### SECONDARY LITERATURE:

- [1] Drejewicz S., Zrozumieć BPMN. Modelowanie procesów biznesowych. Helion 2011
- [2] Jackson M., Staunton M. Zaawansowane modele finansowe z wykorzystaniem Excela i VBA. Helion 2004
- [3] Moore J.H., Weatherford L.R., Decision Modeling with Microsoft Excel. Prentice Hall 2001
- [4] Roman S., Excel. Makrodefinicje. Programowanie Excela z wykorzystaniem VBA. Helion 2000

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Komputerowe aplikacje biznesowe Name of subject in English: Business computer applications

Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0067

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			0,7		

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of computer spreadsheets
- 2. Basic knowledge of management

#### **SUBJECT OBJECTIVES**

- C1 Course participant should gain knowledge about the implementation of business analysis using computer tools
- C2 To acquire computer skills in analytical techniques for the study of decision-making processes.
- C3 The acquisition of knowledge and skills to enable the preparation of computer applications supporting analytical operations for the management of economic organization

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01 The course participant is able to identify the characteristics of tools (software) and use their functions to capture, analysis, presentation and structuring of data and information for enterprise management
- PEU\_W02 The course participant is able to identify how to use Office software to prepare the supporting computer applications for solving some problems of analysis and discuss the issue of integration of management information systems relating to skills:

PEU\_U01 – The course participant should be able to use Office software to prepare computer application supporting modeling and solving some problems of analysis and integrate it with systems management

	PROGRAMME CONTENT	Number of	
	Lectures	hours	
Lec 1	Organizational issues. Introduction to the structure of computer office applications	1	
Lec 2	Microsoft Office, its evolution and advanced features	2	
Lec 3	OpenOffice, its conditions, evolution and advanced features. Other type of Office packages and advanced features	2	
Lec 4	Event programming languages in Office-type packages	2	
Lec 5	Using the advanced features and functionality of Office-type packages, communication with external data sources, the construction of advanced automatic inference rules, user interface design and dynamic business graphics	2	
Lec 6	The integration of spreadsheets and word processing with computer management systems. Construction techniques of analytical procedures the effects of the company	2	
Lec 7	The use of spreadsheets in the sensitivity analysis, marketing research, assortment decisions, work planning	2	
Lec 8	Final test	2	
	Total hours	15	
	Laboratory	Number of hours	
Lab 1, Lab2, Lab3	Construction of business analytical models using the advanced features of MS Office for the purpose of marketing research, assortment decisions, workforce planning	5	
Lab 4	Event-driven programming in VBA for MS Excel	2	
Lab 5	Event-driven programming in VBA for MS Word	2	
Lab 6	Event-driven programming in OpenOffice and LibreOffice Basic	2	
Lab 7, Lab 8	Construction of advanced analytical models in a spreadsheet that works with external data sources, equipped with a user interface and dynamic business graphics	4	
	Total hours	15	

# TEACHING TOOLS USED

- N1. Introductory lecture.
- N2. Lecture problem.
- N3. Multimedia presentation using computer animation.
- N4. Videocasting.
- N5. Consulting at a distance, e-mailing.
- N7. Discussion.
- N8. Student's independent work on the development of models and computer applications.
- N9. Preparation of reports and instructions.
- N10. Written tests and colloquia.

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
P1	PEU_W01, PEU_W02	Colloquium
F1	PEU_U01	Application (larger) and the report of its construction
F2	PEU_U01	Application (smaller) and a written report from the lab
F3	PEU_U01	Application (smaller) and a written report from the lab
F4	PEU_U01	Application (smaller) and a written report from the lab
F5	PEU_U01	Application (larger) and the report of its construction

P1 - evaluation of the lecture

P2 = 0.3 \* F1 + 0.2 \* F2 + 0.1 \* F3 + 0.1 \* F4 + 0.3 \* F5

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Alexander M., Walkenbach J.Analiza i prezentacja danych w Microsoft Excel. Vademecum Walkenbacha. Helion 2011
- [2] Carlberg C., Microsoft Excel 2007 PL. Analizy biznesowe. Helion 2009
- [3] Etheridge D., Excel 2007 PL. Analiza danych, wykresy, tabele przestawne. Niebieski podręcznik. Helion 2009
- [4] Flanczewski S., Excel z elementami VBA w firmie, Helion 2008
- [5] Lewandowski M., Tworzenie makr w VBA dla Excela 2003/2007. Ćwiczenia. Helion 2007
- [6] Pitonyak A., OpenOffice.org Macros Explained, Hentzenwerke Publishing 2004
- [7] Roman S., Excel. Makrodefinicje. Programowanie Excela z wykorzystaniem VBA. Helion 2000
- [8] Walkenbach J., Excel 2010 PL. Programowanie w VBA. Vademecum Walkenbacha. Helion 2011

#### **SECONDARY LITERATURE:**

- [1] Jaronicki A., 122 Sposoby na OpenOffice.ux.pl 2.0, Helion 2006
- [2] Moore J.H., Weatherford L.R., Decision Modeling with Microsoft Excel. Prentice Hall 2001

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jacek Zabawa, jacek.zabawa@pwr.edu.pl

P2 - evaluation of the laboratory

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Komunikacja w organizacji Name of subject in English: Organizational communication

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0101

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1 Familiarizing students with the basic issues related to communication in the organization
- C2 Providing students with tools to assess the effectiveness of communication in the organization
- C3. Creating the opportunity to solve problems and group work together

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Student knows the basic terms and elements related to communication in the organization
- PEU\_W02 Student knows the tools used to identify and evaluate communication in the organization

relating to skills:

- PEU\_U01 Student is able to construct tools for identifying and diagnosing the state of communication in the organization
- PE<u>U\_U02</u> Student is able to propose changes in communication based on a diagnosis of its condition

relating to social competences:

PEU\_K01 Student is able to set priorities in own work and in cooperation with others

PEU\_K02 Student is able to cooperate and work in a group

PEU\_K03 Student demonstrates courage in communicating and defending one's views. He is prepared to convince and negotiate in the name of achieving common goals

	PROGRAM CONTENT				
	Lectures				
Lec 1	Introduction to the subject. Course information and organizational matters	1			
Lec 2	Interpersonal and group communication	2			
Lec 3	Communication in the organization and its culture	2			
Lec 4	Communication behavior styles and management styles	2			
Lec 5	Internal communication - tools, goals, barriers, methods of testing internal communication	2			
Lec 6	Organizational external communication and crisis communication.	2			
Lec 7	Communication practice; organization of meetings, meetings and conferences	2			
Lec 8	Final test and summary	2			
	Total hours	15			
	Seminar	Number of hours			
Sem 1	Introduction, organizational matters	1			
Sem 2	Group communication, communication within the organization	2			
Sem 3	Leaders and their styles of action and communication	2			
Sem 4	Communication in crisis situations. Image crises	2			
Sem 5	Auditing tools; interview, observation, content analysis	2			
Sem 6	Audit tools: questionnaire surveys - survey, structured interview	2			
Sem 7	Presentation and analysis of student reports	2			
Sem 8	Presentation and analysis of student reports	2			
	Total hours	15			
	TEACHING TOOLS USED				

#### TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works
- N6. Presentation of reports prepared by students

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester end)		
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback

F2 Works prepared in groups PEU_W01- PEU_W02 PEU_U01 PEU K01-PEK K02	Oral feedback. Work evaluation
--	--------------------------------

C Report on students' own analysis regarding internal or external communication of the organization; knowledge test

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Cornelissen J., (2012) *Komunikacja korporacyjna. Przewodnik po teorii i praktyce*, Warszawa: Wolters, Kluwer
- 2. Hamlin, S.,(2008) Jak mówić, żeby nas słuchali Poznań: Rebis
- 3. Brzezińska, E., Paszkowska-Rogacz, A. (2009) Człowiek w firmie Warszawa: Difin SA

# SECONDARY LITERATURE:

- 1. Olędzki, J., Tworzydło, D.(ed) *Leksykon Public Relations* Rzeszów: Wydawnictwo Newsline Sp.& Bonus Liber Sp. z o. o.
- 2. Stępowski R. (2016) Komunikacja marketingowa 2030. Technologiczna rewolucja i mentalna ewolucj
- 3. Decker, B. (2010) Wystąpienia publiczne. Trening dla menedżerów. polityków i ekspertów PR

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Koncepcje zarządzania Name of subject in English: Management concepts Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0030

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			60	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			2	1
including number of ECTS points for practical (P) classes				2	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### 1. Principles of management

#### **SUBJECT OBJECTIVES**

The acquisition of basic knowledge, taking into account aspects of application, about:

- C1. schools and approaches in the organization and management theory,
- C2. methods used in the management,
- C3. management concepts,
- C4. effectiveness of the organization.

The acquisition of basic skills about:

- C5. identification of management problems and issues in the organization,
- C6. formulation and matching solutions for the management and substantive issues in the organization,
- C7. analysis and evaluation of selected characteristics of the organization.

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

- PEU\_W01 has a basic knowledge of schools and approaches in organization and management theory
- PEU\_W02 has extended knowledge of the methods used in the management
- PEU\_W03 has expanded the knowledge of management concepts
- PEU W04 can identify the basic problems of management
- PEU\_W05 has a basic understanding of the concept of organizational efficiency

#### relating to skills:

- PEU\_U01 at a basic level can choose, justify and apply the methods and techniques to identify, analyze and solve complex management problems and issues in the organization
- PEU\_U02 at a basic level can formulate solutions to complex management problems and issues in the organization
- PEU\_U03 at a basic level can analyze and evaluate the objectives, features and elements of the organization
- PEU\_U04 is able to identify and analyze common problems of management

#### relating to social competences:

- PEU\_K01 is aware of the need to develop knowledge and skills in the organization and management science
- PEU\_K02 is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations
- PEU\_K03 is prepared to communicate, persuade and defend his views

#### PROGRAM CONTENT Number of Lectures hours The idea of management concepts and methods. The role and shortcomings 2 Lec 1 of to ols. The practical suitability of management concepts and methods. The scientific management: its precursors, scientific organization of work, 2 Lec 2 typical management methods. Administrative management theory school: Henri Fayol and classical 2 Lec 3 organization theory, theory of bureaucracy - the concept of the ideal type of organization. Methods of administrative management theory school. Human relations. Management methods used in human relations approach. Lec 4 2 System theory: The concept of the system, the hierarchy of systems. Lec 5 Systemic point of view. The organization as an open system. Management methods used in a systems approach. Contingency theory. Management methods used in the contingency theory. 2 Lec 6 2 The new wave in management. Management methods used in the new Lec 7 wave.

Lec 8	Lean management	2
Lec 9	Business Process Reengineering	2
Lec 10	Time Based Management	2
Lec 11	Benchmarking	2
Lec 12	Outsourcing	2
Lec 13	Organizational learning	2
Lec 14	Network organization	2
Lec 15	Virtual organization	2
	Total hours	30
	Project	Number of hours
Proj 1	Identification of the method used in the chosen company.	2
Proj 2	Description of theoretical assumptions of the identified method.	2
Proj 3	Description of the identified management method in business practice - goals of the organization.	2
Proj 4	Description of the identified management method in business practice - the structure of the organization.	2
Proj 5	Description of the identified management method in business practice - the social subsystem of the organization.	2
Proj 6	Description of the identified management method in business practice - technology in the organization.	2
Proj 7	Improvement proposals	2
Proj 8	Presentation	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Scientific management	2
Sem 2	Administrative approach, human relations approach	2
Sem 3	System approach	2
Sem 4	A situational approach	2
Sem 5	New Wave in management	2
Sem 6	Lean management	2
Sem 7	Process approach	2
Sem 8	Time based management	1
	Total hours	15

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-analysis and evaluation of selected aspects of the organization
- N5. Self-study: classes preparation and final assessment preparation
- N6. Project prepared by students

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P		Assessment of developed solutions regarding the analysis and evaluation of the chosen organization
Р	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_W05	Examination

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Błaszczyk W., Metody organizacji i zarządzania, Wydawnictwo Naukowe PWN, Warszawa 2005
- [2] Brzozowski M., Kopczyński T., Metody zarządzania, Wydawnictwo UE w Poznaniu, Poznań 2009.
- [3] Czekaj J., Metody organizacji i zarządzania, Wydawnictwo AE w Krakowie, Kraków 2007.
- [4] Hopej M., Struktury organizacyjne, Ossolineum, Wrocław Warszawa Kraków 2004.
- [5] Zimniewicz K., Współczesne koncepcje i metody zarządzania, PWE, Warszawa 1999.

## **SECONDARY LITERATURE:**

- [1] Koźmiński A.K., Piotrowski W. (red.), Zarządzanie. Teoria i praktyka, Wydawnictwo Naukowe PWN, Warszawa 2006
- [2] Brilman J., Nowoczesne koncepcje i metody zarządzania, PWE, Warszawa 2002.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, robert.kaminski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Metody eksploracji danych Name of subject in English: Data Mining Methods Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0068

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			60	
Form of crediting	Crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				0.7	

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has a basic knowledge of statistical tools.
- 2. Student has a basic practical skills in working with statistical software.

#### **SUBJECT OBJECTIVES**

- C1: Acquiring knowledge of data mining methods and tools.
- C2: Mastering the to solve real decision problems using data mining methods and tools.
- C3: Acquiring social competences specific to teamwork processes.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student has a basic knowledge of data mining methods and techniques.

PEU\_W02 Student has a basic knowledge of the use of IT tools in data mining useful in making decisions in management processes.

relating to skills:

PEU\_U01 The student is able to apply data mining tools and techniques in solving decision problems in management processes.

PEU U02

relating to social competences:

PEU\_K01: The student is able to independently develop their knowledge and skills. The

student is able to interact and work in teams. The student shows readiness to identify, analyze and solve problems in the field of identification and analysis of decision problems. The student is ready to create and solve decision models in the management information system environment.

PEU\_K02: The student is able to professionally seek and choose methods for solving decision problems and take responsibility for them. The student is able to convey and defend their own views related to the selection and application of mathematical and IT methods and tools in making decisions.

	Lectures		
Lec 1	Data mining – methods and practical applications: examples.	2	
Lec 2	Pre-processing.	2	
Lec 3	Cluster analysis: nearest (Furthest) algorithm.	2	
Lec 4	K-means algorithm. Hierarchical classification algorithms.	2	
Lec 5	Classification and decision trees.	2	
Lec 6	Association Methods.	2	
Lec 7	Regression trees.	2	
Lec 8	Statistical methods of data mining.	1	
	Total hours	15	
	Project	Number of hours	
Proj 1	Data collection; team work.	2	
Proj 2	Pre-processing data; team work.	22	
Proj 3	Nearest (Furthest) algorithm implementation; team work.	2	
Proj 4	Classification algorithm implementation; team work.	2	
Proj 5	Presentation result; team work.	2	
Proj 6	Classification and regression tree implementation; team work.	2	
	Presentation result; team work.	2	
Proj 7			
Proj 7 Proj 8	Presentation of the solution of the analyzed decision problem; team work	1	

#### **TEACHING TOOLS USED**

- N1. Multimedia presentation.
- N2. Data collection.
- N3. Computer data analysis.
- N4. Team work.
- N5. Writen test.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

`		Learning outcomes	Way of evaluating learning outcomes achievement
(during semester	/, <del>-</del>	IUIIIOCI	
concluding (at se	emester		
end)			
F1	P	PEU_W02	Evaluation of the results of data analysis.

	PEU_U01		
F2	PEU_K01 PEU_K02	Evaluation of presentation.	
P1	PEU_W01	Written test.	
P2	PEU_W02 PEU_U01	Report.	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

[1] Larose D.T.: Discovering Knowledge in Data Analysis. An Introduction to Data Mining, John Wiley & Sons, 2005.

## SECONDARY LITERATURE:

- [1] Cooc D.J., Holder L.B.: Mining Graph Data, Hoboken, N.J.: Wiley-Interscience, 2007.
- [2] David H., Heikki M., Padhraic S., Data Mining, MIT, 2001.
- [3] Han J., Kamber M.: Data Mining. Concept and Techniques, Elsevier Morgan Kaufmann Publishers, 2006.
- [4] Han J., Jiawei: Data Mining: Concepts and Technics, 2006.
- [5] Shmueli, Galit, Data Mining for Business Intelligence: Consepts, Techniques, and Applications in Microsoft Office Excel with XLMiner, Wiley-Interscience, 2006.
- [6] Sumathi S., Introduction to Data Mining and Its Application, 2006.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Skowrońska-Szmer, <u>anna.skowronska-szmer@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Metody sztucznej inteligencji Name of subject in English: Artificial intelligence methods

Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0061

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,,		0,7		

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knows the functional and hardware structures of computers, the concept and the classification of computer software. Capable of using computers, working in the operation system graphical environment using application programs.

## **SUBJECT OBJECTIVES**

- C1. To acquire basic knowledge of the use of selected artificial intelligence methods used in decision making.
- C2. To understand the principles of creating and using knowledge-based systems.
- C3. To acquire specific competencies for the activities associated with the use of intelligent information systems in organizations

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01. Knows the methods of data analysis, methods of knowledge representation and the specialized application of advanced statistical methods and tools for collecting, analyzing and presenting data.
- PEU\_W02. Knows the rules for the construction and use of knowledge-based systems and has the knowledge of their use in the organization.

relating to skills:

- PEU\_U01. Capable to perform a simply database of facts and rules.
- PEU\_U02. Capable to use specialized tools to analyze chosen problems.

relating to social competences:

- PEU\_K01. Selects the sources of information and use them to solve complex management problems in the organization. Capable to seek and choose the method of solving problems, communicate, persuade and defend their views related to the use of computer programming.
- PEU\_K02. Formulates simple hypotheses and research problems, selects appropriate methods, techniques and research tools, presents and interprets the results of research, draws conclusions.

Lectures		
Lec 1	Introduction. Organizational matters.	1
Lec 2	Methods of knowledge representation. Expert systems.	2
Lec 3,4	Creating a knowledge base. Inquiries. Unification of terms. Predicates.	3
Lec 1,5	Data structures. Lists. Recursion.	3
Lec 6	Graphs and action planning. The analysis of natural language sentences.	2
Lec 7	Game theory. Technology constraints.	2
Lec 8	Summary of the material. Test (P).	2
	Total hours	15
	Laboratory	Number of hours
Lab 1	Introduction. Organizational matters.	1
ab 2	Facts, rules, questions.	2
ab 3,4	Unification of terms. Predicates.	3
Lab 4,5	Lists. Recursion.	3
ab 6	Analysis of graphs.	2
ab 7	Practical test (F).	2
ab 8	Summary. Credit.	2
2000	<u> </u>	

#### **TEACHING TOOLS USED**

- N1. Lecture.
- N2. Multimedia presentation.
- N3. Laboratory instruction.
- N4. Instruction during laboratory.
- N5. Workstation with graphical operation system MS Windows, web browser, SWI-Prolog.
- N6. Practical test.
- N7. Written test.

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F	PEU_W02 PEU_U01, PEU_U02	Practical test
P	PEU_W01 PEU_K01(partially) PEU_K02(partially)	Written test
P=1, F=1		

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Clocksin W.F., Mellish C.S., Prolog. Programowanie, Helion.
- [2] Klein M., Methlie L.B., Expert systems: a decision support approach: with applications in management and finance, Addison-Wesley Pub. Co..
- [3] Turban E., Aronson J., Decision Support Systems and Intelligent Systems. Prentice Hall.

## SECONDARY LITERATURE:

- [1] Kasperski M., Sztuczna inteligencja, Helion.
- [2] Patridge D., Engineering Artificial Intelligence Software, Intelect Books.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Piotr Nyczka Piotr.nyczka@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Modelowanie procesów biznesowych w organizacji Name of subject in English: Modeling of business processes in the organization

Main field of study (if applicable): Management

Specialization (if applicable): Information technology in management (TIZ)

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0064

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	examination		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		1,4		

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knows concepts and application of the information technology in management. Knows worldwide used office software tools and their application in management.
- 2. Knows a construction of simple software tools aimed to solve management problems.
- 3. Capable to implement simple software tools aimed to solve management problems.

#### SUBJECT OBJECTIVES

- C1. To get knowledge about problems, methods and tools of the analysis and modeling of organizational business processes running in main organization activity areas as well as identification of information requirements from the process perspective.
- C2. To acquire capability to analyze business processes running in in main organization activity areas and to model those processes.
- C3. To acquire social competences specific for the activity in the analysis of business processes running in in main organization activity areas and in the modeling the processes.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01– Knows the chosen organizational information systems analysis methods and methods of exploring knowledge needed for business process modeling.

PEU\_W02– Knows the chosen methods, notations and tools of organizational business process and information system modeling.

relating to skills:

PEU\_U01— Capable to use and apply methods and notations of organizational business process and information system modeling.

PEU\_U02— Capable to model business processes and information systems by means of the chosen notation and the software tool.

relating to social competences:

PEU\_K01—Capable unaided to develop her/his knowledge and skills, to collaborate and to work in groups, ready to identify, analyze and solve problems in the area of organizational business process modeling..

PEU\_K02—Capable professionally to find and chose problem solving methods, to take the responsibility for them, pass over, convince and defend own views connecting with the organizational business process modeling.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to business identification, analysis and modeling. Organization, business processes, information system, organization knowledge and information requirements. Knowledge exploration for business process identification.	2
Lec 2	Introduction to the business process modeling methodology. Notations and tools. Modeling context, process areas, process hierarchy, process course and a subject domain.	2
Lec 3	Business motivation analysis and modeling. Detailed definition of goals, problems, critical success factors and key performance indicators as well as relationships between them.	2
Lec 4	Introduction to the trade business modeling case.	2
Lec 5	Sample business process models of the trading company.	2
Lec 6	Sample subject domain models of the trading business.	2
Lec 7	Introduction to the telecommunication business case.	2
Lec 8	Sample process models of the telecommunication company	2
Lec 9	Sample subject domain models of the telecommunication business.	2
Lec 10	Introduction to the information systems deployment business modeling case.	2
Lec 11	Sample business process models of the company introducing management information systems.	2
Lec 12	Sample subject domain models of the management information systems deployment business.	\
Lec 13	Management of business processes based on key performance indicators as well as modeling of business processes within the framework of software oriented architecture.	2
Lec 14	Business process modeling platforms and their improvement opportunities.	2

Lec 15	Written test.	2
	Total hours	30
	Laboratory	Number of hours
Lab 1	Introduction to the organization business process analysis and modeling (BPAM) – sample business motivation models. Introducing a sample business motivation modeling tool. Organization of student teams. Election of project leaders.	2
Lab 2	Introduction to the BPAM – sample business process course models. Introducing to the sample business process modeling tool. Discussion of the potential modeling problem cases.	2
Lab 3	Introduction to the BPAM – sample subject domain business models.  Introducing to the sample business process information requirements (extend) modeling tool. Declaration of the team modeling problem cases.	2
Lab 4	Identification of an organization being the subject of the processes modeled and its information system. Exploring, storing, initial processing, grouping, aggregating and setting together of information needed for modeling. Preparation of the project task declaration according to the given by the teacher form and elaboration of the problem solution plan.	2
Lab 5	Preparation of the business motivation model (goals, problems, critical factors and key performance indicators), business context model and its process areas – by means of the chosen software tool.	2
	Documenting elaborated process models using project document form – partial evaluation (BMM model).	2
Lab 7	Preparation of a process hierarchy and use case models for the chosen fragments of the hierarchy. Modeling of the process course for the chosen business processes by means of the chosen software tool.	3
Lab 8	Documenting elaborated process models using project document form – partial evaluation (BPM model).	2
Lab 9	Preparation of the subject domain model (ERD, class diagram) for business processes modeled by means of the chosen software tool.	3
	Documenting elaborated models (ERD, class) using project document form – partial evaluation (ERD model)	2
Lab 11	Integration of the project documentation.	2
Lab 12	Presentation the decision problem and its solution during the plenary session. Evaluation by the teacher – part 2.	2
Lab 13	Presentation of the decision problem and its solution during the plenary session. Evaluation by the teacher – part 2.	2
	Final evaluation, discussion and classification of essential problems identified during classes.	2
	Total hours	30

# TEACHING TOOLS USED

- N1 lecture,
- N2 multimedia presentation,
- N3 laboratory instruction,
- N4 instruction during classes,
- N5 group discussions during classes,
- N6 internet group discussions,
- N7 workstation with dedicated software
- N8 preparation of the analysis report,

N9 – practical test	
N10 – written test	

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect numer	Way of evaluating educational effect achievement
F1		A partial evaluation of the course work (BMM model)
F2		A partial evaluation of the course work (BPM model)
F3		A partial evaluation of the course work (ERD model)
Р	PEU_W01, PEU_W02,	A final evaluation of the course work
F=3, P=1		

# PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Barker R., CASE\*Method Modelowanie związków encji, , PWN, Warszawa 1996.
- [2] Bitkowska A., Zarządzanie procesami biznesowymi w przedsiębiorstwie, VIZJA Press&IT, Warszawa, 2009
- [3] Dąbrowski W., Stasiak A., Wolski M., *Modelowanie systemów informatycznych w języku UML 2.1 w praktyce*, PWN, MIKOM, Warszawa 2007.
- [4] Drejewicz S., Zrozumieć BPMN. Helion, Wrocław 2012
- [5] Skrzypek E., Hofman M., Zarządzanie procesami w przedsiębiorstwie, Wyd. Wolters Kluwer Polska, Warszawa 2010
- [6] Wrycza S., Informatyka ekonomiczna. Podręcznik akademicki, PWE, Warszawa 2010.

#### SECONDARY LITERATURE:

- [1] Barker R., Longman C., CASE\*Method Modelowanie funkcji i procesów, WNT, Warszawa 1996.
- [2] Muller R.J., Bazy danych język UML w modelowaniu danych, MIKOM, Warszawa 1999.
- [3] Wrycza S., Analiza i projektowanie systemów informatycznych zarządzania. Metodyki, techniki, narzędzia. PWN, Warszawa 1999..

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Leopold Szczurowski, leopold.szczurowski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Modelowanie symulacyjne Name of subject in English: Simulation modeling Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0031

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	60		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	2		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Modeling in Excel spreadsheet
- 2. Basics of probability and statistics

#### SUBJECT OBJECTIVES

- C1 Acquaintance with basic concepts of stochastic simulation modeling
- C2 Ability to use simulation models to describe the present state and to predict the future performance of the organization.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 The student has the knowledge about the steps of simulation models' building.

PEU\_W02 The student has the specialist knowledge in the field of quantitative and qualitative modeling and forecasting of the states and the processes in the organization.

relating to skills:

PEU\_U01 The student can build and use simulation models to solve the complex managerial problems.

relating to social competences:

PEU\_K01 The student understands the essence of ethics in business

PEU K02 The student can interact and work in collaborative forms

#### **PROGRAM CONTENT** Number of Lectures hours Class rules. Simulation and forecasting: basic definitions Lec 1 Simulation modeling cycle. Simulation and forecasting 2 Lec 2 Discrete event simulation in Arena. Part 1 Lec 3 Discrete event simulation in Arena. Part 2 2 Lec 4 Input data modeling. Random numbers Lec 5 Experiment planning Lec 6 Verification and validation Lec. 7 Lec 8 Final test **15** Total hours Number of Laboratory hours Lab 1 Class rules Lab 2 Discrete event model - introduction Lab 3 Discrete event model – part 1 Discrete event model – part 2 Lab 4 2 Lab 5 Discrete event model – part 3 Lab 6 Introduction to mini project Lab 7 Project defense 2 Lab 8 Grading Total hours 15

#### TEACHING TOOLS USED

N1. Multimedia presentation

N2. Software packages (Arena, Extend, Simio, AnyLogic)

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_K01	Assignment no 1
F2	PEU_U01 PEU_K01	Assignment no 2
F3	PEU_U01 PEU_K01	Assignment no 3
F3	PEU_U01 PEU_K01	Assignment no 4
F3	PEU_K02	Mini project

PEU_K01	
P Final test PEK W01 PED W02	

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] **Mielczarek B.,** *Modelowanie symulacyjne w zarządzaniu. Symulacja dyskre*tna. Oficyna Wydawnicza PWr Wrocław 2009
- [2] Kelton W.D., Sadowski R.P., Sturrock D.T., Simulation with Arena, McGraw Hill Higher Education
- [3] Rossetti M.D., Simulation modelling and Arena, John Wiley and Sons, Inc., 2010

## SECONDARY LITERATURE:

- [1] Winston L.W., Microsoft Excel 2019. Analiza i modelowanie danych biznesowych, APN Promise, Warszawa 2019
- [2] Gajda J.B., Prognozowanie i symulacja a decyzje gospodarcze, Wyd. C.H.Beck, Warszawa 2001
- [3] Cieślak M., (red.) *Prognozowanie gospodarcze. Metody i zastosowania*, Wydawnictwo Naukowe PWN, Warszawa 2002.
- [4] Maciąg A., Pietroń R., Kukla S. Prognozowanie i symulacja w przedsiębiorstwie, PWE 2013

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Bożena Mielczarek bozena.mielczarek@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Optymalizacja Decyzji Name of subject in English: Optimization of Decisions

Main field of study (if applicable): Management

Specialization (if applicable): IT Technologies in Management

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0065

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			0,7		

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in operations research and probability calculus.
- 2. Basic skills in computer programming

#### SUBJECT OBJECTIVES

- C1. Showing students basic types of decision situations.
- C2. Showing students basic models of game theory and their application to practical decision-making situations.
- C3. Showing students basic methods of modeling risk and uncertainty in decision problems.
- C4. Presenting various methods of solving hard optimization problems.
- C5. Presenting software for solving decision problems.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Knows the basic types of decision-making situations, such as decisions under uncertainty and risk, cooperative and non-cooperative n-personal games.

PEU\_W02 - Has specialist knowledge of methods for solving decision problems.

relating to skills:

PEU\_U01 - Can apply the correct decision model for a practical problem.

PEU\_U02 - Is able to use IT tools to solve various decision problems.

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Classification of decision situations.	1
Lec 2	Noncooperative two-person games – applications and solution methods.	2
Lec 3	Noncooperative n-person games – applications and solution methods	2
Lec 4	Decision making under risk. Utility theory and decision trees.	2
Lec 5	Decision making under uncertainty.	2
Lec 6	Solving hard optimization problems by using metaheuristics, part I	2
Lec 7	Solving hard optimization problems by using metaheuristics, part II	2
Lec 8	Written test	2
	Total hours	15
	Laboratory	Number of hours
Lab 1	Presentation of software for solving optimization and game theory problems.	1
Lab 2	Solving practical game theory problems	2
Lab 3	Solving practical game theory problems	2
Lab 4	Solving practical game theory problems	2
Lab 5	Solving practical game theory problems	2
Lab 6	Solving practical discrete optimization problems.	2
Lab 7	Solving practical discrete optimization problems.	2
Lab 8	Written test	2
	Total hours	15

## TEACHING TOOLS USED

- N1. Presentation
- N2. Solving tasks
- N3. Using optimization software

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

\	Learning outcomes number	Way of evaluating learning outcomes achievement
	PEU_W01 PEU_W02 PEU_U01 PEU_U02	Written test
P=1		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] R.D. Luce, H. Raiffa. Games and decisions. Introduction and critical survey. Dover Publication Inc. 1957
- [2] H. Peters. Game Theory. A multi-level approach. Springer 2008.
- [3] Z. Michalewicz. D. Fogel. How to solve it. Modern Heuristics. Springer 2004
- [4] Z. Michalewicz. Algorytmy genetyczne + struktury danych = programy ewolucyjne. WNT 1996

# SECONDARY LITERATURE:

- [1] F. Glover, T. Laguna. Tabu Search, Kluwer Academic Publishers, 1997.
- [2] W. Michiels, E. Aarts, J. Korst. Theoretical aspects of local search. Springer 200
- [3] R. Myerson. Game Theory: Analysis of Conflict, Harvard University Press, 1997

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Prawne i ekonomiczne aspekty zarządzania informacją i

wiedzą

Name of subject in English: Legal and economic aspects of information and knowledge

management

Main field of study (if applicable): Management

Specialization (if applicable): ZPP,TIZ

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0095

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. no

#### **SUBJECT OBJECTIVES**

- C1. Gaining basic knowledge of information and knowledge management in the enterprise, as well as raising awareness of the role of intangible assets and their value to the modern organization. Students will learn both the methods and tools for information and knowledge management and intellectual capital transformation processes in the long-term value for the company.
- C2: Understanding the importance of information and knowledge management in enterprises, especially in the legal and economic aspects. Introduction to the methods of acquisition, preservation and sharing of knowledge property rights (IPR) and obtaining funding for knowledge management and evaluation of the effectiveness of their use, as well as knowledge of methods for estimating the value of the intellectual capital of the organization.
- C3:. Understanding the fundamental processes related to the management of information and

knowledge regarding the generation, collection, storage, protection, use and protection of information and knowledge within the organization.

C3: Understanding the basic models and systems of knowledge and information management to support business enterprises.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01 student knows and understands the nature of information and knowledge management in the organization. Understands the concepts of data, information and knowledge, and their character.
- PEU\_W02 student understands the importance and value of information and knowledge for the development of modern enterprises and entire economies and the need to manage these resources.
- PEU\_W03 student knows the basic models and processes for managing knowledge and information, especially in terms of legal and economic. Familiar with the methods of collection, preservation and availability of knowledge property rights (IPR) and raise funds for the management of knowledge and information. He met the valuation method selected intellectual capital of the organization.
- PEU\_W04 student met the management of information and knowledge in support of enterprises.

relating to skills:

PEU\_U01 student is able to analyze the processes of knowledge and information management, especially in terms of legal and economic

relating to social competences:

PEU\_K01 student is aware of the importance of effective management of knowledge and information in the practice of the organization, economy and everyday life

	PROGRAMME CONTENT				
	Lectures	Number of hours			
Lec 1	Knowledge as a paradigm of development. The information society and knowledge-based economy, the importance and value of intangible assets for businesses.	2			
Lec 2	Define basic concepts such as data, information and knowledge. Information management and knowledge management.	2			
Lec 3	Conditions of knowledge management and information in the organization. Models, processes and tools of information management and knowledge: the generation and acquisition of information and knowledge, the accumulation of information and knowledge, use and distribution of knowledge.	2			
Lec 4	Knowledge as a chance for the success of the organization's development. Information management systems and knowledge management systems to support business enterprises.	2			
Lec 5	Information and knowledge protection policy in the enterprise - the intellectual capital of the organization, methods of measurement.	2			
Lec 6	Summary - development trends in the management of information and knowledge. Successes and failures in the management of information and knowledge - case studies.	2			
Lec 7	Final test	1			

	Total hours	15
	Classes	Number of hours
Cl 1	The information society and knowledge-based economy, the importance and value of intangible assets for businesses - case studies	2
Cl 2	Information management and knowledge management - discussion, case studies	2
Cl 3	Information management systems in support of business case study analysis	2
Cl 4	Knowledge management systems in support of business case study analysis	2
Cl 5	Organization and policy information and knowledge in the company's case study analysis	2
Cl 6	Intellectual capital of the organization, methods of measurement - discussion, case study	2
Cl 7	Final test	1
_	Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. The online database of information and knowledge
- N3. Case study

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 -W05 PEU_K01	Test
F2	PEU_W01 -W06	Activity, the presence
F3	PEU_U01 -U03 PEU_K01	Oral presentation
F4	PEU_U01 -U03	Activity, the presence
D1 (I 4 ) 0 7 4 E1 0 (	•	

P1 (**lecture**) = 0.7\*F1 + 0.3P2 (**classess**) = 0.8\*F3 + 0.2\*F4

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. W. Kotarba: Ochrona wiedzy a kapitał intelektualny organizacji. PWE, Warszawa 2006.
- 2. Głuszek E.: Zarządzanie zasobami niematerialnymi przedsiębiorstwa. Wyd. AE Wrocław, Wrocław 2004.
- 3. Probst G., Raub S., Rohmhard K., Zarządzanie Wiedzą w Organizacji. Oficyna ekonomiczna Kraków 2002.
- 4. Perechuda K., Zarządzanie wiedzą w przedsiębiorstwie, PWN 2005.
- 5. M. Świgoń, zarządzanie wiedzą i informacją, Warszawa 2012.

## SECONDARY LITERATURE:

- 1. Kotarba W.: Zarządzanie wiedzą chronioną w przedsiębiorstwie. Instytut Organizacji i Zarządzania w Przemyśle "ORGMASZ". Warszawa 2001.
- 2. K. C. Laudon, J. P. Laudon, Essentials of management information systems, Pearson Education, New Jersey 2005.
- 3. E. Skrzypek, Zarządzanie wiedzą i informacją w organizacjach gospodarczych, Zeszyty Naukowe SGGW, Warszawa 2012.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr Aldona Dereń, aldona.deren@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Prawno-ekonomiczne uwarunkowania działalności

gospodarczej na rynku UE

Name of subject in English: Legal and Economic conditions for business in the market of

the European Union

Main field of study (if applicable): MANAGEMENT

**Specialization (if applicable):** 

Profile: academic

Level and form of studies: 2nd level, full-time

**Kind of subject: optional** 

Subject code: W08ZZZ-SM0092

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about European integration

#### SUBJECT OBJECTIVES

- C1. Knowledge and understanding of conditions for economic actors in the EU market, under the logic and mechanisms of integration and regulation defining the operation of the single European market.
- C2. To show the impact of the elements of the regulatory environment and economic, resulting from the integration process, the operation of companies and their strategic choices.
- C3. Education skills identification and analysis of conditions resulting from the integration processes in the dimension of content and controls for making business in the EU market and the relevant sources of information in this regard.

#### SUBJECT LEARNING OUTCOMES

The scope of knowledge:

- PEU W01 has ordered knowledge of the legal and economic conditions for making business in the EU market.
- PEU W02 understand the strategic context of the enterprise in a specific economic mechanism of integration and adopted in EU regulations.

The range of skills:

- PEU U01 Able to identify, analyze, and use the right tools and the economic and legal regulations to solve the problems of entry and operation of companies in the EU market.
- PEU U02 Can choose the appropriate source of information on the legal and economic regulation defining the functioning of the EU market, including forms of institutional and financial support to undertake business activities in the market.

The scope of social competence:

PEU K01 - is aware of the opportunities and risks of integration processes. It is prepared to initiate changes in the company based on its knowledge of the matter.

PROGRAMME CONTENT		
	Lectures	Number of hours
Lec1	Economic conditions of the operation of enterprises in the context of European integration	2
Lec2	Implementation of the Single European Market (SEM) as part of the business environment for economic actors	2
Lec3 The impact of selected EU sectoral policies on the behavior of the common market (JRE support policy and politics Curtain)		2
Lec4	Institutional and financial tools to support of business on the European market.	2
Lec5	European organizational and legal forms of business in the EU direction	2
Lec6 Regulations and competition policy in the EU to companies.		2
Lec7	Protection of intellectual property.	2
Lec8	Test	1
	Total hours	15

	Classes	Number of
		hours
Cl1	Strategic analysis of enterprise's environment on the EU market.	2
C12	Adjustment processes of enterprises to the mechanisms and regulation of the European internal market	2
C13	The choice of forms of institutional and financial support of the company's activities in the EU market (practical examples)	2
Cl4	Determine the legal form of business in the European market	2
Cl5	The influence the competition policy business in the EU market.	2
Cl6	Innovation and entrepreneurship in the existing regulations and economic conditions.	2
Cl7	The use regulations of the European patent and trade mark (for selected examples).	2
Cl8	Test	1
	Total hours	15

#### TEACHING TOOLS USED

#### Lecture

- N1. Information lecture
- N2. Multimedia presentation
- N3. Problem lecture

**Exercises** 

- N1. practical exercises
- N2. discussion
- N3. The paper a multimedia presentation

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F	PEU W02 PEU U01, PEU U02 PEU K01	Participation in the discussion Practical exercises, lecture Participation in the discussion
P	PEU W01 PEU W02 PEU U01	Test

#### PRIMARY AND SECONDARY LITERATURE

#### **PRIMARY LITERATURE:**

- [1] A. Cieśliński (red), *Wspólnotowe prawo gospodarcze*, 2.wydanie, Wyd. C. H. Beck, Warszawa 2007.
- [2] K. Gawlikowska, A. Zielińska-Głębocka, *Integracja europejska. Od jednolitego rynku do unii walutowej. Podręcznik ekonomii europejskiej*, Wyd. C. H. Beck, Warszawa 2004.
- [3] A. Ragut, *Małe i średnie przedsiębiorstwa w integracji ekonomicznej*, Wyd. Uniwersytet Łódzki, Łódź 2002.
- [4] K. Wach, Jak założyć firmę w Unii Europejskiej, Wyd. Wolters Kluwer, Kraków 2006.

# **SECONDARY LITERATURE:**

- [1] M. Komor, Euromarketing, Strategie marketingowe przedsiębiorstw na eurorynku, Wyd. PWN, Warszawa 2000.
- [2] E. Kawecka-Wyrzykowska (red.), *Polityka gospodarcza Unii Europejskiej*, Wyd. SGH, Warszawa 2009.
- [3] M. Bednarczyk, *Małe i średnie przedsiębiorstwa w Polsce a integracja europejska*, Wyd. AE w Krakowie, Kraków 2004.
- [4] E. Latoszek (red), Finansowanie MSP w Polsce ze środków finansowych UE jako czynnik wpływający na konkurencyjność przedsiębiorstw, Wyd. SGH, Warszawa 2008.

Aldona Dereń <u>aldona.deren@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Psychologia decyzji i ryzyka Name of subject in English: Psychology of decision and risk

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0102

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

#### SUBJECT OBJECTIVES

- C1 Acquisition of knowledge about the psychological mechanisms involved in making decision
- C2 Knowing of situational and personality determinants of decision-making processes.
- C3. Acquiring of knowledge in the scope of psychological approach to risk in decision-
- C4 acquisition of skills identification of cognitive errors and distortions in decision-making and risk perception
- C5 Mastering the skills of identifying manifestations of bounded rationality in decision-making and risk perception making
- C6. Understanding the role of psychological factors and individual differences in decision-making and financial risk

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge

- PEU\_W01 student knows the nature and operation of psychological mechanisms of decision-making.
- PEU\_W02 he has knowledge of situational and personality determinants decision-making processes.
- PEU\_W03 he has knowledge of the psychological approach to risk in decision-making relating to skills:
- PEU\_U01 He has ability to identify manifestations of bounded rationality in decision-making

and risk perception

PEU\_U02 He can be identified cognitive biases and distortions in the process of risk perception and decision-making

# relating to social competence:

PEU\_K01 he can determine the role of psychological factors and individual differences in risk and decision-making

## PROGRAM CONTENT

TROUGHT CONTENT		
	Lectures	Number of hours
Lec1	Behavioral decision theory. Normative and descriptive models of decision-making and risk	2
Lec2	Model of bounded rationality in decision-making	2
Lec3	General dimensions of the decision. Dimensions decisions in the organization	2
Lec4	Cycles of information processing in the decision making process.  Psychological decision rules	2
Lec5	The role of heuristic in decision making (sources of biases and inclination in decision-making).	2
Lec6	The prospect theory in decision making processes	2
Lec7	Psychological aspects and determinant of risk assessment and decision-making	2
Lec8	The role of emotions in financial risk-taking	1
	Total hours	15

	Seminar	Number of hours
Sem1	Decision-making models - phases. Rational and automatic processes in decision making.	2
Sem2	Cognitive processes in decision-making. Estimating of the subjective probability in decision-making	2
Sem3	Diagnostic heuristics in decision processes Types of cognitive biases and inclination.	2
Sem4	The consequences of prospect theory - biases in risk assessment - The effect of predisposition and the effect of sunk costs	2
Sem5	Rules of integrating alternatives in decision-making	2
Sem6	Quantitative and qualitative dimensions of perceived risk in decision-making	2
Sem7	Individual differences in decision-making and risk perception	2
Sem8	Sources of biases in financial risk estimation	1
	Total hours	15

# **TEACHING TOOLS USED**

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)
- N5 Own work

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester		
end)		
P	PEU_W01 - PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P	PEU_W01 – PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P=2	·	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Nosal C.S. (2001). Psychologia myślenia i działania menedżera., Wrocław, AKADE
- [2] Kozielecki J. (1997). Psychologiczna teoria decyzji. Warszawa: PWN
- [3] Tyszka, T., Zaleśkiewicz, T. (2001). Racjonalność decyzji. Pewność i ryzyko. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- [4] Tyszka, T. (1999). Pułapki oceniania i podejmowania decyzji. Gdańsk: GWP.
- [5] Sokołowska, J. (2005). Psychologia decyzji ryzykownych. Ocena prawdopodobieństwa i modele wyboru w sytuacji ryzykownej. Podręcznik akademicki. Warszawa, Wydawnictwo Szkoły Wyższej Psychologii Społecznej "Academica".
- [6] Goszczyńska M., Studenski R. (red.) (2006). Psychologia zachowań ryzykownych koncepcje badania praktyka. Wydawnictwo: ŻAK

## SECONDARY LITERATURE:

- [1] Simon H., Podejmowanie decyzji kierowniczych, PWE, Warszawa 1982.
- [2] Tyszka T., Analiza decyzyjna i psychologia decyzji, PWN, Warszawa 1986.
- [3] Zaleśkiewicz, T. (2003). Psychologia inwestora giełdowego. Wprowadzenie do behawioralnych finansów. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- [4] Zaleśkiewicz, T. (2005). Przyjemność czy konieczność. Psychologia spostrzegania i podejmowania ryzyka. Gdańsk: Gdańskie Wydawnictwo Psychologiczne
- [5] Sokołowska, J. (2000). Ryzyko: Wyzwanie czy zagrożenie. Psychologiczne modele oceny i akceptacji ryzyka. Warszawa: Wydawnictwo Instytutu Psychologii PAN.
- [6] Lindsay P.H., Norman D.A. (1984). Procesy przetwarzania informacji u człowieka, Warszawa: PWN

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Psychologia ekonomiczna Name of subject in English: Economic psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0103

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total stude nt workload (CNPS)	30				30
Form of crediting	crediting with g				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that requi re direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>niepotrzebne skreślić

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES Psychology of management

#### **SUBJECT OBJECTIVES**

- C1. Knowing the psychological mechanisms related to economic decisions
- C2. Gaining knowledge about the specifics and psychological determinants of economic behavior
- C3. Knowing the mechanisms of perception of money and its behavioral consequences
- C4. Understanding the mechanisms of perception of economic activities, economic expectations of ownership and possession, economic welfare and saving
- C5. Mastering knowledge of the psychological basis of risk perception in the economic behavior and financial decisions

#### SUBJECT LEARNING OUTCOMES

#### Relating to knowledge:

- PEU\_W01 student has a thorough knowledge of the mechanisms and strategies for financial decision making and economic behavior
- PEU\_W02 he understands the difference between normative and behavioral approach to economic behavior.
- PEU\_W03 he recognizes the basic psychological mechanisms that determine economic behavior, such as savings, insurance and investing in the financial markets

## Relating to skills:

- PEU\_U01 he can identify psychological determinants of economic and entrepreneurial behavior
- PEU\_U02 he can identify the source irrational economic and entrepreneurial behavior,
- PEU\_U03 he can diagnose the attitude towards money and its impact on economic behavior

#### Relating to social competences:

PEU\_K01 he is aware of cognitive and emotional limitations of market behavior

PROGRAM CONTENT		
	Lectures	Number of hou
Wy1	Psychology and economics. Normative and descriptive approach to explain economic phenomena. Interest of economic psychology	2
Wy2	Bounded rationality in making financial decisions. The role of emotions in economic behavior	2
Wy3	Psychological mechanisms of perception and its regutational consequences	2
Wy4	Psychological aspects of saving. Mechanisms and motives of the insurance	2
Wy5	Psychology of investing and entrepreneurship	2
Wy6	Subjective factors of economic behavior	2
Wy7	Psychology of gambling and financial risk	2
Wy8	Economic socialization	1
	Total hours	15

	Seminar	Number of hours
Sem1	Economic behavior from the perspective of economics and psychology. The subject of interest of economic psychology.	2
Sem2	Bounded rationality in making financial decisions.	2
Sem3	The role of emotions in economic behavior	2
Sem4	Mechanisms of mental accountingo	2
Sem5	Attitudes and mechanisms of money perceptions and its regulatory implications	2
Sem6	Psychological aspects of saving Mechanisms and motives of the insurance	2
Sem7 Identification of the mechanisms of investment and entrepreneurial behaviors and subjective determinant		2
Sem8 Perception and dimensions of financial risk		1
	Total hours	15

## TEACHING TOOLS USED

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

		<u> </u>
<b>Evaluation</b> (F – forming (dur	Learning outcomes number	Way of evaluating learning outcomes a
ing semester), P - concluding (		chievement
at semester end)		
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P=2		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Brzozowska I.M., Goszczyńska M.(2002). Psychologiczne determinanty skłonności Polaków do oszczędzania. *Czasopismo Psychologiczne*, 2, s.201 210.
- [2] Gasparski P.(1991). Oszczędzanie psychologiczna charakterystyka motywów oszczędzania. Raport z badań. "Ekonomista", 2 3, 347 353, (w teczce).
- [3] Gąsiorowska A. (2003). Kwestionariusz do pomiaru postaw wobec pieniądza Raport niepublikowany.
- [4] Tyszka T, Zaleśkiewicz T. (2004). Psychologia pieniądza. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 6, par. 6.1, 6.4, 6.5, 6.6, s. 161-165 i 177-189.
- [5] Warneryd K.E. (2004).Oszczędzanie. W: T.Tyszka (red). *Psychologia ekonomiczna*. GWWP, roz 17, par.17.1, 17.2, s.530-536, par. 17.4 i 17.5, s. 539- 563. Gasparski P. (1993). Wyznaczniki indywidualnych skłonności do bankowych form oszczędności. *Bank i Kredyt*, 24, 16-21
- [6] Zaleśkiewicz T. (2004). Percepcja działań ekonomicznych W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, s. 82-100, par. 3.2, 3.3.
- [7] Zaleśkiewicz T. (2004). Przedsiębiorczość i podejmowanie ryzyka. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 10, s. 303-331.
- [8] Zaleśkiewicz, T. (2011). Psychologia ekonomiczna. Warszawa: Wydawnictwo Naukowe PWN.
- [9] Zaleśkiewicz, T. (2002). Psychologia inwestora giełdowego. Gdańsk: GWP.

#### SECONDARY LITERATURE:

- [1] Bajcar B., Gąsiorowska A. (2004) *Poznawcze i temperamentalne uwarunkowania postaw wobec pieniędzy*. W: T. Listwan (red.), *Sukces w zarządzaniu kadrami. Perspektywa globalna i lokalna*, Prace Naukowe Akademii Ekonomicznej, nr 1032, Wrocław: Wydawnictwo AE, s. 27-42.
- [2] Bloom, W. (1995) Pieniądz, serce i umysł, Warszawa: Jacek Santorski & Co Wydawnictwo
- [3] Falkowski, A., Zaleśkiewicz, T. (red.) (2012). *Psychologia poznawcza w praktyce. Ekonomia, biznes, polityka*. Warszawa: Wydawnictwo Naukowe PWN.
- [4] Friedman, M. (1994) Intrygujący pieniądz. Z historii systemów monetarnych, Łódź: Wyd Łódzkie
- [5] Gasparski P. (1992). Percepcja ryzyka związanego z decyzjami finansowymi. *Przegląd Psychologiczny*, 2, 153-159.
- [6] Gasparski P. (2000). Psychologia ekonomiczna, Czasopismo Psychologiczne, tom 6, 3-4, 205-213.
- [7] Kozak, A. (2004) *Znaczenie pieniądza*, Lublin: Norbertinum
- [8] Tyszka T. (1997). Psychologia zachowań ekonomicznych. W-wa: PWN, r.8, s.160-178. r.1, s.15-31.
- [9] Wasowicz-Kiryło, G. (2008). Psychologia finansowa. Warszawa: Difin
- [10] Zaleśkiewicz, T. (2010). Psychologia ekonomiczna jako przykład zastosowania nauki w praktyce. W: M. Duczmal, J. Żurawska (red.), *Przedsiębiorczość akademicka – nauka i gospodarka* (s. 162 – 170). Opole: Wydawnictwo Instytut Śląski

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Psychologia procesów poznawczych

Name of subject in English: Cognitive psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0104

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge in psychology

#### **SUBJECT OBJECTIVES**

- C1 To provide knowledge of cognitive processes described from a psychological perspective
- C2 To make students aware of the extent to which cognitive processes are responsible for individual and group behaviors of man
- C3 Encourage group work and active discussion

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Demonstrate in-depth knowledge of the relationship between cognitive processes and behaviors such as decision making, problem solving, and proper assessment of situations, including social ones

PEU\_W02 Identify basic cognitive processes and is aware of their limitations

relating to skills:

PEU\_U01 Is able to formulate research problems as well as analyze and interpret research results

PEU\_U02 Is able to present research results and make their critical analysis

In the field of social competences:

PEU\_K01 Is able to work in a group, is ready to work in a group and manage group work

PEU\_K02 Demonstrate courage in communicating and defending one's views

	PROGRAM CONTENT				
	Lectures	Number of hours			
Lec 1	Mind and cognition. Preliminary issues				
Lec 2	Essence and form of mental representations				
Lec 3	Attention and awareness				
Lec 4	Perception				
Lec 5	Memory and memory activities				
Lec 6	Thinking and reasoning				
Lec 7	Solving problems, issuing courts, making decisions				
Lec 8	Course summary				
	Total hours				
	Seminar	Number of hours			
Sem 1	Organizational matters	1			
Sem 2	Concepts and schema. Positions in disputes over the nature of concepts.	2			
Sem 3	Biology and human behavior	2			
Sem 4	Perception and awareness	2			
Sem 5	Learning and conditioning	2			
Sem 6	Intelligence, cognition and memory	2			
Sem 7	Problem solving processess	2			
Sem 8	Colloquium and summary	2			
	Total hours	15			
	TEACHING TOOLS USED				

## N1. Lecture

- N2. Multimedia presentations of the lecturer
- N3. Multimedia presentations of students
- N4. Discussion

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

concluding (at semester end)	U	Way of evaluating learning outcomes achievement
F1 Multimedia presentations by students		Project evaluation; oral feedback

F2 Evaluation of presentations given by colleagues	Oral feedback
C Test	

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Nęcka, E., Orzechowski, J., Szymura, B. (2006) *Psychologia poznawcza* Warszawa: ACADEMICA Wydawnictwo SWPS & Wydawnictwo Naukowe PWN
- [2] Hock, R. R. (2003) 40 prac badawczych, które zmieniły oblicze psychologii Gdańsk: Gdańskie Wydawnictwo Psychologiczne

## SECONDARY LITERATURE:

- [1] Kalat, J. (2007) *Biologiczne podstawy psychologii* Warszawa: Wydawnictwo Naukowe PWN
- [2] Pinker, S. (2002) *Jak działa umysł* Warszawa: KiW

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Psychologia twórczości i przedsiębiorczości Name of subject in English: Creativity and entrepreneurship psychology

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0114

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7				0,7

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

. Basic knowledge of psychological functioning mechanisms of human

## **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about entrepreneurship types and theories in this field of knowledge
- C2. Awareness of creative thinking stimulators and blockades.
- C3. Getting acquainted with promoting entrepreneurship in the organization rules
- C4. Acquire skills of creative generation of ideas
- C5. Trained the skills of taking different perspectives for analyzing problems

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – Student has extensive knowledge on creative thinking and entrepreneurial activities. Identifies the factors promoting and blocking entrepreneurial behavior both at an individual and group level

relating to skills:

PEU\_U01 – He can analyze the causes and dynamics of entrepreneurial phenomena in the organization, the context of their internal and external conditions. He can identify, analyze and evaluate problems with the promotion and conducting

entrepreneurial activities in the organization

relating to social competences:

- PEU\_K01 Student is prepared to initiate unusual, innovative solutions in organization. He can anticipate internal and external to the organization effects of those innovations. He can think in an entrepreneurial way
- PEU\_K02 Student can interact and work effectively in teamwork forms
- PEU\_K03 Student shows a willingness to identify, critically analyze and solve problems related to innovative activities occurring in the workplace

#### PROGRAM CONTENT Number of Lectures hours The concept of entrepreneurship - theoretical basis Lec 1 Entrepreneurship types; Entrepreneurship theories Lec 2 2 2 The importance of creativity in business Lec 3 Theories of creative problem solving Lec 4 2 Convergent and divergent thinking 2 Lec 5 Subjective and organizational barriers blocking creativity Lec 6 2 Methods of creative thinking measurement; Individual features of the Lec 7 2 creators and entrepreneurs; Lec 8 Final test 2 Total hours 15 Number of Seminar hours The organization of classes, the measurement of motivation to creativity, Sem 1 Elements of creativity training – cooperation Sem 2 Sem 3 Elements of creativity training – abstracting 2 Sem 4 Elements of creativity training – deductive thinking 2 2 Sem 5 Elements of creativity training – inductive thinking 2 Sem 6 metaphors 2 Sem 7 Elements of creativity training – transformation Elements of creativity training – brainstorm Sem 8 2

## **TEACHING TOOLS USED**

15

- N1. Lecture
- N2. Multimedia presentation

Total hours

- N3. Moderated discussion
- N4. Group exercises
- N5. Individual exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(during semester), P –	number	

concluding (at semester end)						
F1	PEU_K01	Oral information				
F2	PEU_K02	Oral information				
C written project and knowledge test evaluation						

## written project and knowledge test evaluation

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] [Necka, E. (2001). Psychologia twórczości. Gdańsk: GWP
- [2] Piecuch, T. (2010). *Przedsiębiorczość. Podstawy teoretyczne*. Warszawa: Wyd. C.H. Beck
- [3] Proctor, T. (2002). Twórcze rozwiązywanie problemów. Gdańsk: GWP
- [4] Skonieczny, J. (2011). Kształtowanie zachowań innowacyjnych, przedsiębiorczych i twórczych w edukacji inżyniera. Wrocław: Wydawnictwo Indygo Zahir Media, cop.

# SECONDARY LITERATURE:

- [1] Duraj, J., Papiernik-Wojdera, M. (2010). *Przedsiębiorczość i innowacyjność*. Warszawa: Difin
- [2] Łaguna, M. (2010). Przekonania na własny temat i aktywność celowa. Badania nad przedsiębiorczością. Gdańsk: GWP
- [3] Morgan, M. (2001). Wyobraźnia organizacyjna. Warszawa: PWN
- [4] Strykowska, M. (red.) (2002). *Współczesne organizacje wyzwania i zagrożenia*. Poznań: Humaniora
- [5] West, M. (2000). Rozwijanie kreatywności wewnątrz organizacji. Warszawa: PWN

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, <u>beata.bajcar@pwr.edu.pl</u>

## SUBJECT CARD

Name of subject in Polish: Rachunkowość zarządcza Name of subject in English: Managerial accounting Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0033

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have basic knowledge in accounting and finance

# SUBJECT OBJECTIVES

- C1 Acquiring knowledge about the essence of management accounting and cost accounting models, their genesis as well as classification and specificity
- C2 Acquiring the ability to analyse the costs of their planning, forecasting and optimization as well as calculationsC2

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Demonstrate ordered knowledge of the nature of management accounting and cost accounting as well as their genesis and development stages in Poland and in the world.
- PEU\_W02 Characterize and know the methods and concepts of cost accounting and management accounting tools.

relating to skills:

- PEU\_U01 Is able to list, discuss, and indicate the differences between cost accounting models and their impact on the financial result.
- PEU\_U02 Is able to, in practice, perform cost calculations and perform cost analyses, their planning, forecasting and optimization.

relating to social competences:

- PEU\_K01 Is aware of the importance of management accounting in business practice, primarily its role in providing the management of the organization with economic information necessary to secure the organization's management processes, including the performance of its basic functions.
- PEU\_K02 Is prepared to collect, process and present financial and non-financial information about the project and the company and its environment, which aims to support managers in making operational and strategic decisions.

	PROGRAM CONTENT	Number of		
Lectures				
Lec 1	The essence and scope of managerial accounting - its place in the infernal system in management, genesis and evolution	1		
Lec 2	Concept, classification, grouping and cost settlement procedures - rules, stages, directions	2		
Lec 3	Calculation of costs - essence, subject, tasks of calculation (division and additional calculation, detailed calculation methods).	2		
Lec 4	Cost accounting models in management accounting - concepts of cost accounting models and criteria for their classification, cost accounting models and material and time scope, variations of cost accounting, control and decision accounts and types: (variable cost accounting, standard cost accounting, activity cost accounting).	2		
Lec 5	Other cost accounting models: (product life cycle costing, target costing, continuous improvement costing, costing, quality)	2		
Lec 6	Price decisions and short-term decision accounts - price-setting factors, price determination methods, setting boundaries, assortment structure selection and production technology	2		
Lec 7	Budgeting as an enterprise management method - the essence, role and classification of budgets, budgeting methods, structure and stages as well as enterprise budget procedures	2		
Lec 8	Final test	2		
	Total hours	15		
	Classes	Number of hours		
Cl 1	Grouping of costs in accounting records	1		
Cl 2	Costs accountable	2		
C1 3	Calculation of costs	2		
Cl 4	Classic cost accounts	2		
Cl 5	Other cost accounting models	2		
Cl 6	Pricing and selection of assortment structure and technology	2		
Cl 7	Budgeting and deviation analysis	2		
C1 8	Final test	2		
	Total hours	15		
	TEACHING TOOLS USED			

- N1. Informative lecture
- N2. Multimedia presentation
- N3. Practical exercises

# **EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT**

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_K01 PEU_K02	Written final test and oral amendment
F2	PEU_U01, PEU_U02 PEU_K01 PEU_K02	Assessment of the degree of commitment to the problems being solved
F3	PEU_U01, PEU_U02	Assessment of the budget semester task
F4	PEU_U01, PEU_U02	Final test

C (Lec) = F1

C (C1) = 0.1\*F2+0.3\*F3+0.6\*F4

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Rachunkowość zarządcza w przedsiębiorstwie (wyd. II), Edward Nowak, CeDeWu, 2018
- [2] RACHUNKOWOŚĆ ZARZĄDCZA, Zadania i testy, Anna Szychta, Justyna Dobroszek, Przemysław Kabalski, Wydawnictwo Uniwersytetu Łódzkiego, 2016
- [3] Rachunkowość zarządcza i rachunek kosztów. T. 1/S. Sojak. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa "Dom Organizatora", 2012.
- [4] Rachunkowość zarządcza. Analiza i interpretacja, Opracowanie zbiorowe, Wolters Kluwer, 2013
- [5] Rachunkowość Zarządcza I Rachunek Kosztów, Anna Karmańska, DIFIN, 2009

#### SECONDARY LITERATURE:

- [6] Rachunek kosztów i rachunkowość zarządcza :teoria i praktyka /red. nauk. E. Nowak. Wrocław : Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, 2011.
- [7] Rachunkowość zarządcza /A.A. Jaruga, P. Kabalski, A.Szychta. Warszawa: Wolters Kluwer, 2010.
- [8] Rachunkowość zarządcza przedsiębiorstw. Rachunek kosztów/ D. Sołtys (red), Wyd AE Wrocław 2009.
- [9] Rachunkowość w zarządzaniu kosztami i wynikami przedsiębiorstwa /K. Kobiela-Pionnier. Warszawa: Vizja Press & IT, 2010.
- [10] Rachunek kosztów i rachunkowość zarządcza / G. K Świderska. (red), Stowarzyszenie Księgowych w Polsce, Warszawa 2008

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Agnieszka Parkitna <u>agnieszka.parkitna@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

## SUBJECT CARD

Name of subject in Polish: Rozwiązywanie konfliktów w organizacji Name of subject in English: Problem resolving in Organization

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0105

Group of courses: NO

-					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	- 9 -				0,7

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

# **SUBJECT OBJECTIVES**

- C1. Acquiring knowledge by the student in the field of interpersonal, group and organizational conflicts.
- C2. To familiarize students with the methods of conflict resolution in groups and organizations.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01The student has knowledge of psychological mechanisms and factors conducive to the emergence of conflicts.

PEU\_W02 Knows methods of analyzing conflict situations and solving the relating to skills:

PEU\_U01 Able to identify, interpret and evaluate conflict situations.

PEU\_U02 - Is able to independently prepare a conflict situation analysis.

relating to social competences:

PEU\_K01 Demonstrate readiness to identify problems in the area of conflict resolution in the organization.

PEU\_K02 – Is able to independently seek additional knowledge and develop their skills in the field of conflict resolution.

	PROGRAM CONTENT				
	Lectures	Number of hours			
Lec 1	Conflicts - causes, functions, typologies.	1			
Lec 2	Dynamics in task and natural groups.	2			
Lec 3	The course of conflict situations.	2			
Lec 4	Phenomena accompanying conflicts - aggression, prejudices, stereotypes.	2			
Lec 5	Ways to resolve conflicts.	2			
Lec 6	Culture determinants of conflicts and the negotiation process.	2			
Lec 7	Social Negotiation	2			
Lec 8	Final test and summary	2			
	Total hours	15			
	Seminar	Number of hours			
Sem 1	Introduction. Organizational classes.	1			
Sem 2	Identification of features of conflict situations	2			
Sem 3	Simulation of a conflict situation – group A	2			
Sem 4	Simulation of a conflict situation – group B	2			
Sem 5	Simulation of a conflict situation – group C	2			
Sem 6	Simulation of a conflict situation – group D	2			
Sem 7	Simulation of a conflict situation – group E	2			
Sem 8	Presentation and analysis of student reports	2			
	Total hours	15			
	TEACHING TOOLS USED				

# N1. Lecture

- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works
- N6. Presentation of reports prepared by students

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
F1 Activity during classes	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
F2 Works prepared in groups	DELL MAG	Oral feedback. Work evaluation
C Student analytical report, final test		

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. McKay, M., Davies, M., Fanning, P. (2001), Sztuka skutecznego porozumiewania się, Sopot, GWP
- 2. Fisher, R., Ury, W., Bruce, P. (1994). Dochodząc do tak. Warszawa, PWE
- 3. Necki, Z. (1999). Negocjacje w biznesie. Kraków, Wyd. Prof. Szkoły Biznesu
- 4. Witkowski, T, Chełpa, S. (2003) *Psychologia konfliktów*. Wrocław, Wydawnictwo Mediator

# SECONDARY LITERATURE:

- 1. Berne, E. (2004) W co grają ludzie,
- 2. Wojciszke, B. (2001) Człowiek wśród ludzi.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

## SUBJECT CARD

Name of subject in Polish: Statystyka matematyczna i ekonometria

Name of subject in English: Statistics and ekonometrics

Main field of study (if applicable): Management

Specialization (if applicable): Financial Management, Entrepreneurship, Innovations and Projects, Information Technologies in Management, Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0034

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.		0,7		

\*delete as applicable

## PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of descriptive statistics.

## **SUBJECT OBJECTIVES**

- C1: Acquiring knowledge of the methods of mathematical statistics and construction of economic models.
- C2: Mastering the skills of statistical inference and building economic models based on statistical data.
- C3: Mastering the ability to use statistical software in statistical analysis and econometric modeling.
- C4: Acquiring specific social competences to independently improve their knowledge, defend their own views in a professional and ethical manner.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 He has basic knowledge of mathematical statistics methods.

PEU\_W02 He has basic knowledge of econometrics.

relating to skills:

PEU\_U01 He is able to apply statistical and econometric methods in solving decision problems in management processes.

relating to social competences:

PEU\_K01 The student is able to independently develop their knowledge and skills. The student is able to interact and work in teams. The student shows readiness to identify, analyze and solve problems in the field of identification and analysis of decision problems. The

student is ready to create and solve decision models in the management information system environment.

PEU\_K02 The student is able to professionally seek and choose methods for solving decision problems and take responsibility for them. The student is able to convey and defend their own views related to the selection and application of mathematical and IT methods and tools in making decisions.

# PROGRAM CONTENT

	Lectures				
Lec 1	The parameters of a random variable	2			
Lec 2	Cumulative distribution function, selected distributions and their parameters.	2			
Lec 3	The normal distribution, the central limit theorem.	2			
Lec 4	Confidence interval. Interval estimation when the sample size is small.	2			
Lec 5	Confidence interval. Interval estimation when the sample size is large.	2			
Lec 6	Parametric hypothesis testing.	2			
Lec 7	Comparing two populations. Comparing parameters, comparing distributions.	2			
Lec 8	Non-parametric hypothesis testing.	2			
Lec 9	Basics of econometrics. Economic models.	2			
Lec 10	Gauss-Markov assumptions. The metod of least squares.	2			
Lec 11	Statistical packages. Verification of econometric models.	2			
Lec 12	Examples of linear models.	2			
Lec 13	Examples of nonlinear models.	2			
Lec 14	Multiple-equation econometric models.	2			
Lec 15	End of course test.	2			
	Total hours	30			
	Laboratory	Number of hours			
Lab 1	Descriptive statistics.	2			
Lab 2	The normal distribution.	2			
Lab 3	Confidence intervals.	2			
Lab 4	Parametric hypothesis testing.	2			
Lab 5	Non-parametric hypothesis testing.	2			
Lab 6	Analysis of variance.	2			
Lab 7	Econometric models.	2			
Lab 8	End of course test.	1			
	Total hours	15			

# TEACHING TOOLS USED

- N1. A multimedia presentation.
- N2. Computer assisted data analysis.
- N3. Presentation of the project.
- N4. Written test.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
` '		Partial credit based on knowledge of statistical packages and a prepared project.
P (lectures)	PEU_W01 PEU_W02	Written test.

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

[1] Amir D. Aczel: Statistics in management, PWN, Warsaw 2006.[2] G.S. Maddala: Econometrics, PWN, Warsaw, 2006.

# SECONDARY LITERATURE:

- [1] Any handbook on statistics and econometrics.
- [2] Software manual

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Skowrońska-Szmer, <u>anna.skowronska-szmer@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Systemy wspomagania decyzji Name of subject in English: Decision Support Systems Main field of study (if applicable): Management

Specialization (if applicable): Information Technologies in Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0069

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of data analysis techniques and tools
- 2. Basic experience in applications of quantitative methods and models for solving management problems

## **SUBJECT OBJECTIVES**

- C1 to introduce basics of advanced business analytics, based on machine learning and artificial intelligence (knowledge engineering)
- C2 to develop knowledge of taxonomies of intelligent decision support technologies
- C3 to understand and compare implementations of intelligent techniques in selected advanced analytics software packages
- C4 to present fundamentals of unstructured data analytics

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 knows the subject matter of business analytics, distinguishes main categories of decision support and advanced business analytics systems
- PEU\_W02 has basic knowledge of selected intelligent information technologies, based on symbolic approaches (e.g. rule-based systems) and non-symbolic approaches (e.g. neural networks), as well as machine learning approaches

## relating to skills:

- PEU\_U01 can select and prepare for analysis business data for a particular decision problem, as well as select appropriate methods and tools of data analysis using particular analytical packages
- PEU\_U02 knows how to apply selected information technologies of business analytics implemented in available analytical packages, for performing exploratory data analysis and dimension reduction, as well as for applying classification, clustering and regression techniques

relating to social competences:

PEU\_K01 can interact and work in a team to solve a specific task with a clear distinction of the role of and input by individual members of the project team

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to data science. Fundamentals of Predictive Analytics	2
Lec 2	Analytic process: attribute selection, dimension reduction, CRISP approach	2
Lec 3	Machine Learning Basics. Introduction to RapidMiner	2
Lec 4	Processing imperfect data: data cleansing, missing data, imbalanced data	2
Lec 5	Approaches and techniques of predictive and prescriptive analytics	2
Lec 6	Unstructured data analytics – text mining	2
Lec 7	Taxonomies of analytical techniques. Elements of knowledge engineering. Advanced analytic systems	2
Lec 8	Written test	1
	Total hours	15
	Laboratory	Number of hours
Lab 1	Discussion of laboratory rules, tasks, data and software	1
Lab 2	Predictive analytics in Tableau with R: classification, clustering, and regression models	2
Lab 3	Introduction to predictive analytics in WEKA. WEKA Explorer	2
Lab 4	Analytic process in WEKA: Knowledge Flow	2
Lab 5	Introduction to analytics in RapidMiner. AutoModel. Direct marketing	2
Lab 6	Churn Modelling. Classification and clustering in RapidMiner Design	2
Lab 7	Unstructured data analytics in RapidMiner	2
Lab 8	Final individual analytical task. Optional presentation of group project results	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia presentations
- N2. Teaching materials published on WUST e-portal
- N3. Tableau Desktop with R scripts in R-Studio
- N4. WEKA Explorer, WEKA Knowledge Flow
- N5. RapidMiner Studio
- N6. Optional other analytical packages as available (eg.. SAS Visual Data Mining and Machine Learning)

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
` ′	PEU_U01, PEU_U02	On-going assessment of lab work
` '	PEU_U01, PEU_U02	Assesment of group project work (optional)
` '	· ·	Assessment of the results of individual analytical task
` '	PEU_W01, PEU_W02	Test (written)

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Larose D.T. (2006) Odkrywanie wiedzy z danych: wprowadzenie do eksploracji danych, WN PWN
- [2] Larose D.T. (2008) Metody i modele eksploracji danych, WN PWN
- [3] Foreman J.W. (2017) Mistrz analizy danych. Od danych do wiedzy, Helion
- [4] Szeliga M. (2017) Data Science i Uczenie Maszynowe, WN PWN

# SECONDARY LITERATURE:

- [1] Sharda R., Delen D., Turban E., Analytics, Data Science, and Artificial Intelligence: Systems for Decision Support, Pearson 2020
- [2] Markov Z., Larose D.T. (2009) Eksploracja zasobów internetowych analiza struktury, zawartości i użytkowania sieci WWW, WN PWN
- [3] Natingaa D. (2019) Algorytmy Data Science. Siedmiodniowy przewodnik, Helion
- [4] Provost F., Fawcett T. (2015) Analiza danych w biznesie. Sztuka podejmowania skutecznych decyzji, Helion
- [5] Schutt R., O'Neil C. Doing Data Science: Straight Talk from the Frontline, O'Reilly Media, 2013 (Badanie danych. Raport z pierwszej linii działań, Helion, Warszawa, 2015)
- [6] Szeliga M. (2019) Praktyczne uczenie maszynowe, WN PWN

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marek Lubicz, <u>marek.lubicz@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name of subject in Polish: Umowy w obrocie gospodarczym

Name of subject in English: Agreement in trade Main field of study (if applicable): Management

**Specialization (if applicable):** 

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0093

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge the law

## **SUBJECT OBJECTIVES**

- C1 showing the importance of the agreements, as the primary vehicle for the exchange of goods and services in a market economy
- C2 characteristics of the agreements as an instrument for correcting market failure (such as intervention buying or selling products, raw materials or currency), or leading to the achievement of certain social consequences (eg, public works to stimulate the labor market)
- C3 characteristics of economic agreements applicable to business

# SUBJECT EDUCATIONAL EFFECTS

The scope of knowledge:

PEU\_W01 - knows what agreement is, how to conclude it and other mains rules in business transactions

PEU\_W02 - knows types of entitiens in business transactions and rules of solving contract disputes between them

# Relating to skills:

PEU\_U01 - is able to make the correct interpretation of the laws, can edit a draft of agreement and is able to assess the impact of its conclusion

# The scope of social competence:

PEU\_K01 - is aware of the need to develop their own knowledge and professional skills.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec1	Obligations of the contract as a source of	1
Lec2	The principle of freedom of contract and its practical consequences for the economic	1
Lec3	Concept and types of contracts	1
Lec4	General characteristics of economic agreements	1
Lec5	The methods and procedures for contract	1
Lec6	Legal nature of the contract preparation activities standard contracts	1
Lec7	Implementation of trade agreements - practical aspects	
Lec8	Trade agreements in cross-border	1
Lec9	Trade agreements in cross-border	1
Lec10	Characteristics of contracts related to trading in financial instruments in the capital market	1
Lec11	Licensing agreements in the enterprise market activity	1
Lec12	Characteristics of selected banking agreements	1
Lec13	Contractual litigation. Arbitration clause	1
Lec14	The use of mediation and arbitration of contractual disputes	1
Lec15	European contract law	1
	Total hours	15
	Classes	Number of hours
Cl1	The contract of sale and its regulation in the Civil Code	2
C12	The supply Agreement	2
C13	Economic importance of the lease	2
Cl4	Tax effects of the leasing agreement	2
C15	Franchise agreement	2
Cl6	Credit Agreement and its characteristics	2
Cl7	Contract as a source of obligations under European law	3
	Total hours	15

	TEACHING TOOLS USED	
N1. N1. informative lecture		
N2. multimedia presentation		
N3 lecture problem		

## EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

\ 0	Educational effect number	Way of evaluating educational effect achievement
	PEU_W01 PEU_W02	written test
D_1		

#### P=1

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Koch A., Napierała J., Umowy w obrocie gospodarczym, Wyd. Wolters Kluwer, Warszawa 2011
- [2] Rajski J., Prawo o kontraktach w obrocie gospodarczym, Warszawa 2005
- [3] Gospodarek J., Umowy gospodarcze. Wybrane zagadnienia, Oficyna Wydawnicza SGH, Warszawa 2010
- [4] Ustawa z dnia 23 kwietnia 1964 r. Kodeks cywilny (Dz. U. z 1964 r., Nr 16, poz. 93 z późn. zm)
- [5] Turzyński M., Umowy leasingu w prawie podatkowym i bilansowym, Wyd. Wolters Kluwer Business, Warszawa 2009
- [6] Budzyński W., Umowy w handlu krajowym i zagranicznym, Wyd. Poltex, Warszawa 2012 **SECONDARY LITERATURE:**
- [1] Radwański Z. Ponowisz Lipska J. "Zobowiązania. Część szczegółowa" Wydawnictwo C.H. Beck, Warszawa 2001
- [2] Czachórski W., Zobowiązania, Wydawnictwo Prawnicze, Warszawa 2002
- [3] Władyka S.,(red.), Prawo umów w obrocie gospodarczym, Wyd. C.H. Beck, Warszawa 2001
- [4] Ciepła H.., Pieniek G., komentarz do kodeksu cywilnego. Księga III Zobowiązania Tom 2, Wydawnictwo prawnicze, Warszawa 2001
- [5]Stec M., Prawo umów w obrocie gospodarczym, pod. red S. Władyki, Wyd. C.H. Beck, Warszawa 2001
- [6] Koch A., Napierała J., Prawo spółek handlowych, Wyd. Wolters Kluwer, Warszawa 2011

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Aldona- Malgorzata Dereń aldona.deren@pwr.edu.pl

## **SUBJECT CARD**

Name in Polish: Zarządzanie Strategiczne Name in English: Strategic Management

Main field of study (if applicable): Management

Specialization (if applicable):

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			30	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			1	1
including number of ECTS points for practical (P) classes				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

# **SUBJECT OBJECTIVES**

C1 Obtaining knowledge about strategic management

C2 Introduce instruments (strategies, models and methods), that support strategic management

C3 Acquire by students skills for practice strategic management tools

# SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Students know the idea of strategic management

PEU\_W02 Knowledge about variety of strategies

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a strategy

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of strategic management

Relating to social competences:

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Sem 8	Strategy implementation	2
	Total hours	15

# **TEACHING TOOLS USED**

- N1. Multimedia performance
- N2. Reports
- N3. Selected statistical data

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the student activity by checking list of presence (lecture, seminar, project)
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the knowledge by exam, preparing the project and seminar performance
F3	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, project, seminar)

P = 0.25F1 + 0.5F2 + 0.25F3

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [[1] Gierszewska G., Olszewska B., Skonieczny J., **"Zarządzanie strategiczne dla inżynierów"** PWE Warszawa 2013
- [2] **Zarządzanie strategiczne. Systemowa koncepcja biznesu**, pod red. M. Moszkowicza, PWE Warszawa 2005

# SECONDARY LITERATURE:

- [1] Obłój K., "Pasja i dyscyplina strategii" Wydawnictwo Poltex 2010
- [2] Krawiec F., "Zarządzanie strategią firmy", Difin, Warszawa2011
- [3] Świda A., "Strategic Management", Wroclaw University of Technology, Wrocław 2011
- [4] "O strategii" Harvard Business Reviev Polska 2012
- [5] Gierszewska G., Romanowska M., "Analiza strategiczna", PWE Warszawa 2009

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zespół ds. strategii: dr inż. Piotr Kubiński, <u>piotr.kubinski@pwr.edu.pl</u>; dr inż. Jan Skonieczny; jan.skonieczny@pwr.edu.pl; dr inż. Adam Świda <u>adam.swida@pwr.edu.pl</u>;

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name in Polish: Zarządzanie wartością przedsiębiorstwa

Name in English: Value Based Management Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0043

Group of courses: NO

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	90			60	
Form of crediting	Examination			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	3			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of methods of time value of money calculation
- 2 Knowledge of the basic financial statements
- 3 Ability to perform simple mathematical calculations

# **SUBJECT OBJECTIVES**

- C1 Concept of organization value and the factors influencing the value
- C2 Understanding the purpose and function of the organization valuation
- C3 Knowledge of methods of organization valuing and use them in the management process

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 knows the objectives and functions of the valuation

PEU\_W02 knows methods of company valuation

PEU\_W03 knows the tools of value pricing and their use in management

relating to skills:

PEU\_U01 understand the objectives of the company value pricing

PEU\_U02 can use assets valuation methods to company valuation

PEU\_U03 can develop a financial model and prepare a company value by income methods,

# including DCF

relating to social competences:
PEU\_K01 Is conscious the role of company value in the economy

	Lectures	Nu	mber of hours
Lec 1 Introduction	n. The concept of value and the company value		2
Lec 2 The object:	ives and functions of the pricing process		2
Lec 3 Classificati	on of the factors of values		2
Lec 4 Classificati	on of methods of pricing		2
Lec 5 Assets and	Comparative Methods		2
Lec 6 Income me	c 6 Income methods 2		
Lec 7 Value base	d management process	2	
Lec 8 test		1	
Total hours	S		15
	Project		Number of hours
Proj 1 Introduct	ion		2
Proj 2 Valuation	n of the selected company by assets method		6
Proj 3 Valuation	n of the selected company by DCF method		6
Proj 4 Presentat	ion of results		1
Total hou	ırs		15
	TEACHING TOOLS USED		

- N2. Problems resolving
- N3. Computational exercises

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEK_W03, PEU_U01 ÷ PEK_U03, PEU_K01	Exam
Pr1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Project evaluation
P1		

# PRIMARY LITERATURE:

- [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa, 1995.
- [2] ICKIEWICZ J., Strategia finansowania przedsiębiorstwa, Poltext, Warszawa, 1993.
- [3] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [4] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

# SECONDARY LITERATURE:

- [1] [JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting, AE, Wrocław 1994.
- [2] Pluta W., Strategie inwestowania, Wyd. PLACET, Warszawa, 1995.
- [3] Levy H., Sarnat M., *Capital investment and Financial Decisions*, Prentice Hall, Hrertforshire, 1994
- [4] LUMBY S., *Investment Appraisal and Financial Decisions*, London, Chapman & Hall, 1996
- [5] Cwynar A., Systemy VBM i zysk ekonomiczny : projektowanie, wdrażanie, stosowanie, 2010
- [6] Damodaran A., Finanse korporacyjne : teoria i praktyka 2007

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

## **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Zespołami Ludzkimi

Name of subject in English: Team management Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0106

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,,,				0,7

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

## **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about the principles of group functioning
- C2 Understanding the role of the leader in the group
- C3 Acquiring knowledge about the possibilities of using HRM tools for group management
- C4. Acquiring the ability to manage a task group

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student knows the basic principles of group functioning

PEU W02 Student knows what team management is like

relating to social competences:

PEU\_K01 Is able to set priorities in own work and in cooperation with others, is able to interact and work in a group

PEU\_K02 Is able to influence the members of the group in order to perform the task effectively

PEU\_K03 Apply adequate motivational and communication tools in the work of a leader

	PROGRAM CONTENT				
	Lectures	Number of hours			
Lec 1	Why are groups so important for everyone?	1			
Lec 2	The process of group formation and group dynamics	2			
Lec 3	Authority and leadership	2			
Lec 4	The role of the leader in the group	2			
Lec 5	Composing teams by a leader	2			
Lec 6	The use of HRM tools for effective group management	2			
Lec 7	Social identity, intergroup attitudes	2			
Lce 8	Final test and summary	2			
	Total hours	15			
	Seminar	Number of hours			
Sem 1	Introduction. Features of an effective leader	1			
Sem 2	Identifying your strengths in team roles	2			
Sem 3	Team work simulation - leader A	2			
Sem 4	Team work simulation – leader B	2			
	Team work simulation – leader C	2			
Sem 5	Town World Still S				
	Team work simulation – leader D	2			
Sem 6		2 2			
Sem 6 Sem 7	Team work simulation – leader D				

# N1. Lecture

- N2. Group exercises
- N3. Simulations
- N4. Team work

# N5. Discussion of problems and results of works N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

(during semester), P –	number	Way of evaluating learning outcomes achievement			
concluding (at semester end)					
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback			
groups	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEK_K02	Oral feedback. Work evaluation			
C Student analytical report, final test					

# PRIMARY AND SECONDARY LITERATURE

# **PRIMARY LITERATURE:**

- 1. Belbin, M. (2009). Zespoły zarządzające. Sekrety ich sukcesów i porażek. Warszawa: wyd. Kluwer
- 2. Lencioni P. (2016). Pięć dysfunkcji pracy zespołowej. Gdańsk: GWP
- 3. Duhigg Ch. (2016). Mądrzej, szybciej, lepiej. Warszawa: PWN
- 4. Kożusznik, B. (2005). Wpływ społeczny w organizacji. Warszawa: PWE

# SECONDARY LITERATURE:

- 1. Cialdini R. (2016). Wywieranie wpływu na ludzi. Teoria i praktyka. Gdańsk: GWP
- 2. Stephan, W., Stephan, C. (2007). Wywieranie wpływu przez grupy. Gdańsk: GWP

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska <u>anna.borkowska@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Zintegrowane systemy informatyczne zarządzania Name of subject in English: Integrated Management Information Systems

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0036

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	60		30		
Form of crediting	Examination		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		0,7		

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

- 1. theory of organisation and management
- 2. essentials of enterprise management
- 3. basics of computer science

# SUBJECT OBJECTIVES

- C1 Knowledge of integrated management information systems (IMIS)
- C2 Ability to use ERP IMIS
- C3 Knowledge of the implementation of IMIS

## SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 – knowledge of MIS classifications

PEU\_W02 – knowledge of rules of MIS integration

PEU\_W03 – knowledge of basic functions in business areas of MIS

PEU\_W04 – knowledge of MIS history and new approaches

PEU\_W05 – knowledge of the MIS implementation in the organization

PEU\_W06 – knowledge of rules of selecting MIS

PEU\_W07 – knowledge of human aspects of the MIS implementation

PEU\_W08 – knowledge of gathering requirements before the MIS implementation (e.g. business process modeling)

PEU\_W09 – knowledge of risk factors in the MIS implementation

# relating to skills:

PEU\_U01 – ability to classify a MIS

PEU\_U02 – ability to find differences between MRP – MRPCL – MRPII – MRPIII – ERP – ERPII

PEU\_U03 – ability to plan implementation of MIS

PEU\_U04 – ability to find and minimalize risk factors during the MIS implementation

PEU\_U05 – ability to set goals for the MIS implementation

PEU\_U06 – ability to plan trainings for users of MIS

PEU\_U07 – ability to analyze functionality of ERP system

PEU\_U08 – ability to model business process

PEU\_U09 – ability to prepare and present own approach to the MIS implementation

# relating to social competences:

PEU\_K01 – ability to searching for information and analyzing

PEU\_K02 – developing ability to think independently and creatively

PEU\_K03 – understand the importance of business requirements in the design and implementation of information systems

PEU\_K04 – developing entrepreneurial thinking

PEU\_K05 – developing the skills of group working

	PROGRAMME CONTENT					
	Form of classes - lecture Number of hours					
Lec 1	Introduction	2				
Lec 2	Management Information Systems	2				
Lec 3	Typology of informational systems at the angle of primary criterions. Types MPR II/ERP.	2				
Lec 4	APICS standards (MRP, MRPII)	2				
Lec 5	Classification of integrated systems according to APICS standards (MRP, MRP-CL, MRPII, MRPII+/MRPIII)	2				
Lec 6	ERP systems	2				
Lec 7	ERP II systems	2				
Lec 8	CRM and PRM systems	2				
Lec 9	Service Oriented Architecure (SOA) and mobile technologies in management	2				
Lec 10	General characteristics of management information system sets	2				
Lec 11	Informatics strategies of enterprise management	2				
Lec 12	Choosing and implementation of system set	2				
Lec 13	Training and coaching during IMIS implementation	2				
Lec 14	Implementation risks	2				
Lec 15	Conclusion	2				
	Total hours	30				
	Form of classes - laboratory Nu					
Lab 1 In	stroduction to ERP system	2				
	eneral settings	2				
Lab 3 C	alculation of product's costs	2				

Lab 4	Purchasing orders (PO)	2
Lab 5	Work orders (WO)	2
Lab 6	MRP planning	2
Lab 7	Analysis of selected area of ERP system	2
Lab 8	Conclusion	1
	Total hours	15

## TEACHING TOOLS USED

- N1. Traditional lecture
- N2. Using MIS tool
- N3. Work with the teacher
- N4. Self-learning for labs
- N5. Self-learning for lectures

## EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W09 PEU_U01–PEU_U06 PEU_K01 PEU_K03	test
F2	PEU_U07 -PEU_U09 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the seminar and lab work

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Jerzy Kisielnicki: MIS Systemy informatyczne zarządzania, PLACET, 2009
- [2] Zbigniew Klonowski: Systemy informatyczne zarządzania przedsiębiorstwem : modele rozwoju i właściwości funkcjonalne, Oficyna Wydawnicza Politechniki Wrocławskiej, 2004
- [3] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [4] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [5] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

# SECONDARY LITERATURE:

- [1] Czasopismo Computerworld
- [2] Czasopismo Teleinfo
- [3] Materiały szkoleniowe dostawcy wybranego systemu klasy ERP

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl

## **SUBJECT CARD**

Name of subject in Polish: Badania Operacyjne Name of subject in English: Operations Research Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0037

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Examination		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in algebra and logic
- 2. Basic skills in computer programming

#### SUBJECT OBJECTIVES

- C1. Showing students the basic optimization problems such as: linear programming, integer programming and network flow problems; indication of the practical applications of these problems.
- C2. Showing students the basic methods of solving the above problems.
- C3. Acquisition by students of the ability to identify decision variables, input data and objectives in practical decision situations and build a mathematical programing model.
- C4. Acquisition by students of the ability to interpret the solutions of the optimization models.
- C5. Presenting the software for solving optimization problems.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Has specialist knowledge of the basic methods used in operational research.

relating to skills:

PEU\_U01 - Is able to apply operational research methods as a tool supporting advanced decision-making analyzes.

PEU\_U02 - Is able to use specialized software for building and solving optimization models.

#### PROGRAM CONTENT Number of Lectures hours Operations research methodology; linear programming problem and its 1 Lec 1 applications. Graphical method and the simplex algorithm for linear programming. 2 Lec 2 2 The simplex algorithm and sensitivity analysis for linear programming. Lec 3 Integer programming and its applications. 2 Lec 4 Branch and bound algorithm for integer programming. 2 Lec 5 Basic network problems, part I (the shortest path and and maximum flow 2 Lec 6 problems). Basic network problems, part II (transportation problem). 2 Lec 7 Multicriteria programming – applications and solution methods. 2 Lec 8 15 **Total hours** Laboratory Number of hours Introduction. Presentation of optimization software. Graphical method of solving Lab 1 linear programming problems. 2 Lab 2 Building and solving linear programming models for practical problems. Lab 3 Building and solving linear programming models for practical problems. 2 Lab 4 Building and solving linear programming models for practical problems. 2 Lab 5 Building and solving linear programming models for practical problems. 2 Solving linear programming problems by using the simplex algorithm. Sensitivity Lab 6 2 analysis in linear programming. Building and solving integer programming models for practical problems. 2 Lab 7 Building and solving integer programming models for practical problems. 2 Lab 8 2 Lab 9 Building and solving integer programming models for practical problems. Lab 10 Solving integer programming problems using the branch and bound algorithm. 2 Lab 11 Building and solving network flow models for practical problems. 2 Lab 12 Building and solving network flow models for practical problems. 2 Lab 13 Building and solving network flow models for practical problems. 2 Lab 14 Preparation for the test. 2

#### TEACHING TOOLS USED

30

N1. Presentation

Lab 15 Written test.

Total hours

- N2. Solving tasks
- N3. Using optimization software

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(duffing sefficater), I	number	
concluding (at semester		
end)		
P	PEU_W01	Examination
	PEU_U01 PEU_U02	Written test
P=1		

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] H. Taha. Operations research. An introduction. Prentice Hall 2011
- [2] F. S. Hiller, G. J. Liberman. Introduction to operations research. Mc Graw Hill 2003
- [3] W. L. Winston. Operations research: applications and algorithms. PWS-KENT Publishing Company 1987
- [4] H. Wagner. Badania operacyjne. PWE Warszawa 1980.

# SECONDARY LITERATURE:

- [1] H. P. Williams. Model building in mathematical programming. Wiley 1990.
- [2] R.K. Ahuja, T. L. Magnanti, J. B. Orlin. Network flows: theory, algorithms and applications. Prentice Hall, Inc., 1993
- [3] R.S. Garfinkel, G. L. Nemhauser. Programowanie całkowitoliczbowe. PWN, 1978
- [4] M. S. Bazaraa, J. J. Jarvis, H. D. Sherali. Linear programming and network flows. Wiley 2010.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

## **SUBJECT CARD**

Name in Polish: Controlling Name in English: Controlling

Main field of study (if applicable): Zarządzanie (Management)

Specialization (if applicable): -

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0038

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	60			60	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	2			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management and the fundamentals of accountancy.

# **SUBJECT OBJECTIVES**

- C1 To provide the students with the fundamental knowledge about the essence of controlling.
- C2 To provide the students with the knowledge about the functional and organizational solutions of controlling.
- C3 To provide the students with the knowledge about the essence of basic tools of controlling as well as the scope of their use.
- C4 Shaping and developing the ability of evaluation the achievements of the organization in conjunction of the implementation of controlling.
- C5 Shaping and developing the ability of evaluation and improvement of existing or designing new functional, organizational and instrumental solutions of controlling in chosen organization.
- C6 Shaping the competences of planning, initiating and implementing the changes in the organization.
- C7 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

## SUBJECT LEARNING OUTCOMES

# relating to knowledge:

- PEU\_W01 Has a knowledge abort the essence of controlling. Understands the importance of restructuring processes related to the implementation of controlling in the organization.
- PEU\_W02 Knows the components and functions of controlling. Has a knowledge about the controlling concepts.
- PEU\_W03 Knows the organizational solutions of controlling, including the solutions relating to the controllers and responsibility centers . Knows the factors influencing the formation of organizational solutions of controlling.
- PEU\_W04 Has knowledge about the tools of controlling, including the controlling profit and loss account, budgeting, information and reporting system, methods of measurement and evaluation of organization performance.

#### relating to skills:

- PEU\_U01 Can evaluate the organization performance relating to the implementation of controlling.
- PEU\_U02 Can evaluate and improve the existing or design the new solutions of controlling relating to the concept of controlling, controllers (including them responsibilities, rights and liabilities) and responsibility centers.
- PEU\_U03 Can evaluate and improve the existing or design the new solutions of controlling relating to the chosen tools of controlling.

# relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

	PROGRAMME CONTENT				
Lectures		Number of hours			
Lec 1	Introduction, overview of the lecture.	1			
Lec 2	The essence and the features of controlling. Concepts of controlling.	2			
Lec 3	Components and functions of controlling.	1			
Lec 3	Requirements for controlling implementation and functioning. Factors influencing the shape of solutions of controlling.	1			
Lec 4	Organization of controlling. Defining the controlling responsibility centers.	2			
Lec 5	Profit and loss account in controlling.	2			
Lec 6	Budgeting in controlling.	2			
Lec 7	Information and reporting system in controlling.	2			
Lec 8	Summary (controlling developement trends). Colloquium.	2			
	Total hours	15			
Project		Number of hours			
Proj 1	Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams. Distribution of the survey questionnaires and discussion on it. Detailed explanation of the task 1: the method of the general characteristics of the organization, including the method of presentation of basic information about the organization, its organizational structure, human potential, and identification of its environment.	2			

	TEACHING TOOLS USED	
	Total hours	15
Proj 7	Summary of project. Final assessment.	1
Proj 6-7	Presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
Proj 5	Explanation of the presentation of the project. The consultation of the task 4: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 4	Detailed explanation of the task 4: formation (b) or improvement (a) instrumental solutions of controlling for the chosen organization (including solutions relating to Profit and loss account in controlling, budgeting, information and reporting system in controlling and methods of measurement and evaluation of organization performance). The consultation of the task 3: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 3	Detailed explanation of the task 3: formation (b) or improvement (a) organizational solutions of controlling for the chosen organization (including solutions relating to the controlling concept, its organization and responsibility centers). The consultation of the task 2: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 2	Detailed explanation of the task 2: in the diagnosis of existing solutions of controlling in analyzed organization (for two situations: a) when controlling is implemented in the organization, and b) if controlling solutions are not implemented in the organization). Declaration of the chosen object. Consultation of the task 1: work in project teams - consulting the substantive issues, evaluation of student progress.	2

- N1. Traditional lecture with multimedia presentations
- N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation
  N6. A written report an analysis of the case study

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04	Colloquium.
F2	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Project of controlling solutions (written report).
F3	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Multimedia presentations relating to controlling solutions prepared by students
F4	PEU_U01, PEU_U02	Activity on the project. Participation in the discussion.

	PEU_U03, PEU_K01	
	PEU_K02, PEU_K03	
P(lecture)=F1		

P(project)=0.7\*F2+0.2\*F3+0.1\*F4

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- 1. Marciniak S., Controlling. Teoria, zastosowania, Difin, Warszawa 2008.
- Vollmuth H. J., Controlling. Planowanie, kontrola, kierowanie, Agencja Wydawnicza "Placet", Warszawa 2000.
- Nowosielski S. Centra kosztów i centra zysku w przedsiębiorstwie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2001.
- Goliszewski J., Controlling. Koncepcja, zastosowania, wdrożenie, Oficyna Wolters Kluwer business, Warszawa 2015.
- 5. Kuc B.R., Kontroling dla menedżerów, wyd. Helion, Gliwice 2011.
- Bieńkowska A., Kształtowanie rozwiązań i wzorce controllingu w organizacji, Oficyna Wydawnicza PWr, Wrocław 2015.

### SECONDARY LITERATURE:

- 1. Controlling w działalności przedsiębiorstwa, pod red. E. Nowaka, PWE, Warszawa 2004.
- 2. Sierpińska M., Niedbała B. Controlling operacyjny w przedsiębiorstwie, PWN, Warszawa 2003.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, <u>agnieszka.bienkowska@pwr.wroc.pl</u> in cooperation:

Anna Zabłocka-Kluczka, <u>anna.zablocka-kluczka@pwr.wroc.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Fizyka Środowiska Pracy II Name of subject in English: Work Environment Physics II

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0029W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠				

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic mathematical and statistical skills (verified by maturity exam or higher).

A course in physics (or equivalent) completed at 1<sup>st</sup> level of studies.

#### SUBJECT OBJECTIVES

- C1: Acquisition of specialist knowledge of the physical factors of the work environment affecting the employee, necessary in processes of manufacturing and human resource management.
- C1.1: Gaining knowledge of the physical aspects of the work environment: the reasons for the impact of physical factors on the employee, how they interact, potential psychophysical effects and ways to minimize their negative impact.
- C1.2: Acquiring knowledge about the ergonomic optimization of working conditions using chosen methods and tools for measuring, assessment and design the physical work environment, taking into account the physical, sensory and mental capabilities and limitations of the employee.

#### SUBJECT LEARNING OUTCOMES

In the field of knowledge:

PEU\_W01: student knows the individual physical factors of the work environment; knows for what reasons (physical, anatomical, physiological, psychological) and how

they affect people in the work process.

PEU\_W02: student knows the chosen methods and tools for measuring and assessing these factors, as well as for designing and optimizing the physical work environment in accordance with an ergonomic approach.

	PROGRAM CONTENT				
	Lectures	Number of hours			
Lec 1	Introduction. Physical work environment as part of the human-machine- environment system. Review of physical factors affecting man in the work process. An ergonomic approach in the design and assessment of the working environment.	2			
Lec 2	Microclimate. Thermodynamics of the human body. Effects of thermal homeostasis disorder. Thermoregulatory mechanisms of physical and biochemical nature. Thermal insulation parameters of clothing as a barrier between man and thermal environment. Microclimate evaluation methods.	2			
Lec 3	Lighting. Structure of the eye's optical path. Signal processing by the neural system. Characteristics of perception of brightness, color and geometric patterns. Requirements related to ensuring appropriate conditions for visual work. The use of color models in the design of the visual environment.	2			
Lec 4	Noise. Hearing structure and its influence on hearing ability. Perception of pitch and loudness of sound as examples of phenomena subject to Weber-Fechner and Stevens laws. Noise as a harmful factor and stressor; physiological and psychological effects of being in noise. Organizational and technical measures to minimize exposure to noise in the workplace.	2			
Lec 5	Spatial relations between a man and the workplace. Impact of mismatch of the position to the anthropometric features of the employee on the enforcement of body posture in biomechanical terms. Location of signaling and control devices. Application of Fitts law in human-machine interface design.	2			
Lec 6	Methodology of researching the impact of the physical work environment on humans. 1. Psychophysical approach in measuring the subjective perception of physically measurable stimuli. The use of questionnaire methods and AHP approach in research and measurement of a subjective nature.	2			
Lec 7	Methodology of researching the impact of the working environment on humans. 2. Designing a factor experiment. Application of statistical methods in data analysis.	2			
Lec 8	Final test	1			
	Total hours	15			

# N1. Lecture with slides and multimedia materials

- N2. Consultations
- N3. Own student work independent literature studies and preparation for the final test

· E	Learning outcomes number	Way of evaluating learning outcomes achievement
,	PEU_W01	Written final test
	PEU_W02	
С		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [2] Halliday D., Resnick R., Walker J., Podstawy fizyki, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [3] Hecht E., Optyka, Wydawnictwo Naukowe PWN, Warszawa 2012
- [4] Jaroszyk F. (red.), Biofizyka, Wydawnictwo Lekarskie PZWL, Warszawa 2014
- [5] Jóźwiak J., Podgórski J., Statystyka od podstaw, Polskie Wydawnictwo Ekonomiczne, Warszawa 2012
- [6] Koradecka J. (red.), Bezpieczeństwo pracy i ergonomia, t. 1 i 2, Centralny Instytut Ochrony Pracy, Warszawa 1999
- [7] Materiały dla studentów na stronie Laboratorium Ergonomii Wydziału Informatyki i Zarządzania PWr, http://ergonomia.ioz.pwr.edu.pl/
- [8] Ozimek E., Dźwięk i jego percepcja. Aspekty fizyczne i psychoakustyczne, Wydawnictwo Naukowe PWN, Warszawa 2002
- [9] Proctor R.W., Van Zandt T., Human factors in simple and complex systems. Second edition, CRC Press, 2008
- [10] Taylor J.R., Mechanika klasyczna, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
- [11] Traczyk W.Z., Trzebski A. (red.), Fizjologia człowieka z elementami fizjologii stosowanej i klinicznej, Wydawnictwo Lekarskie PZWL, Warszawa 2015
- [12] Wykowska M., Ergonomia jako nauka stosowana, Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2009

### SECONDARY LITERATURE:

- [1] Alton Everest F., Pohlmann K.C., Podręcznik akustyki, Wydawnictwo Sonia Draga, Katowice 2013
- [2] Bell P.A., Greene T.C., Fisher J.D., Baum A., Psychologia środowiskowa, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2004
- [3] Brzeziński J., Metodologia badań naukowych i diagnostycznych [w:] Psychologia. Podręcznik akademicki, t. 1: Podstawy psychologii, Strelau J. (red.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000
- [4] Internetowy Podręcznik Statystyki, StatSoft, http://www.statsoft.pl/textbook/
- [5] Jorasz U., Wykłady z psychoakustyki, Wydawnictwo Naukowe UAM, Poznań 1998
- [6] Kabza Z., Kostyrko K., Metrologia mikroklimatu pomieszczenia i środowiskowych wielkości fizycznych. cz. 1 i 2, Oficyna Wydawnicza Politechniki Opolskiej, Opole 2003/2004
- [7] Karwowski W. (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis, 2001
- [8] Malinowski A., Bożiłow W., Podstawy antropometrii. Metody, techniki, normy, Wydawnictwo Naukowe PWN, Warszawa 1997
- [9] Młodkowski J., Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN, Warszawa 1998
- [10] Rejmer K., Ciepło zimno czyli termodynamika fenomenologiczna, Wydawnictwo Sorus, Poznań 2013
- [11] Śliwowski L., Mikroklimat wnętrz i komfort cieplny ludzi w pomieszczeniach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2000

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Jach, katarzyna.jach@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Innowacyjne metody zarządzania Name of subject in English: Innovative management methods

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0112W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_, .				

\*delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basics of management
- 2. Concepts of management

### SUBJECT OBJECTIVES

- C1. Innovative methods used in the management
- C2. Effectiveness of the organization

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01- has a basic knowledge of the innovative methods used in the management

PEU\_W02 - can identify the basic problems of management

relating to social competences:

PEU\_K01 - is aware of the need to develop knowledge and skills in the organization and management science

PEU\_K02 - is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations

	Lectures	Number of hours
Lec 1	Introduction to innovative management methods	2
Lec 2	Innovation management in the company	2
Lec 3	Innovative methods of managing the process of innovation - Open Innovation and Network forms of innovation	2
Lec 4	Innovative management practices at the normative level - managing core values	2
Lec 5	Innovative management practices at the normative level - managing organizational culture	2
Lec 6	Modern approach to strategic management company	2
Lec 7	Innovative methods of management in supporting strategic planning - creating new markets	2
Lec 8	Innovative methods of management supporting strategic planning - creating new business models	2
Lec 9	Innovative methods of management supporting strategic planning - obtaining and maintaining competitive advantage	2
Lec 10	Innovative methods of management support personnel management - conflict management	2
Lec 11	Innovative methods of management support personnel management - Diversity Management	2
Lec 12	Innovative methods of motivating employees to assist management - Manage relationships with employees	2
Lec 13	Innovative methods of motivating employees to assist management - Creating innovative work environment	2
Lec 14	Innovative methods of management tools for the management – Management by responsibility	2
Lec 15	Summary and final test	2
	Total hours	30

- N1. Traditionallecture with multimedia presentations N2. Questions to students during lecture N3. Discussion ofselected issues

- N4. Self-study: classes preparation and final assessment preparation

\	Learning outcomes number	Way of evaluating learning outcomes achievement
end)		
P	PEU_W01	Exam
	PEU_W02	
	PEU_K01	
	PEU_K02	

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Błaszczyk W., Metody organizacji i zarządzania, Wydawnictwo Naukowe PWN, Warszawa 2005.
- [2] Brilman J., Nowoczesne koncepcje i metody zarządzania, PWE, Warszawa 2002
- [3] Brzozowski M., Kopczyński T., Metody zarządzania, Wydawnictwo UE w Poznaniu, Poznań 2009.
- [4] Czekaj J., Metody organizacji i zarządzania, Wydawnictwo AE w Krakowie, Kraków 2007.
- [5] Hopej M., Struktury organizacyjne, Ossolineum, Wrocław Warszawa Kraków 2004.

#### SECONDARY LITERATURE:

- [1] Stachowicz-Stanusch A., Potęga wartości, Onepress, Gliwice 2007.
- [2] Obłój K., Tworzywo skutecznych strategii : na styku starych i nowych reguł konkurencji, PWE, Warszawa 2002.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Joanna Zimmer, Joanna.zimmer@pwr.edu.pl

\*delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Instytucjonalne i ekonomiczne instrumenty wsparcia

przedsiębiorstwa

Name of subject in English: Institutional and economic tools to support enterprise

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0099

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade*	crediting with grade*			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7	0.7			

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about:

- microeconomics.
- macroeconomics,
- the EU institutions,
- business finances.

### **SUBJECT OBJECTIVES**

- C1 Broadening Economic Schools knowledge (regional development theories) as well as instruments supporting entrepreneurship and regional development.
- C2. Teaching students about chosen legal terms, institutions and organizational—and—structural forms in the national level and in some integration groups to supporting the development of entrepreneurship.
- C3 Teaching students about chosen regulations and norms of the institutional and financial support as public aid in Poland and the EU.
- C4 Teaching skills to find proper information about the institutional and financial support for enterprise as well as proper regulations related to it.

C5 Teaching skills to interpret studied legal regulations connected with the institutional and financial support and to calculate potential effects related to the implementation of the abovementioned support instruments in company.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

A student should:

PEU\_W01 know about the chosen economic schools and their proposal of instruments of economic interventionism.

PEU\_W02 have extended business policy knowledge supporting development of enterprise and innovativeness in economy and company; know instruments used in the institutional and financial support,

PEU\_W03 know evolution directions of supporting instruments on the example of Poland and the European Union.

PEU\_W04 know effects of the institutional and financial support for economy and company.

. . .

relating to skills:

A student should:

PEU\_U01 understand and be able to use theoretical knowledge about the institutional and financial support instruments to select proper sources of support for analyzed investment project,

PEU\_U02 be able to find and to interpret information related to possibilities of receiving the institutional and financial support for company,

PEU\_U03 be able to point out potential effects of using the institutional and financial support for enterprise and economy.

. . .

relating to social competences:

A student should:

PEU\_K01 understand necessity of independent and continuous process of broadening their knowledge about the institutional and financial support; be ready to seek the knowledge and to study it individually.

PEU K02 be able to foresight results of taken decisions.

PEU\_K03 be prepared to initiate changes in an enterprise in terms of possibilities to use additional support as well as to plane and to introduce these changes.

PEU\_K04 be able to present and justify their opinions by using correct interpretation of known regulations addressed to economy policy.

#### PROGRAM CONTENT

	Innovativeness and entrepreneurship as the aims of cohesion policy.  Review of basic strategy documents for Poland and the EU and development of entrepreneurship.  Institutional support for domestic companies and those in the EU: aims, forms of support, planned results. Characteristics of main institutions.  Structural-and-organizational forms of support for company and entrepreneurship – cooperation networks.		
Lec 1		2	
Lec 2		2	
Lec 3	1 1	2	
Lec 4		1	
Lec 5	State aid: forms, scope, rules, chosen procedures of receiving support.	2	
Lec 6	Economic and financial support as source of capital for an enterprise.  Procedures of gaining as well as legal and economic-and-financial effects for company.	3	

Lec. 7	Kinds and forms of financial support from European sources (funds).	3
Lec. 8	Written test	1
	Total hours	15
	Laboratory	Number of hours
Cl 1	Economic barriers to development of enterprise and direct and indirect instruments of support for company. Their economic-and-financial results for business – papers, case study, discussion about problems.	4
C1 2	Participation of companies in cooperation networks. Advantages and threats for an enterprise. Structural-and-organizational models - papers, case study, discussion about problems.	2
C1 3	Direct forms of financial supports addressed to companies: types, range of implementation, financial and ownership effects. Procedures and mechanisms of acquisition of resources - papers, case study, discussion about problems.	4
Cl 4	Sources of supporting the innovation and competitiveness in an enterprise.  Procedures and rules of support – papers, case study, discussion about problems.	3
Cl. 5	Direct and indirect forms of the institutional and financial support to improve qualifications of workers and to make labour market more flexible. Procedures and rules of support – papers, case study, discussion about problems	2
	Total hours	15

### TEACHING TOOLS USED

### Lectures

- N1. Information lecture
- N2. Multimedial presentation
- N3. Problem lecture

### Classes

- N4. Doing exercises and solving problems (*case study*)
- N5. Discussion
- N6. Presentations prepared by students
- N7. Written homework
- N8. Self-preparation to the classes

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01÷PEU_U03 PEU_K01, PEU_K02 PEU_K04	Activeness and self-work during classes. Homeworks.
F2	PEU_U01, PEU_U03, PEU_K01÷PEU_K04	Marks related to written paper
F3	PEU_W01÷PEU_W04, PEU_U01÷PEU_U03	Marks related to presentation addressed to chosen problems during classes.
F4	PEU_W01÷PEU_W04	Written test
P (lecture) = F4 P (classes) = 0,2*F1	+0,3*F2+0,5*F3	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Fundusze UE 2014-2020. Nowa perspektywa nowe możliwości, pr. zb. pod red. M. Gwizdy, M. Kosewskiej-Kwaśny, Sz., Żółcińskiego, Wyd. C.H. Beck Wydawnictwo Polska, Warszwa 2014.
- [2] Kasprzak R., Fundusze unijne. Szansa na rozwój małych i średnich przedsiębiorstw. Budżet na lata 2014-2020. Wyd Helion, Gliwice 2016.
- [3] Korenik St., Zakrzewska-Półtorak A., Teorie rozwoju regionalnego ujęcie dynamiczne, Wyd. UE we Wrocławiu, Wrocław 2011.
- [4] Nowakowska A., Regionalny wymiar procesów innowacji, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2011.

#### SECONDARY LITERATURE:

- [5] Jasiński A.H., *Innowacyjność w gospodarce Polski. Modele, bariery, instrumenty wsparcia*, Wyd. Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2014.
- [6] KarwatowiczG., Sebzda-Załuska J., Realizacja projektów infrastrukturalnych w ramach perspektywy UE 2014-2020, Wyd. PRESSCOM, 2016.
- [7] Lech M., Jak prawidłowo rozliczyć projekt realizowany w ramach Funduszy Europejskich 2014-2020, Wyd. Ośrodek Doradztwa i Doskonalenia Kard, 2016.
- [8] Markowska M., Dynamiczna taksonomia innowacyjności regionów, Wyd. UE we Wrocławiu, Wrocław 2012.
- [9] Aktualne: dokumenty strategiczne, akty prawne i podręczniki beneficjenta.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, <u>edyta.ropuszynska-surma@pwr.wroc.pl</u>

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Internacjonalizacja działalności przedsiębiorstwa Name of subject in English: Internationalization of Company Activities

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0097

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,٠	0,7			

<sup>\*</sup>delete as applicable

#### PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student knows basic definitions, economic laws and relations in microeconomics and macroeconomics. Knows the basic institutions, their objectives and functions in national economy. Knows economic and legal regulations in national economy, European union economy and global economy.
- 2. Student understands basic laws which regulate creating and functioning of economic organizations. Knows and understands basic concepts and rules for protection of industrial property and copyright.

### **SUBJECT OBJECTIVES**

- C1- presentation of internationalization phenomenon, internationalization theory, strategy, the forms of internationalization, methods of evaluation in relation to SMEs.
- C2 analysis of enterprises functioning on foreign markets in such areas as competitiveness, contracts and transactions, brand management, quality policy.
- C3 presentation of forms of settlement of foreign transactions, securing the transactions, business fees, types of risks related to this type of activity.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 Has knowledge of internationalization of small and medium entrepreneurships.

PEU\_W02 Knows the principles of functioning company on the international market and understands the nature of foreign trade.

relating to skills:

- PEU\_U01 Able to assess legal and market conditions and able to prepare for conducting commercial transaction.
- PEU\_U02 Able to select the right form of business activity regarding to economic and legal environmental conditions.
- PEU\_U03 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). (K2\_ZARZ\_U18)

relating to social competences:

- PEU\_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. (K2\_ZARZ\_K01).
- PEU\_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. (K2\_ZARZ\_K02).

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Essence and role small and medium entrepreneurships in national economy, barriers of development and ways of supporting SMEs in European Union	2
Lec 2	Basic terms refer to internationalization of business activity, internationalization theory, internationalization strategy, evaluation of internationalization and the forms of internationalization of SMEs	2
Lec 3	International competitiveness of SMEs' sector, presence of Polish enterprises on the foreign markets, choosing the best market, choosing potential partners.	2
Lec 4	The preparation process and course of foreign trade transactions.  The definition of contract and his role in foreign trade transactions.	2
Lec 5	The brand management by SMEs on foreign markets. The quality policy in SMEs, quality requirements and access to foreign markets.	2
Lec 6	Settlement of foreign transactions: payment instruments, payment security features, custom duties on trade in goods, VAT and excise duty.	2
Lec 7	Forms of supporting exporters in SMEs' sector, with special emphasis on non-financial forms. Risks and insurance of goods in international trade.	2
Lec 8	Final test	1
	Total hours	15
	Classes	Number of hours
Cl 1	Analysis of economics problems related to internationalization of SMEs and transactions in international trade – problematic discussion	6
Cl 2	Papers prepared by students - writing form and oral presentation of the papers (multimedia presentation)	8
C1 3	Discussion summarizing analysed case studies	1
	Total hours	15

TEACHING TOOLS USED

### Lecture:

N1 – information lecture,

N2 – multimedia presentation,

N3 – problematic lecture.

Class:

N4 – analysis of selected problems, problematic discussion,

N5 - papers – oral presentation (eg. using Powerpoint), and writing form

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W1, PEU_W2	final test
F1	PEU_U1, PEU_U2, PEU_U3	activity during classes, taking part in problematic discussion
F2	PEU_U1, PEU_U2, PEU_U3	writing form of the paper
F3	PEU_U1, PEU_U2, PEU_U3	oral presentation of the paper

Lecture: P1

Class: P2 = 0.2\*F1 + 0.4\*F2 + 0.4\*F3

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Bernaś B. (red.) Międzynarodowe transakcje ekonomiczne, DIFIN 2002.
- [2] Białecki K., Operacje handlu zagranicznego, PWE, Warszawa 2002.
- [3] Breza M., Miedzynarodowe transakcje gospodarcze, wyd. WSCIL 2009.
- [4] Misala J., Międzynarodowa konkurencyjność gospodarki narodowej, PWE, Warszawa 2011.
- [5] Rymarczyk J., Handel zagraniczny- organizacja i technika, PWE, Warszawa 2005.
- [6] Stępień B. (red.), Handel zagraniczny. Poradnik dla praktyków, PWE, Warszawa 2007.
- [7] Treder H. (red.), Podstawy handlu zagranicznego, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2005.

#### SECONDARY LITERATURE:

- [1] Baranowska-Prokop E., Transakcje wiązane w handlu międzynarodowym, Difin, Warszawa 2003.
- [2] Bednarczyk T. H., Instrumenty wspierania eksportu. Kredyty i ubezpieczenia, Wyd. Naukowe PWN, Warszawa 2000,
- [3] Bednarz J., Gostomski E, Działalność małych i średnich przedsiębiorstw na rynkach zagranicznych, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2009
- [4] Białecki K. P., Januszkiewicz W., Oręziak L., Leksykon handlu zagranicznego, PWE, Warszawa 2007.
- [5] Białecki K. P., Kaczmarek T. T., Eksportowa działalność małych i średnich przedsiębiorstw. Od przygotowania do realizacji transakcji eksportowej, Difin, Warszawa 2008.
- [6] Blajer A., Międzynarodowe reguły handlowe. Zasady i praktyka stosowania. Incoterms 2000, ODDK, Gdańsk 2000.
- [7] Gostomski E., Handel wiązany w gospodarce światowej, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2004.
- [8] Jeliński B., Polityka współpracy gospodarczej z zagranica, Wyd. Uniwersytetu Gdańskiego, Gdańsk 2009,
- [9] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Wydawnicza Branta, Bydgoszcz –

- Warszawa 2005.
- [10] Kaczmarek T. T., Zarzycki M., Poradnik eksportera. Generalne zasady eksportu, specyficzne regulacje obowiązujące w Unii Europejskiej, Oficyna Wydawnicza Branta, Bydgoszcz Warszawa 2005.
- [11] Kozioł W. (red.), Handel zagraniczny. Operacje, rozliczenia, regulacje, Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego, Warszawa 2004.
- [12] Rynarzewski T., Strategiczna polityka handlu międzynarodowego, PWE, Warszawa 2007.
- [13] Stępień B. (red.), Transakcje handlu zagranicznego, PWE, Warszawa 2004.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Magdalena Węglarz, magdalena.weglarz@pwr.edu.pl

\*delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Komunikacja w organizacji Name of subject in English: Organizational communication

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0101

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1 Familiarizing students with the basic issues related to communication in the organization
- C2 Providing students with tools to assess the effectiveness of communication in the organization
- C3. Creating the opportunity to solve problems and group work together

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Student knows the basic terms and elements related to communication in the organization
- PEU\_W02 Student knows the tools used to identify and evaluate communication in the organization

relating to skills:

- PEU\_U01 Student is able to construct tools for identifying and diagnosing the state of communication in the organization
- PE<u>U\_U02</u> Student is able to propose changes in communication based on a diagnosis of its condition

relating to social competences:

PEU\_K01 Student is able to set priorities in own work and in cooperation with others

PEU\_K02 Student is able to cooperate and work in a group

PEU\_K03 Student demonstrates courage in communicating and defending one's views. He is prepared to convince and negotiate in the name of achieving common goals

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to the subject. Course information and organizational matters	1
Lec 2	Interpersonal and group communication	2
Lec 3	Communication in the organization and its culture	2
Lec 4	Communication behavior styles and management styles	2
Lec 5	Internal communication - tools, goals, barriers, methods of testing internal communication	2
Lec 6	Organizational external communication and crisis communication.	2
Lec 7	Communication practice; organization of meetings, meetings and conferences	2
Lec 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction, organizational matters	1
Sem 2	Group communication, communication within the organization	2
Sem 3	Leaders and their styles of action and communication	2
Sem 4	Communication in crisis situations. Image crises	2
Sem 5	Auditing tools; interview, observation, content analysis	2
Sem 6	Audit tools: questionnaire surveys - survey, structured interview	2
Sem 7	Presentation and analysis of student reports	2
Sem 8	Presentation and analysis of student reports	2
	Total hours	15
	TEACHING TOOLS USED	

#### TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works
- N6. Presentation of reports prepared by students

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester end)		
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback

F2 Works prepared in groups PEU_W01- PEU_W02 PEU_U01 PEU K01-PEK K02	Oral feedback. Work evaluation
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C Report on students' own analysis regarding internal or external communication of the organization; knowledge test

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- 1. Cornelissen J., (2012) *Komunikacja korporacyjna. Przewodnik po teorii i praktyce*, Warszawa: Wolters, Kluwer
- 2. Hamlin, S.,(2008) Jak mówić, żeby nas słuchali Poznań: Rebis
- 3. Brzezińska, E., Paszkowska-Rogacz, A. (2009) Człowiek w firmie Warszawa: Difin SA

### SECONDARY LITERATURE:

- 1. Olędzki, J., Tworzydło, D.(ed) *Leksykon Public Relations* Rzeszów: Wydawnictwo Newsline Sp.& Bonus Liber Sp. z o. o.
- 2. Stępowski R. (2016) Komunikacja marketingowa 2030. Technologiczna rewolucja i mentalna ewolucj
- 3. Decker, B. (2010) Wystąpienia publiczne. Trening dla menedżerów. polityków i ekspertów PR

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Koncepcje zarządzania Name of subject in English: Management concepts Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0030

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			60	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			2	1
including number of ECTS points for practical (P) classes				2	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### 1. Principles of management

#### **SUBJECT OBJECTIVES**

The acquisition of basic knowledge, taking into account aspects of application, about:

- C1. schools and approaches in the organization and management theory,
- C2. methods used in the management,
- C3. management concepts,
- C4. effectiveness of the organization.

The acquisition of basic skills about:

- C5. identification of management problems and issues in the organization,
- C6. formulation and matching solutions for the management and substantive issues in the organization,
- C7. analysis and evaluation of selected characteristics of the organization.

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

- PEU\_W01 has a basic knowledge of schools and approaches in organization and management theory
- PEU\_W02 has extended knowledge of the methods used in the management
- PEU\_W03 has expanded the knowledge of management concepts
- PEU W04 can identify the basic problems of management
- PEU\_W05 has a basic understanding of the concept of organizational efficiency

#### relating to skills:

- PEU\_U01 at a basic level can choose, justify and apply the methods and techniques to identify, analyze and solve complex management problems and issues in the organization
- PEU\_U02 at a basic level can formulate solutions to complex management problems and issues in the organization
- PEU\_U03 at a basic level can analyze and evaluate the objectives, features and elements of the organization
- PEU\_U04 is able to identify and analyze common problems of management

### relating to social competences:

- PEU\_K01 is aware of the need to develop knowledge and skills in the organization and management science
- PEU\_K02 is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations
- PEU\_K03 is prepared to communicate, persuade and defend his views

#### PROGRAM CONTENT Number of Lectures hours The idea of management concepts and methods. The role and shortcomings 2 Lec 1 of to ols. The practical suitability of management concepts and methods. The scientific management: its precursors, scientific organization of work, 2 Lec 2 typical management methods. Administrative management theory school: Henri Fayol and classical 2 Lec 3 organization theory, theory of bureaucracy - the concept of the ideal type of organization. Methods of administrative management theory school. Human relations. Management methods used in human relations approach. Lec 4 2 System theory: The concept of the system, the hierarchy of systems. Lec 5 Systemic point of view. The organization as an open system. Management methods used in a systems approach. Contingency theory. Management methods used in the contingency theory. 2 Lec 6 2 The new wave in management. Management methods used in the new Lec 7 wave.

Lec 8	Lean management	2
Lec 9	Business Process Reengineering	2
Lec 10	Time Based Management	2
Lec 11	Benchmarking	2
Lec 12	Outsourcing	2
Lec 13	Organizational learning	2
Lec 14	Network organization	2
Lec 15	Virtual organization	2
	Total hours	30
	Project	Number of hours
Proj 1	Identification of the method used in the chosen company.	2
Proj 2	Description of theoretical assumptions of the identified method.	2
Proj 3	Description of the identified management method in business practice - goals of the organization.	2
Proj 4	Description of the identified management method in business practice - the structure of the organization.	2
Proj 5	Description of the identified management method in business practice - the social subsystem of the organization.	2
Proj 6	Description of the identified management method in business practice - technology in the organization.	2
Proj 7	Improvement proposals	2
Proj 8	Presentation	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Scientific management	2
Sem 2	Administrative approach, human relations approach	2
Sem 3	System approach	2
Sem 4	A situational approach	2
Sem 5	New Wave in management	2
Sem 6	Lean management	2
Sem 7	Process approach	2
Sem 8	Time based management	1
	Total hours	15

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-analysis and evaluation of selected aspects of the organization
- N5. Self-study: classes preparation and final assessment preparation
- N6. Project prepared by students

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P		Assessment of developed solutions regarding the analysis and evaluation of the chosen organization
Р	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_W05	Examination

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Błaszczyk W., Metody organizacji i zarządzania, Wydawnictwo Naukowe PWN, Warszawa 2005
- [2] Brzozowski M., Kopczyński T., Metody zarządzania, Wydawnictwo UE w Poznaniu, Poznań 2009.
- [3] Czekaj J., Metody organizacji i zarządzania, Wydawnictwo AE w Krakowie, Kraków 2007.
- [4] Hopej M., Struktury organizacyjne, Ossolineum, Wrocław Warszawa Kraków 2004.
- [5] Zimniewicz K., Współczesne koncepcje i metody zarządzania, PWE, Warszawa 1999.

### **SECONDARY LITERATURE:**

- [1] Koźmiński A.K., Piotrowski W. (red.), Zarządzanie. Teoria i praktyka, Wydawnictwo Naukowe PWN, Warszawa 2006
- [2] Brilman J., Nowoczesne koncepcje i metody zarządzania, PWE, Warszawa 2002.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, robert.kaminski@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Międzynarodowe aspekty zarządzania przedsiębiorstwem

Name of subject in English: International management

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0044

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	Crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				

\*delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basics of management

#### **SUBJECT OBJECTIVES**

Acquisition of basic knowledge of:

- C1. international management,
- C2. international strategic management,
- C3. structures of multinational companies,
- C4. intercultural management.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – has a basic knowledge of international management

PEU\_W02 – has a basic knowledge of international business strategy

PEU\_W03 – has a basic knowledge of the organizational structures in multinational companies

PEU\_W04 – has a basic knowledge of intercultural management

relating to skills:

relating to social competences:

PEU\_K01 – is aware of the need to develop knowledge and skills in the organization and management science

PEU\_K02 – is aware that the manager's work needs to identify, analyze and resolve problems in organizations

	PROGRAMME CONTENT					
	Lectures	Number of hours				
Lec 1	Definition of international management	2				
Lec 2	Internationalization, globalization and localization	2				
Lec 3	Strategic aspects of international management	2				
Lec 4	Strategic aspects of international management	2				
Lec 5	The internationalization and organizational structure	2				
Lec 6	Intercultural management	2				
Lec 7	Cultural differences and motivation	2				
Lec 8	Cultural differences and leadership	1				
	Total hours	15				

### TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-study: classes preparation and final assessment preparation

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_K01	Credit by examination
	PEU_K02	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Duliniec E., Marketing międzynarodowy, PWE, Warszawa 2004.
- [2] Koźmiński A.K., Zarządzanie międzynarodowe, PWE, Warszawa 1999.
- [3] Nowakowski M., *Biznes międzynarodowy. Od integracji do globalizacji*, Wydawnictwo SGH, Warszawa 2005.
- [4] Rozkwitalska M., Zarządzanie międzynarodowe, Difin, Warszawa 2007.
- [5] Rymarczyk J., Internacjonalizacja i globalizacja przedsiębiorstwa, PWE, Warszawa 2004.
- [6] Stonehouse G., Hamill J., Campbell D., Purdie T., *Globalizacja*. *Strategia i zarządzanie*, Wydawnictwo Felberg SJA, Warszawa 2001.
- [7] Trompenaars F., Hampden-Turner Ch., Siedem wymiarów kultury, Oficyna Ekonomiczna, Kraków 2002.
- [8] Yip G.S., Strategia globalna. Światowa przewaga konkurencyjna, PWE, Warszawa 1996.

## SECONDARY LITERATURE:

- [1] Garette P., Dussauge P., *Strategie aliansów na rynku*, Poltex, Warszawa 1996.
- [2] Strategor, Zarządzanie firmą. Strategie, Struktury, Decyzje, Tożsamość, PWE, Warszawa 1999.
- [3] Zorska A., Ku globalizacji. Przemiany w korporacjach transnarodowych i w gospodarce światowej, PWN, Warszawa 2000.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, robert.kaminski@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Modelowanie symulacyjne Name of subject in English: Simulation modeling Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0031

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	60		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	2		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

\*delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Modeling in Excel spreadsheet
- 2. Basics of probability and statistics

#### SUBJECT OBJECTIVES

- C1 Acquaintance with basic concepts of stochastic simulation modeling
- C2 Ability to use simulation models to describe the present state and to predict the future performance of the organization.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 The student has the knowledge about the steps of simulation models' building.

PEU\_W02 The student has the specialist knowledge in the field of quantitative and qualitative modeling and forecasting of the states and the processes in the organization.

relating to skills:

PEU\_U01 The student can build and use simulation models to solve the complex managerial problems.

relating to social competences:

PEU\_K01 The student understands the essence of ethics in business

PEU K02 The student can interact and work in collaborative forms

#### **PROGRAM CONTENT** Number of Lectures hours Class rules. Simulation and forecasting: basic definitions Lec 1 Simulation modeling cycle. Simulation and forecasting 2 Lec 2 Discrete event simulation in Arena. Part 1 Lec 3 Discrete event simulation in Arena. Part 2 2 Lec 4 Input data modeling. Random numbers Lec 5 Experiment planning Lec 6 Verification and validation Lec. 7 Lec 8 Final test **15** Total hours Number of Laboratory hours Lab 1 Class rules Lab 2 Discrete event model - introduction Lab 3 Discrete event model – part 1 Discrete event model – part 2 Lab 4 2 Lab 5 Discrete event model – part 3 Lab 6 Introduction to mini project Lab 7 Project defense 2 Lab 8 Grading Total hours 15

#### TEACHING TOOLS USED

N1. Multimedia presentation

N2. Software packages (Arena, Extend, Simio, AnyLogic)

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_K01	Assignment no 1
F2	PEU_U01 PEU_K01	Assignment no 2
F3	PEU_U01 PEU_K01	Assignment no 3
F3	PEU_U01 PEU_K01	Assignment no 4
F3	PEU_K02	Mini project

PEU_K01	
P Final test PEK W01 PED W02	

#### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] **Mielczarek B.,** *Modelowanie symulacyjne w zarządzaniu. Symulacja dyskre*tna. Oficyna Wydawnicza PWr Wrocław 2009
- [2] Kelton W.D., Sadowski R.P., Sturrock D.T., Simulation with Arena, McGraw Hill Higher Education
- [3] Rossetti M.D., Simulation modelling and Arena, John Wiley and Sons, Inc., 2010

### SECONDARY LITERATURE:

- [1] Winston L.W., Microsoft Excel 2019. Analiza i modelowanie danych biznesowych, APN Promise, Warszawa 2019
- [2] Gajda J.B., Prognozowanie i symulacja a decyzje gospodarcze, Wyd. C.H.Beck, Warszawa 2001
- [3] Cieślak M., (red.) *Prognozowanie gospodarcze. Metody i zastosowania*, Wydawnictwo Naukowe PWN, Warszawa 2002.
- [4] Maciąg A., Pietroń R., Kukla S. Prognozowanie i symulacja w przedsiębiorstwie, PWE 2013

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Bożena Mielczarek bozena.mielczarek@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Prawne i ekonomiczne aspekty zarządzania informacją i

wiedzą

Name of subject in English: Legal and economic aspects of information and knowledge

management

Main field of study (if applicable): Management

Specialization (if applicable): ZPP,TIZ

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0095

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. no

#### **SUBJECT OBJECTIVES**

- C1. Gaining basic knowledge of information and knowledge management in the enterprise, as well as raising awareness of the role of intangible assets and their value to the modern organization. Students will learn both the methods and tools for information and knowledge management and intellectual capital transformation processes in the long-term value for the company.
- C2: Understanding the importance of information and knowledge management in enterprises, especially in the legal and economic aspects. Introduction to the methods of acquisition, preservation and sharing of knowledge property rights (IPR) and obtaining funding for knowledge management and evaluation of the effectiveness of their use, as well as knowledge of methods for estimating the value of the intellectual capital of the organization.
- C3:. Understanding the fundamental processes related to the management of information and

knowledge regarding the generation, collection, storage, protection, use and protection of information and knowledge within the organization.

C3: Understanding the basic models and systems of knowledge and information management to support business enterprises.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01 student knows and understands the nature of information and knowledge management in the organization. Understands the concepts of data, information and knowledge, and their character.
- PEU\_W02 student understands the importance and value of information and knowledge for the development of modern enterprises and entire economies and the need to manage these resources.
- PEU\_W03 student knows the basic models and processes for managing knowledge and information, especially in terms of legal and economic. Familiar with the methods of collection, preservation and availability of knowledge property rights (IPR) and raise funds for the management of knowledge and information. He met the valuation method selected intellectual capital of the organization.
- PEU\_W04 student met the management of information and knowledge in support of enterprises.

relating to skills:

PEU\_U01 student is able to analyze the processes of knowledge and information management, especially in terms of legal and economic

relating to social competences:

PEU\_K01 student is aware of the importance of effective management of knowledge and information in the practice of the organization, economy and everyday life

PROGRAMME CONTENT				
	Lectures	Number of hours		
Lec 1	Knowledge as a paradigm of development. The information society and knowledge-based economy, the importance and value of intangible assets for businesses.	2		
Lec 2	Define basic concepts such as data, information and knowledge. Information management and knowledge management.	2		
Lec 3	Conditions of knowledge management and information in the organization. Models, processes and tools of information management and knowledge: the generation and acquisition of information and knowledge, the accumulation of information and knowledge, use and distribution of knowledge.	2		
Lec 4	Knowledge as a chance for the success of the organization's development. Information management systems and knowledge management systems to support business enterprises.	2		
Lec 5	Information and knowledge protection policy in the enterprise - the intellectual capital of the organization, methods of measurement.	2		
Lec 6	Summary - development trends in the management of information and knowledge. Successes and failures in the management of information and knowledge - case studies.	2		
Lec 7	Final test	1		

	Total hours	15
	Classes	Number of hours
Cl 1	The information society and knowledge-based economy, the importance and value of intangible assets for businesses - case studies	2
Cl 2	Information management and knowledge management - discussion, case studies	2
Cl 3	Information management systems in support of business case study analysis	2
Cl 4	Knowledge management systems in support of business case study analysis	2
Cl 5	Organization and policy information and knowledge in the company's case study analysis	2
Cl 6	Intellectual capital of the organization, methods of measurement - discussion, case study	2
Cl 7	Final test	1
	Total hours	15

### TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. The online database of information and knowledge
- N3. Case study

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 -W05 PEU_K01	Test
F2	PEU_W01 -W06	Activity, the presence
F3	PEU_U01 -U03 PEU_K01	Oral presentation
F4	PEU_U01 -U03	Activity, the presence
D1 (I 4 ) 0 7 4 E1 0 (	•	

P1 (**lecture**) = 0.7\*F1 + 0.3P2 (**classess**) = 0.8\*F3 + 0.2\*F4

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. W. Kotarba: Ochrona wiedzy a kapitał intelektualny organizacji. PWE, Warszawa 2006.
- 2. Głuszek E.: Zarządzanie zasobami niematerialnymi przedsiębiorstwa. Wyd. AE Wrocław, Wrocław 2004.
- 3. Probst G., Raub S., Rohmhard K., Zarządzanie Wiedzą w Organizacji. Oficyna ekonomiczna Kraków 2002.
- 4. Perechuda K., Zarządzanie wiedzą w przedsiębiorstwie, PWN 2005.
- 5. M. Świgoń, zarządzanie wiedzą i informacją, Warszawa 2012.

### SECONDARY LITERATURE:

- 1. Kotarba W.: Zarządzanie wiedzą chronioną w przedsiębiorstwie. Instytut Organizacji i Zarządzania w Przemyśle "ORGMASZ". Warszawa 2001.
- 2. K. C. Laudon, J. P. Laudon, Essentials of management information systems, Pearson Education, New Jersey 2005.
- 3. E. Skrzypek, Zarządzanie wiedzą i informacją w organizacjach gospodarczych, Zeszyty Naukowe SGGW, Warszawa 2012.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr Aldona Dereń, aldona.deren@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Prawno-ekonomiczne uwarunkowania działalności

gospodarczej

Name of subject in English: Legal and economic conditions for running a business

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0100

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0.7	0.7			

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge about:
  - microeconomics and macroeconomics,
  - civil law.

#### SUBJECT OBJECTIVES

- C1 Acquisition of knowledge about government's functions and range of regulation as well as state intervention in the selected types of economies and Economic Schools.
- C2 Acquisition of knowledge about state economic policy and integration groups and its influence on legal and economic conditions for running a business.
- C3. Acquisition of knowledge about trends in the contemporary economies and evolution of structure market and their influence on the company functioning and/or business activities.
- C4 Acquisition of skills to be able analyze the legal and economic environment for making selected documents in order to receive co-funds or to justify the aim of a planned investment, taking into account the social and environmental effects.
- C5 Acquisition and fixation of social skills related to the cooperation in the student group in order to solve problems efficiently and to perform the tasks.
- C6 Acquisition of skills of enabling finding and selecting information to solve the task or

problem.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

A student should:

PEU\_W01 know about the Economic Schools in the context of economic policy.

PEU\_W02 have extended knowledge about the economic policy as the element of economic regulations at country, international level - and economic groups and integration groups.

PEU\_W03 know reasons, types, directions and economic-and-law effects of market evolution, market structure and selected institutions in the contemporary economies.

PEU\_W04 explain the influence of global conditions (including the legal and economic ones) on the competitiveness of organization and its efficiency, taking into account the macroeconomic and sectorial policy of State.

. . .

relating to skills:

A student should:

PEU\_U01 be able to define and analyze effects of the economic and legal regulations at national and international levels and their effects for particular organizations, markets and integration groups.

PEU\_U02 be able to analyze legal and economic environment for describing such documents like: business plan, feasibility study, company strategy.

. . .

relating to social competences:

A student should:

PEU\_K01 have the social skills about cooperation in the student group to solve the problems efficiently and to perform the tasks.

PEU\_K02 be able to look for information and analyze it in order to describe a issue or solve a problem.

# PROGRAM CONTENT

PROGRAM CONTENT					
	Lectures	Number of hours			
Lec 1	Introduction to lesson. Requisites for getting a credit.  Types of economies. Government's function in economy according to selected Economic Schools and regulations of the running a business – selected aspects.	3			
Lec 2	<ul> <li>The competition:</li> <li>factors of competitiveness of contemporary economies versus state regulations,</li> <li>market structure,</li> <li>the regulation of competition in the EU.</li> </ul>	3			
Lec 3	Money, monetary policy, exchange rate policy, monetary union, euro in the context of the running a business.	3			
Lec 4	Budget and tax system. Public finances versus conditions of doing business – selected aspects.	2			
Lec 5	Business cycle. Stabilization policy.	2			
Lec 6	Written test.	2			
	Total hours	15			

	Classes	Number of hours
Cl 1	Organizational lesson.	1
C1 2	Types of business activities in Poland and in the EU.	2
Cl 3	Regulations addressed to the competition in Poland and the EU.	2
Cl 4	Business agreements (e.g.: sale, lease, franchising, factoring, employment contract) - selected aspects.	2
Cl. 5	Exchange rates, euro versus conditions for doing business.	2
Cl. 6	Conditions for the business during prosperity and crisis: potential opportunities and threats.	2
Cl 7	Analysis of the legal and economic environment for the use of capital. Structure of the selected documents for receiving capital to do the planned investment.	4
	Total hours	15

# TEACHING TOOLS USED

# Lectures

- N1. Lecture with multimedia presentation
  N2. Exercises using the activating methods: case study, presentations prepared by students in the groups, papers, activities.
- N3. Office hours
- N4 Self-preparation to the classes N5 Mini-project N6. Self-preparation for test

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1=P	PEU_W01 ÷ PEU_W04	Written test
F1	PEU_K01, PEU_K02	Presentation of paper, activities during classes
F2	PEU_W02, PEU_W04, PEU_U01	Paper – written version, activities during classes.
F3	PEU_U02	Mini project
P (lecture) = F1 P (classes) = 0,3*F1+0,35	*F2+0,35*F3	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Acocella N., Zasady polityki gospodarczej, PWN, Warszawa 2002.
- [2] *Makro- i mikroekonomia. Podstawowe problemy współczesności*, Marciniak S. (red.), Wyd. Naukowe PWN, Warszawa 2013.
- [3] Podstawy ekonomii, Milewski R. (red.), PWN, Warszawa 2001 i kolejne wydania.
- [4] Polityka gospodarcza i finanse w teorii i praktyce, pod red. nauk. Paszewickiego A., Szczodrowskiego G., Instytut Wiedzy i innowacji, Warszawa 2011.

# SECONDARY LITERATURE:

- [1] Dolata S., Podstawy wiedzy o polskim systemie podatkowym, Wolters Kluwer, Warszawa 2009.
- [2] Finansowanie działalności przedsiębiorstw, pod red. Stacharska-Targosz J., WSB Poznań, 2005.
- [3] Litwińczuk H., Karwat P. (red.), *Prawo podatkowe przedsiębiorców*, tom 1 i 2, Wolters Kluwer, Warszawa 2008.
- [4] Nawrot W., Globalny kryzys finansowy XXI w. Przyczyny, przebieg, skutki, prognozy, CEDEWU.Pl, Warszawa 2009.
- [5] *Prawo handlowe*, praca zb. pod red. Ogólskiego J., Modrzejewskiej M., LEX a Wolters Kluwer business, Warszawa 2012.
- [6] Przepióra P., Podatek VAT w małych i średnich przedsiębiorstwach. Dyskusja o neutralności i kształcie regulacji podatkowych, Wydawnictwo Politechniki Poznańskiej, Poznań 2009.
- [7] Szymański W., Strategie podatkowe osób prawnych w Unii Europejskiej, C.H. Beck, Warszawa 2009
- [8] Wach K., Skutki akcesji do Unii Europejskiej dla polskich przedsiębiorstw, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2008.
- [9] Wach K., Regionalne otoczenie małych i średnich przedsiębiorstw, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2008.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, edyta.ropuszynska-surma@pwr.wroc.pl

\*delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Projektowanie małego biznesu Name of subject in English: Small bussiness designing

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0081

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge from the field of organizational management, marketing and corporate finance

#### **SUBJECT OBJECTIVES**

**Comment**: in further text the term "small business" is used to describe business undertakings conducted in micro or small enterprises.

- C1: Getting acquainted students with knowledge concerning the process of founding (establishing), developing as well as managing small and micro enterprises and in particular those in form of a sole proprietorship.
- C2: Making students aware of the chances for an entrepreneur, resulting from conducting a small business as well as of the main threats and their sources. Pointing out the possibilities of getting organizational and financial support.
- C 3: Getting acquainted students with knowledge concerning the process of working out "multiple scenario" business plans for a small business.
- C4: Inspiring students to start and run their own entrepreneurial ventures in form of a sole proprietorship. Developing practical skills and ethical behavior concerning the process of registration of a sole proprietorship as well as its development (grow) into other legal and organizational forms.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01: The student explains the term "entrepreneurship" from the point of view of the process approach. He is aware of the essence of small and micro enterprises and he knows the quality and quantity criteria for distinguishing them from other enterprises. He is capable of characterizing the basic features of small and micro enterprises.
- PEU\_W02: The student understands the internal and external conditions including those determined by the global environment for the operation of small and micro enterprises in the economy.
- PEU\_W03: The student has a deepened knowledge on the process of founding small business ventures and in particular those in form of a sole proprietorship.
- PEU\_W04: The student has general knowledge on the operation of small and micro enterprises as well as on chosen aspects of managing these organizations.

# relating to skills:

- PEU\_U01: The student identifies and interprets (explains) the stages of the entrepreneurship process concerning the business venture to be designed.
- PEU\_U02: The student is able to fulfill the formal requirements necessary to register a sole proprietorship (to prepare the required documents as well as to choose the adequate income taxation method and the right way of conducting accountancy).
- PEU\_U03: The student is able to define the purpose of a small business, its aims and the strategy as well as to identify the opportunities and threats (including risk) in the near environment of the enterprise. He is capable of developing and analyzing a "multiple scenario" business plan for a small business.
- PEU\_U04: The student is able to work out assumptions for the organization of business processes and is capable of selecting candidates for a team realizing small business. Moreover he is able to define the requirements concerning competencies and organizational roles for individual team members as well as to create conditions for effective communication in the team.

#### relating to social competences:

PEU\_K01: The student is aware of the need for the development of his own entrepreneurial behavior. He is able to create conditions for building entrepreneurship as well as to overcome the appearing obstacles.

PROGRAM CONTENT			
	Lectures	Number of hours	
Lec 1	The range of the lecture, course completion criteria and the literature.  Entrepreneurship in the process approach (Defining entrepreneurship.  Entrepreneur – his features, role and functions. The essence, attributes and objectives of small and micro enterprises).	2	
Lec 2	Quantity and quality criteria for distinguishing small business. The importance of small business for the economy. Family enterprise.	2	
Lec 3	A sole proprietorship – chosen aspects of establishing (Strategic decisions at the founding stage. Registration obligations. The choice of the adequate income taxation metod. Accountancy. Computer support for small business).		
Lec 4	Other (than a sole proprietorship) legal and organizational forms of conducting small business and the corresponding registration obligations. Profits and limitations of these forms.		
Lec 5	Support system for small business. The sources of and barriers to supporting the	2	

	development of small business. Risk of conducting small and micro enterprises. Limitations in the supply of information for small business.	
Lec 6	Chosen aspects of small business management: strategic management – the strategy of development of small business, preferred management styles, personnel function, the marketing concept of management and the assessment of the profitability of small business (business plan and its elements). Small business in global environment.	
Lec 7	Final test checking students' knowledge	1
Lec 8	Resit test	1
	Total hours	15
	Project	Number of hours
Proj 1	Getting acquainted students with the aim of the project, its course as well as with the assessment criteria for course completion. Discussion of the particular tasks to be accomplished within the project.  Tasks:  To work out a scheme for the process of registration of a sole proprietorship (all the formal requirements necessary to start this kind of business activity must be considered). Final result of this task – filled adequate documents.  To work out a "multiple scenario" business plan for a given time horizon according to the prescribed structure.  To work out an entrepreneurship process scheme for the projected business activity and the interpretation of this scheme.  To work out assumptions for future changes in the initially assumed legal and organizational form of the business as well as in the assumed income taxation method, resulting from the predicted future development of the projected business Formulation - in a developed form - of the assumptions concerning the organization of the business process accomplishment and in particular those (assumptions) which are connected with the selection of candidates for teams, with the competency requirements and organizational roles as well as with the conditions for effective communication in a team.  Presentation of project and project defend.	
Proj 2	Discussion of the way in which the particular parts of the business plan should be accomplished (information sources, methods and techniques supporting the analysis of the alternative business plan versions). Answering students' questions.	
Proj 3	Analysis of the scheme for the process of the formal registration of an economic activity – discussion on the basis of the presentations prepared by some students Discussion of chosen income taxation methods in the context of businesses activities proposed by students.	
Proj 4- 6	Applying for the registration of the projected business activity by students (the necessary element: documents required for the registration of a sole proprietorship). Presentation - by students - of chosen initial versions of a business plan, analysis and discussion.  Work in project teams — consultations concerning the essential elements of the project, assessment of the advancements made by students in projects	e 8 6
Proj 7,8	Presentation of Final Reports documenting the small business projects - discussion and assessment.	4
	Total hours	15

#### TEACHING TOOLS USED

- N1. Knowledge transfer (lecture) with the use of multimedia (teaching person).
- N2. Lecture material for students (synthesis) in electronic form.
- N3. Discussion.
- N4. Written report small business project.
- N5. Presentation of the Final Reports with the use of multimedia (students).
- N6. Student self-studying.
- N7. Planning tool MS Excel

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F - forming (durin semester), P - concluding (at semester end)		Learning outcomumber	mes	Way of evaluating learning outcomes achievement
F1	_	01; PEU_W02; 703; PEU_W04	Final te	est (in written)
Lecture:			00% F1	
F2			Studen discuss	t's activity during the classes – participation in sions
F3		02; PEU_U03; PEU_04	Final R	eport (in written)
F4	_	03; PEU_04; EU_K01	Presen	tation of the Final Report
Project:		P= 0,2	2F1+0,	5F2+0,3F3

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Zarządzanie małym i średnim przedsiębiorstwem, pod red. K. Safina, Wyd. Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2012,
- [2] Markowski W., ABC small business'u, Wyd. MARCUS s.c., Łódź 2014.

# SECONDARY LITERATURE:

Młodzikowska D., Lunden B., Jednoosobowa firma. Jak założyć i samodzielnie prowadzić jednoosobową działalność gospodarczą, Wyd. BL Info Polska Sp. z o.o., Gdańsk 2012.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Zabłocka-Kluczka; Anna.Zablocka-Kluczka@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Psychologia decyzji i ryzyka Name of subject in English: Psychology of decision and risk

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0102

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

#### SUBJECT OBJECTIVES

- C1 Acquisition of knowledge about the psychological mechanisms involved in making decision
- C2 Knowing of situational and personality determinants of decision-making processes.
- C3. Acquiring of knowledge in the scope of psychological approach to risk in decision-
- C4 acquisition of skills identification of cognitive errors and distortions in decision-making and risk perception
- C5 Mastering the skills of identifying manifestations of bounded rationality in decision-making and risk perception making
- C6. Understanding the role of psychological factors and individual differences in decision-making and financial risk

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge

- PEU\_W01 student knows the nature and operation of psychological mechanisms of decision-making.
- PEU\_W02 he has knowledge of situational and personality determinants decision-making processes.
- PEU\_W03 he has knowledge of the psychological approach to risk in decision-making relating to skills:
- PEU\_U01 He has ability to identify manifestations of bounded rationality in decision-making

and risk perception

PEU\_U02 He can be identified cognitive biases and distortions in the process of risk perception and decision-making

# relating to social competence:

PEU\_K01 he can determine the role of psychological factors and individual differences in risk and decision-making

# PROGRAM CONTENT

TROUGHT CONTENT				
	Lectures	Number of hours		
Lec1	Behavioral decision theory. Normative and descriptive models of decision-making and risk	2		
Lec2	Model of bounded rationality in decision-making	2		
Lec3	General dimensions of the decision. Dimensions decisions in the organization	2		
Lec4	Cycles of information processing in the decision making process.  Psychological decision rules	2		
Lec5	The role of heuristic in decision making (sources of biases and inclination in decision-making).	2		
Lec6	The prospect theory in decision making processes	2		
Lec7	Psychological aspects and determinant of risk assessment and decision-making	2		
Lec8	The role of emotions in financial risk-taking	1		
	Total hours	15		

	Seminar	Number of hours
Sem1	Decision-making models - phases. Rational and automatic processes in decision making.	2
Sem2	Cognitive processes in decision-making. Estimating of the subjective probability in decision-making	2
Sem3	Diagnostic heuristics in decision processes Types of cognitive biases and inclination.	2
Sem4	The consequences of prospect theory - biases in risk assessment - The effect of predisposition and the effect of sunk costs	2
Sem5	Rules of integrating alternatives in decision-making	2
Sem6	Quantitative and qualitative dimensions of perceived risk in decision-making	2
Sem7	Individual differences in decision-making and risk perception	2
Sem8	Sources of biases in financial risk estimation	1
	Total hours	15

# **TEACHING TOOLS USED**

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)
- N5 Own work

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming	Learning outcomes	Way of evaluating learning outcomes
(during semester), P –	number	achievement
concluding (at semester		
end)		
P	PEU_W01 - PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P	PEU_W01 – PEU_W03	test
	PEU_U01-PEU_U02	
	PEU_K01	
P=2	·	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Nosal C.S. (2001). Psychologia myślenia i działania menedżera., Wrocław, AKADE
- [2] Kozielecki J. (1997). Psychologiczna teoria decyzji. Warszawa: PWN
- [3] Tyszka, T., Zaleśkiewicz, T. (2001). Racjonalność decyzji. Pewność i ryzyko. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- [4] Tyszka, T. (1999). Pułapki oceniania i podejmowania decyzji. Gdańsk: GWP.
- [5] Sokołowska, J. (2005). Psychologia decyzji ryzykownych. Ocena prawdopodobieństwa i modele wyboru w sytuacji ryzykownej. Podręcznik akademicki. Warszawa, Wydawnictwo Szkoły Wyższej Psychologii Społecznej "Academica".
- [6] Goszczyńska M., Studenski R. (red.) (2006). Psychologia zachowań ryzykownych koncepcje badania praktyka. Wydawnictwo: ŻAK

# SECONDARY LITERATURE:

- [1] Simon H., Podejmowanie decyzji kierowniczych, PWE, Warszawa 1982.
- [2] Tyszka T., Analiza decyzyjna i psychologia decyzji, PWN, Warszawa 1986.
- [3] Zaleśkiewicz, T. (2003). Psychologia inwestora giełdowego. Wprowadzenie do behawioralnych finansów. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- [4] Zaleśkiewicz, T. (2005). Przyjemność czy konieczność. Psychologia spostrzegania i podejmowania ryzyka. Gdańsk: Gdańskie Wydawnictwo Psychologiczne
- [5] Sokołowska, J. (2000). Ryzyko: Wyzwanie czy zagrożenie. Psychologiczne modele oceny i akceptacji ryzyka. Warszawa: Wydawnictwo Instytutu Psychologii PAN.
- [6] Lindsay P.H., Norman D.A. (1984). Procesy przetwarzania informacji u człowieka, Warszawa: PWN

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Psychologia ekonomiczna Name of subject in English: Economic psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0103

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total stude nt workload (CNPS)	30				30
Form of crediting	crediting with g				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that requi re direct participation of lecturers and other academics (BU)					0,7

<sup>\*</sup>niepotrzebne skreślić

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES Psychology of management

# **SUBJECT OBJECTIVES**

- C1. Knowing the psychological mechanisms related to economic decisions
- C2. Gaining knowledge about the specifics and psychological determinants of economic behavior
- C3. Knowing the mechanisms of perception of money and its behavioral consequences
- C4. Understanding the mechanisms of perception of economic activities, economic expectations of ownership and possession, economic welfare and saving
- C5. Mastering knowledge of the psychological basis of risk perception in the economic behavior and financial decisions

# SUBJECT LEARNING OUTCOMES

# Relating to knowledge:

- PEU\_W01 student has a thorough knowledge of the mechanisms and strategies for financial decision making and economic behavior
- PEU\_W02 he understands the difference between normative and behavioral approach to economic behavior.
- PEU\_W03 he recognizes the basic psychological mechanisms that determine economic behavior, such as savings, insurance and investing in the financial markets

# Relating to skills:

- PEU\_U01 he can identify psychological determinants of economic and entrepreneurial behavior
- PEU\_U02 he can identify the source irrational economic and entrepreneurial behavior,
- PEU\_U03 he can diagnose the attitude towards money and its impact on economic behavior

# Relating to social competences:

PEU\_K01 he is aware of cognitive and emotional limitations of market behavior

PROGRAM CONTENT				
	Lectures	Number of hou		
Wy1	Psychology and economics. Normative and descriptive approach to explain economic phenomena. Interest of economic psychology	2		
Wy2	Bounded rationality in making financial decisions. The role of emotions in economic behavior	2		
Wy3	Psychological mechanisms of perception and its regutational consequences	2		
Wy4	Psychological aspects of saving. Mechanisms and motives of the insurance	2		
Wy5	Psychology of investing and entrepreneurship	2		
Wy6	Subjective factors of economic behavior	2		
Wy7	Psychology of gambling and financial risk	2		
Wy8	Economic socialization	1		
	Total hours	15		

	Seminar				
Sem1	Economic behavior from the perspective of economics and psychology.  The subject of interest of economic psychology.				
Sem2	Bounded rationality in making financial decisions.	2			
Sem3	The role of emotions in economic behavior	2			
Sem4	Mechanisms of mental accountingo	2			
Sem5	Attitudes and mechanisms of money perceptions and its regulatory implications	2			
Sem6	Sem6 Psychological aspects of saving Mechanisms and motives of the insurance				
Sem7 Identification of the mechanisms of investment and entrepreneurial behaviors and subjective determinant		2			
Sem8	Sem8 Perception and dimensions of financial risk				
	Total hours	15			

# TEACHING TOOLS USED

- N1. Lecture
- N2. Multimedia presentations
- N3. Practical exercises
- N4. Problem lecture (stimulating questions and answers)

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

		<u> </u>
<b>Evaluation</b> (F – forming (dur	Learning outcomes number	Way of evaluating learning outcomes a
ing semester), P - concluding (		chievement
at semester end)		
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P	PEU_W01 - PEU_W03, PEU_U01 -	test
	PEU_U03, PEU_K01	
P=2		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Brzozowska I.M., Goszczyńska M.(2002). Psychologiczne determinanty skłonności Polaków do oszczędzania. *Czasopismo Psychologiczne*, 2, s.201 210.
- [2] Gasparski P.(1991). Oszczędzanie psychologiczna charakterystyka motywów oszczędzania. Raport z badań. "Ekonomista", 2 3, 347 353, (w teczce).
- [3] Gąsiorowska A. (2003). Kwestionariusz do pomiaru postaw wobec pieniądza Raport niepublikowany.
- [4] Tyszka T, Zaleśkiewicz T. (2004). Psychologia pieniądza. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 6, par. 6.1, 6.4, 6.5, 6.6, s. 161-165 i 177-189.
- [5] Warneryd K.E. (2004).Oszczędzanie. W: T.Tyszka (red). *Psychologia ekonomiczna*. GWWP, roz 17, par.17.1, 17.2, s.530-536, par. 17.4 i 17.5, s. 539- 563. Gasparski P. (1993). Wyznaczniki indywidualnych skłonności do bankowych form oszczędności. *Bank i Kredyt*, 24, 16-21
- [6] Zaleśkiewicz T. (2004). Percepcja działań ekonomicznych W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, s. 82-100, par. 3.2, 3.3.
- [7] Zaleśkiewicz T. (2004). Przedsiębiorczość i podejmowanie ryzyka. W: T. Tyszka (red.), *Psychologia ekonomiczna*. Gdańsk: GWP, roz. 10, s. 303-331.
- [8] Zaleśkiewicz, T. (2011). Psychologia ekonomiczna. Warszawa: Wydawnictwo Naukowe PWN.
- [9] Zaleśkiewicz, T. (2002). Psychologia inwestora giełdowego. Gdańsk: GWP.

#### SECONDARY LITERATURE:

- [1] Bajcar B., Gąsiorowska A. (2004) *Poznawcze i temperamentalne uwarunkowania postaw wobec pieniędzy*. W: T. Listwan (red.), *Sukces w zarządzaniu kadrami. Perspektywa globalna i lokalna*, Prace Naukowe Akademii Ekonomicznej, nr 1032, Wrocław: Wydawnictwo AE, s. 27-42.
- [2] Bloom, W. (1995) Pieniądz, serce i umysł, Warszawa: Jacek Santorski & Co Wydawnictwo
- [3] Falkowski, A., Zaleśkiewicz, T. (red.) (2012). *Psychologia poznawcza w praktyce. Ekonomia, biznes, polityka*. Warszawa: Wydawnictwo Naukowe PWN.
- [4] Friedman, M. (1994) Intrygujący pieniądz. Z historii systemów monetarnych, Łódź: Wyd Łódzkie
- [5] Gasparski P. (1992). Percepcja ryzyka związanego z decyzjami finansowymi. *Przegląd Psychologiczny*, 2, 153-159.
- [6] Gasparski P. (2000). Psychologia ekonomiczna, Czasopismo Psychologiczne, tom 6, 3-4, 205-213.
- [7] Kozak, A. (2004) *Znaczenie pieniądza*, Lublin: Norbertinum
- [8] Tyszka T. (1997). Psychologia zachowań ekonomicznych. W-wa: PWN, r.8, s.160-178. r.1, s.15-31.
- [9] Wasowicz-Kiryło, G. (2008). Psychologia finansowa. Warszawa: Difin
- [10] Zaleśkiewicz, T. (2010). Psychologia ekonomiczna jako przykład zastosowania nauki w praktyce. W: M. Duczmal, J. Żurawska (red.), *Przedsiębiorczość akademicka – nauka i gospodarka* (s. 162 – 170). Opole: Wydawnictwo Instytut Śląski

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Psychologia procesów poznawczych

Name of subject in English: Cognitive psychology Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0104

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge in psychology

# **SUBJECT OBJECTIVES**

- C1 To provide knowledge of cognitive processes described from a psychological perspective
- C2 To make students aware of the extent to which cognitive processes are responsible for individual and group behaviors of man
- C3 Encourage group work and active discussion

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Demonstrate in-depth knowledge of the relationship between cognitive processes and behaviors such as decision making, problem solving, and proper assessment of situations, including social ones

PEU\_W02 Identify basic cognitive processes and is aware of their limitations

relating to skills:

PEU\_U01 Is able to formulate research problems as well as analyze and interpret research results

PEU\_U02 Is able to present research results and make their critical analysis

In the field of social competences:

PEU\_K01 Is able to work in a group, is ready to work in a group and manage group work

PEU\_K02 Demonstrate courage in communicating and defending one's views

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Mind and cognition. Preliminary issues	
Lec 2	Essence and form of mental representations	
Lec 3	Attention and awareness	
Lec 4	Perception	
Lec 5	Memory and memory activities	
Lec 6	Thinking and reasoning	
Lec 7	Solving problems, issuing courts, making decisions	
Lec 8	Course summary	
	Total hours	
	Seminar	Number of hours
Sem 1	Organizational matters	1
Sem 2	Concepts and schema. Positions in disputes over the nature of concepts.	2
Sem 3	Biology and human behavior	2
Sem 4	Perception and awareness	2
Sem 5	Learning and conditioning	2
Sem 6	Intelligence, cognition and memory	2
Sem 7	Problem solving processess	2
Sem 8	Colloquium and summary	2
	Total hours	15
	TEACHING TOOLS USED	

# N1. Lecture

- N2. Multimedia presentations of the lecturer
- N3. Multimedia presentations of students
- N4. Discussion

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

concluding (at semester end)	U	Way of evaluating learning outcomes achievement
F1 Multimedia presentations by students		Project evaluation; oral feedback

F2 Evaluation of presentations given by colleagues	Oral feedback
C Test	

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Nęcka, E., Orzechowski, J., Szymura, B. (2006) *Psychologia poznawcza* Warszawa: ACADEMICA Wydawnictwo SWPS & Wydawnictwo Naukowe PWN
- [2] Hock, R. R. (2003) 40 prac badawczych, które zmieniły oblicze psychologii Gdańsk: Gdańskie Wydawnictwo Psychologiczne

# SECONDARY LITERATURE:

- [1] Kalat, J. (2007) *Biologiczne podstawy psychologii* Warszawa: Wydawnictwo Naukowe PWN
- [2] Pinker, S. (2002) *Jak działa umysł* Warszawa: KiW

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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#### **SUBJECT CARD**

Name of subject in Polish: Psychologia twórczości i przedsiębiorczości Name of subject in English: Creativity and entrepreneurship psychology

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM0113W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark (X) final course					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4				

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of psychological functioning mechanisms of human

#### **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about entrepreneurship types and theories in this field of knowledge
- C2. Awareness of creative thinking stimulators and blockades.
- C3. Getting acquainted with promoting entrepreneurship in the organization rules

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_ W01 – Student has extensive knowledge on creative thinking and entrepreneurial activities.

Identifies the factors promoting and blocking entrepreneurial behavior both at an individual and group level

relating to social competences:

- PEU\_ K01 Student is prepared to initiate unusual, innovative solutions in organization. He can anticipate internal and external to the organization effects of those innovations. He can think in an entrepreneurial way
- PEU\_ K02 Student shows a willingness to identify, critically analyze and solve problems related to innovative activities occurring in the workplace

	PROGRAM CONTENT			
	Lectures	Number of hours		
Lec 1	The concept of entrepreneurship - theoretical basis	2		
Lec 2	Entrepreneurship types	2		
Lec 3	Entrepreneurship in management theories (1)	2		
Lec 4	Entrepreneurship in management theories (2)	2		
Lec 5	Conditions for the entrepreneurship development	2		
Lec 6	The importance of creativity in business	2		
Lec 7	The concept and criteria of creativity	2		
Lec 8	Theories of creative problem solving	2		
Lec 9	Convergent and divergent thinking	2		
Lec 10	Subjective and organizational barriers blocking creativity	2		
Lec 11	Training of creativity in organization	2		
Lec 12	Brainstorming as a tool for creative thinking	2		
Lec 13	Methods of creative thinking measurement	2		
Lec 14	Individual features of the creators and entrepreneurs	2		
Lec 15	Summary of course	2		
	Total hours 30			
	TEACHING TOOLS USED	·		
N1. Lec N2. Mu	ture timedia presentation			

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1		
C final test evaluation		

#### C final test evaluation

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] [Necka, E. (2001). Psychologia twórczości. Gdańsk: GWP
- [2] Piecuch, T. (2010). *Przedsiębiorczość. Podstawy teoretyczne*. Warszawa: Wyd. C.H. Beck
- [3] Proctor, T. (2002). Twórcze rozwiązywanie problemów. Gdańsk: GWP
- [4] Skonieczny, J. (2011). Kształtowanie zachowań innowacyjnych, przedsiębiorczych i twórczych w edukacji inżyniera. Wrocław: Wydawnictwo Indygo Zahir Media, cop.

# SECONDARY LITERATURE:

- [1] Duraj, J., Papiernik-Wojdera, M. (2010). *Przedsiębiorczość i innowacyjność*. Warszawa: Difin
- [2] Łaguna, M. (2010). Przekonania na własny temat i aktywność celowa. Badania nad przedsiębiorczością. Gdańsk: GWP
- [3] Morgan, M. (2001). Wyobraźnia organizacyjna. Warszawa: PWN

- [4] Strykowska, M. (red.) (2002). *Współczesne organizacje wyzwania i zagrożenia*. Poznań: Humaniora
- [5] West, M. (2000). Rozwijanie kreatywności wewnątrz organizacji. Warszawa: PWN

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Beata Bajcar, beata.bajcar@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Rachunkowość zarządcza Name of subject in English: Managerial accounting Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0033

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7			

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have basic knowledge in accounting and finance

# SUBJECT OBJECTIVES

- C1 Acquiring knowledge about the essence of management accounting and cost accounting models, their genesis as well as classification and specificity
- C2 Acquiring the ability to analyse the costs of their planning, forecasting and optimization as well as calculationsC2

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01 Demonstrate ordered knowledge of the nature of management accounting and cost accounting as well as their genesis and development stages in Poland and in the world.
- PEU\_W02 Characterize and know the methods and concepts of cost accounting and management accounting tools.

relating to skills:

- PEU\_U01 Is able to list, discuss, and indicate the differences between cost accounting models and their impact on the financial result.
- PEU\_U02 Is able to, in practice, perform cost calculations and perform cost analyses, their planning, forecasting and optimization.

relating to social competences:

- PEU\_K01 Is aware of the importance of management accounting in business practice, primarily its role in providing the management of the organization with economic information necessary to secure the organization's management processes, including the performance of its basic functions.
- PEU\_K02 Is prepared to collect, process and present financial and non-financial information about the project and the company and its environment, which aims to support managers in making operational and strategic decisions.

	PROGRAM CONTENT	Number of		
	Lectures	hours		
Lec 1	The essence and scope of managerial accounting - its place in the infernal system in management, genesis and evolution	1		
Lec 2	Concept, classification, grouping and cost settlement procedures - rules, stages, directions	2		
Lec 3	Calculation of costs - essence, subject, tasks of calculation (division and additional calculation, detailed calculation methods).	2		
Lec 4	Cost accounting models in management accounting - concepts of cost accounting models and criteria for their classification, cost accounting models and material and time scope, variations of cost accounting, control and decision accounts and types: (variable cost accounting, standard cost accounting, activity cost accounting).	2		
Lec 5	Other cost accounting models: (product life cycle costing, target costing, continuous improvement costing, costing, quality)	2		
Lec 6				
Lec 7	Budgeting as an enterprise management method - the essence, role and classification of budgets, budgeting methods, structure and stages as well as enterprise budget procedures	2		
Lec 8	Final test	2		
	Total hours	15		
	Classes	Number of hours		
Cl 1	Grouping of costs in accounting records	1		
Cl 2	Costs accountable	2		
C1 3	Calculation of costs	2		
Cl 4	Classic cost accounts	2		
Cl 5	Other cost accounting models	2		
Cl 6	Pricing and selection of assortment structure and technology	2		
Cl 7	Budgeting and deviation analysis	2		
C1 8	Final test	2		
	Total hours	15		
	TEACHING TOOLS USED			

- N1. Informative lecture
- N2. Multimedia presentation
- N3. Practical exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02 PEU_K01 PEU_K02	Written final test and oral amendment
F2	PEU_U01, PEU_U02 PEU_K01 PEU_K02	Assessment of the degree of commitment to the problems being solved
F3	PEU_U01, PEU_U02	Assessment of the budget semester task
F4 C (Lec) = F1	PEU_U01, PEU_U02	Final test

C (Lec) = F1

C (C1) = 0.1\*F2+0.3\*F3+0.6\*F4

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Rachunkowość zarządcza w przedsiębiorstwie (wyd. II), Edward Nowak, CeDeWu, 2018
- [2] RACHUNKOWOŚĆ ZARZĄDCZA, Zadania i testy, Anna Szychta, Justyna Dobroszek, Przemysław Kabalski, Wydawnictwo Uniwersytetu Łódzkiego, 2016
- [3] Rachunkowość zarządcza i rachunek kosztów. T. 1/S. Sojak. Toruń: Towarzystwo Naukowe Organizacji i Kierownictwa "Dom Organizatora", 2012.
- [4] Rachunkowość zarządcza. Analiza i interpretacja, Opracowanie zbiorowe, Wolters Kluwer, 2013
- [5] Rachunkowość Zarządcza I Rachunek Kosztów, Anna Karmańska, DIFIN, 2009

#### SECONDARY LITERATURE:

- [6] Rachunek kosztów i rachunkowość zarządcza :teoria i praktyka /red. nauk. E. Nowak. Wrocław : Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, 2011.
- [7] Rachunkowość zarządcza /A.A. Jaruga, P. Kabalski, A.Szychta. Warszawa: Wolters Kluwer, 2010.
- [8] Rachunkowość zarządcza przedsiębiorstw. Rachunek kosztów/ D. Sołtys (red), Wyd AE Wrocław 2009.
- [9] Rachunkowość w zarządzaniu kosztami i wynikami przedsiębiorstwa /K. Kobiela-Pionnier. Warszawa: Vizja Press & IT, 2010.
- [10] Rachunek kosztów i rachunkowość zarządcza / G. K Świderska. (red), Stowarzyszenie Księgowych w Polsce, Warszawa 2008

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Agnieszka Parkitna <u>agnieszka.parkitna@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Rozwiązywanie konfliktów w organizacji Name of subject in English: Problem resolving in Organization

Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0105

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### SUBJECT OBJECTIVES

- C1. Acquiring knowledge by the student in the field of interpersonal, group and organizational conflicts
- C2. To familiarize students with the methods of conflict resolution in groups and organizations.

# SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01The student has knowledge of psychological mechanisms and factors conducive to the emergence of conflicts.

PEU\_W02 Knows methods of analyzing conflict situations and solving the relating to skills:

PEU\_U01 Able to identify, interpret and evaluate conflict situations.

PEU U02 - Is able to independently prepare a conflict situation analysis.

relating to social competences:

PEU\_K01 Demonstrate readiness to identify problems in the area of conflict resolution in the organization.

PEU\_K02 – Is able to independently seek additional knowledge and develop their skills in the field of conflict resolution.

	PROGRAM CONTENT					
Lectures						
Lec 1	Conflicts - causes, functions, typologies.	1				
Lec 2	Dynamics in task and natural groups.	2				
Lec 3	The course of conflict situations.	2				
Lec 4	Phenomena accompanying conflicts - aggression, prejudices, stereotypes.	2				
Lec 5	Ways to resolve conflicts.	2				
Lec 6	Culture determinants of conflicts and the negotiation process.	2				
Lec 7	Social Negotiation	2				
Lec 8	Final test and summary	2				
	Total hours	15				
	Seminar	Number of hours				
Sem 1	Introduction. Organizational classes.	1				
Dem 1	introduction. Organizational classes.	1				
	Identification of features of conflict situations	2				
Sem 2	, and the second	2 2				
Sem 2 Sem 3	Identification of features of conflict situations	2 2 2				
Sem 2 Sem 3 Sem 4	Identification of features of conflict situations Simulation of a conflict situation – group A					
Sem 2 Sem 3 Sem 4 Sem 5	Identification of features of conflict situations Simulation of a conflict situation – group A Simulation of a conflict situation – group B	2				
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C	2 2				
Sem 2 Sem 3 Sem 4 Sem 5 Sem 6 Sem 7	Identification of features of conflict situations  Simulation of a conflict situation – group A  Simulation of a conflict situation – group B  Simulation of a conflict situation – group C  Simulation of a conflict situation – group D	2 2 2				

# TEACHING TOOLS USED

- N1. Lecture
- N2. Group exercises
- N3. Simulations
- N4. Team work
- N5. Discussion of problems and results of works

# N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
i i i i i i i i i i i i i i i i i i i	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback
2 Works propuled in groups	DELL MOS	Oral feedback. Work evaluation

C Student analytical report, final test

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. McKay, M., Davies, M., Fanning, P. (2001), Sztuka skutecznego porozumiewania się, Sopot, GWP
- 2. Fisher, R., Ury, W., Bruce, P. (1994). Dochodząc do tak. Warszawa, PWE
- 3. Necki, Z. (1999). Negocjacje w biznesie. Kraków, Wyd. Prof. Szkoły Biznesu
- 4. Witkowski, T, Chełpa, S. (2003) *Psychologia konfliktów*. Wrocław, Wydawnictwo Mediator

# SECONDARY LITERATURE:

- 1. Berne, E. (2004) W co grają ludzie,
- 2. Wojciszke, B. (2001) Człowiek wśród ludzi.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Statystyka matematyczna i ekonometria

Name of subject in English: Statistics and ekonometrics

Main field of study (if applicable): Management

Specialization (if applicable): Financial Management, Entrepreneurship, Innovations and Projects, Information Technologies in Management, Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0034

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	90		60		
Form of crediting	Crediting with grade		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	3		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.		0,7		

\*delete as applicable

#### PREREOUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of descriptive statistics.

#### **SUBJECT OBJECTIVES**

- C1: Acquiring knowledge of the methods of mathematical statistics and construction of economic models.
- C2: Mastering the skills of statistical inference and building economic models based on statistical data.
- C3: Mastering the ability to use statistical software in statistical analysis and econometric modeling.
- C4: Acquiring specific social competences to independently improve their knowledge, defend their own views in a professional and ethical manner.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 He has basic knowledge of mathematical statistics methods.

PEU\_W02 He has basic knowledge of econometrics.

relating to skills:

PEU\_U01 He is able to apply statistical and econometric methods in solving decision problems in management processes.

relating to social competences:

PEU\_K01 The student is able to independently develop their knowledge and skills. The student is able to interact and work in teams. The student shows readiness to identify, analyze and solve problems in the field of identification and analysis of decision problems. The

student is ready to create and solve decision models in the management information system environment.

PEU\_K02 The student is able to professionally seek and choose methods for solving decision problems and take responsibility for them. The student is able to convey and defend their own views related to the selection and application of mathematical and IT methods and tools in making decisions.

# PROGRAM CONTENT

	Lectures	Number of hours
Lec 1	The parameters of a random variable	2
Lec 2	Cumulative distribution function, selected distributions and their parameters.	2
Lec 3	The normal distribution, the central limit theorem.	2
Lec 4	Confidence interval. Interval estimation when the sample size is small.	2
Lec 5	Confidence interval. Interval estimation when the sample size is large.	2
Lec 6	Parametric hypothesis testing.	2
Lec 7	Comparing two populations. Comparing parameters, comparing distributions.	2
Lec 8	Non-parametric hypothesis testing.	2
Lec 9	Basics of econometrics. Economic models.	2
Lec 10	Gauss-Markov assumptions. The metod of least squares.	2
Lec 11	Statistical packages. Verification of econometric models.	2
Lec 12	Examples of linear models.	2
Lec 13	Examples of nonlinear models.	2
Lec 14	Multiple-equation econometric models.	2
Lec 15	End of course test.	2
	Total hours	30
	Laboratory	Number of hours
Lab 1	Descriptive statistics.	2
Lab 2	The normal distribution.	2
Lab 3	Confidence intervals.	2
Lab 4	Parametric hypothesis testing.	2
Lab 5	Non-parametric hypothesis testing.	2
Lab 6	Analysis of variance.	2
Lab 7	Econometric models.	2
Lab 8	End of course test.	1
	Total hours	15

# TEACHING TOOLS USED

- N1. A multimedia presentation.
- N2. Computer assisted data analysis.
- N3. Presentation of the project.
- N4. Written test.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
` '		Partial credit based on knowledge of statistical packages and a prepared project.
P (lectures)	PEU_W01 PEU_W02	Written test.

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

[1] Amir D. Aczel: Statistics in management, PWN, Warsaw 2006.[2] G.S. Maddala: Econometrics, PWN, Warsaw, 2006.

# SECONDARY LITERATURE:

- [1] Any handbook on statistics and econometrics.
- [2] Software manual

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Skowrońska-Szmer, <u>anna.skowronska-szmer@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name in Polish: Zarządzanie procesami I - metodyka i instrumenty projektowania

procesów

Name in English: Process Management I - process design methodology and tools

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management (BPM)

Level and form of studies: 2<sup>nd</sup> level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0082

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15	15		
Number of hours of total student workload (CNPS)	90	30	30		
Form of crediting	Examination	crediting with grade	crediting with grade		
For group of courses mark final course with (X)	-	-	-		
Number of ECTS points	3	1	1		
including number of ECTS points for practical (P) classes		1	1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,	0,7	0,7		

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### SUBJECT OBJECTIVES

To ensure fundamental knowledge (including application aspects) about:

C1. process management

C2. classical and modern methods and techniques used in the identification, analysis and design of business processes

To ensure fundamental skills to:

C3. identification, analysis, evaluation and improvement of business processes, using dedicated for this purpose methods, tools and techniques (including IT solutions)

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

PEU\_W01: has specialized knowledge about business processes, with particular emphasis on terminology and classification issues

PEU\_W02: knows objectives, assumptions and nature of the process approach

PEU\_W03: knows basic process management methodologies

PEU\_W04: knows classic and contemporary methods and techniques used in business processes management, in particular their identification, analysis and design

PEU\_W05: has knowledge about development stages of process-managed organization

# relating to skills:

PEU\_U01 can identify business processes

PEU\_U02 can analyse and evaluate business processes, using dedicated for this purpose methods, tools and techniques (including IT tools)

PEU\_U03 can improve existing processes and design new business processes, using dedicated for this purpose methods, tools and techniques (including IT tools)

# relating to social competences:

PEU\_K01 expresses a willingness to identify, critically analyse and resolve problems that arise during tasks realization and to verify own knowledge

PEU\_K02 expresses a willingness to set own and teamwork priorities, and to select independently methods and tools to perform tasks

PEU\_K03 is ready to take responsibility for the assigned tasks

PEU\_K04 expresses a courage in communicating and defending own views

PEU\_K05 is prepared to teamwork

PEU\_K06 is prepared to initiate changes in the organization, to participate in planning and implementing changes and to foresee organizational changes effects

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1-2	Business process as a management object. Methodological fundamentals of business process management	4
Lec 3	The identification of business processes. The nature and assumptions of business processes' identification	2
Lec 4	Process architecture in organization	2
Lec 5-6	Business process modelling: objectives, assumptions and conditions of business process modelling. The process of business processes modelling. Different approaches to modelling.	4
Lec 7	Classical methods of business processes' registration and design.	2
Lec 8-9	Contemporary methods of business processes' identification, analysis and design.	2
Lec 10- 11	Principles of processes improvement	4
Lec 12	Implementation and controlling of business processes	2
Lec 13	Project management: business processes improvement	2
Lec 14	IT tools for business process management (including modelling)	2
Lec 15	Forms of process organization. Factors influencing the organization process. Determinants of business process management	2
	Total hours	30
	Classes	Number of hours
Cl 1	Introduction to classes	2
Cl 2	The organization analysis from process approach perspective	2
C1 3	Identification of business processes in a given enterprise	2
Cl 4	Primary process mapping using selected methods and techniques	2
Cl 5	Primary process analysing using selected methods and techniques	2
Cl 6	New process designing using selected methods and techniques	2
Cl 7-8	Conditions of process management: structural, informational, social and	4

	technological	
	Total hours	15
	Laboratory	Number of hours
Lab 1-2	Introduction to computer program dedicated to record, analyse and optimize business processes	3
Lab 3-4	Implementing primary business process into dedicated computer program	4
Lab 5	Primary business process analysing using dedicated computer program	2
Lab 6-7	Primary business process improving using dedicated computer program	4
Lab 8	Discussion over the report of primary business process improving	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Case studies presented during lecture
- N4. Discussion of selected issues
- N5. Analysis and evaluation of real organization's assigned characteristics
- N6. Self-study: classes preparation and final assessment preparation
- N7. Presentations prepared by students
- N8. Report on process improvement (prepared in dedicated IT tool)

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

forming (during	Learning outcomes number	Way of evaluating learning outcomes achievement
F, P	1 PHI I IOI-3	Scoring students' reports and presentations (during classes and laboratory)
P	PEU_W01-5	written assessment

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Bitkowska A.: Zarzadzanie procesami w przedsiębiorstwie: aspekty teoretyczno-praktyczne, Difin, Warszawa 2011.
- [2] Czekaj J. [red.]: Metody zarzadzania procesami w świetle studiów i badan empirycznych, Wydawnictwo Uniwersytetu Ekonomicznego, Krakow 2009.
- [3] Czekaj J. [red.]: Zarzadzanie procesami biznesowymi: aspekt metodyczny, Wydawnictwo Uniwersytetu Ekonomicznego, Krakow 2009.
- [4] Grajewski P.: Procesowe zarządzanie organizacją, PWE, Warszawa 2012.
- [5] Rummler G.A., Brache A.P., Podnoszenie efektywności organizacji, PWE, Warszawa 2000.

# SECONDARY LITERATURE:

- [6] Aalst W., Desel J., Oberweis A.[red.]: Business process management: models, techniques, and empirical studies, Springer-Verlag, Berlin 2000.
- [7] Bitkowska A.: Zarzadzanie procesami biznesowymi w przedsiębiorstwie, Vizja Press & IT, Warszawa 2009.
- [8] Burlton R.T.: Business process management: profiting from process, Indianapolis, Sams, 2001.
- [9] Grajewski P.: Organizacja procesowa, PWE, Warszawa 2007.

- [10] Jones D.T., Zobaczyć całość: mapowanie rozszerzonych strumieni wartości: podręcznik wdrażania przełomowych zmian wg LEI, Lean Enterprise Institute Polska, Wrocław 2007.
- [11] Kuchta D., Klaus-Rosińska A.: Podejście procesowe teoria i praktyka, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2011.
- [12] Kunasz M.: Zarzadzanie procesami, Wydawnictwo Volumina.PL Daniel Krzanowski, Szczecin 2010.
- [13] Lasek M., Otmianowski B., Pęczkowski M.: Modelowanie, analiza oraz zarządzanie procesami biznesowymi na potrzeby metodologii Six Sigma z wykorzystaniem narzędzi informatycznych: iGrafxTM FlowCharter, iGrafxTM Process, iGrafxTM Process for SixSigma, iGrafxTM Process Central, Wydawnictwo WIT, Warszawa 2005.
- [14] Nowosielski S. [red.], Podejście procesowe w organizacjach, Wydawnictwo Uniwersytetu Ekonomicznego, Wrocław 2011.
- [15] Ould M.A.: Business process management: a rigorous approach, British Computer Society, Swindon 2005.
- [16] Pietroń R.: Process management, PRINTPAP, Łódź 2011.
- [17] Rother M.: Naucz się widzieć: eliminacja marnotrawstwa poprzez mapowanie strumieni wartości, Lean Enterprise Institute Polska, Wrocław 2009.
- [18] Skrzypek E., Hofman M.: Zarzadzanie procesami w przedsiebiorstwie: identyfikowanie, pomiar, usprawnianie, Oficyna a Wolters Kluwer business, Warszawa 2010.
- [19] Weske M.: Business process management: concepts, languages, architectures, Springer, Berlin 2007.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Joanna Zimmer, joanna.zimmer@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### SUBJECT CARD

Name in Polish: Zarządzanie procesami II – procesy badawczo-rozwojowe

przedsiębiorstwa

Name in English: Businesses management - Process Management II- R&D Processes

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management Level and form of studies: 2nd level, full-time/part-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0083

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	Crediting with grade	Crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

# SUBJECT OBJECTIVES

To ensure fundamental knowledge (including application aspects) about:

- C1. meaning of R&D processes in selected types of organizations
- C2. R&D processes in selected types of organizations
- C3. relationships between selected R&D process and other organizational processes
- C4. impact of the environmental on the R&D
- C5. key management issues of R&D processes
- C6. Analyze, evaluate and project R&D process in selected types of organizations
- C7. Analyze, evaluate relationships between selected R&D process and other organizational processes and environment
- C8. Identify and analyze typical problems of R&D management

#### SUBJECT LEARNING EFFECTS

# relating to knowledge:

- PEU\_W01 understands meaning of R&D processes in organization
- PEU\_W02 has knowledge about R&D processes in selected types of organizations
- PEU\_W03 understands relationship between R&D processes and other organizational processes
- PEU\_W04 explains and illustrates the impact of the environment on the R&D processes of the organization,
- PEU\_W05 identifies the basic of the management of R&D processes issues

# relating to skills:

- PEU\_U01 projects, analyzes, evaluates R&D processes in selected types of organizations
- PEU\_U02 analyzes and evaluates relationships between R&D processes and other organizational processes
- PEU\_U03 –analyzes and evaluates the impact of the environment on the R&D processes of the organization
- PEU\_U04 identifies and analyzes basic management of R&D processes issues

	PROGRAMME CONTENT				
	Form of classes – lecture				
Lec 1	Introduction to issues related to the management of R&D processes	1			
	Types and model of innovation				
Lec 2	Factors of decision related to new product development and its features	2			
Lec 3	Planning and allocation of resources in process of product management	2			
Lec 4	Determinants of innovation	2			
Lec 5	Organization and process	2			
Lec 6	The measurement and control of process	2			
Lec 7	Stimulating employee creativity	2			
Lec 8	Summary and test	2			
	Total hours	15			

	Number of hours	
Cl 1	Introduction to classes	1
C1 2	Factors of decision related to new product development and its features	2
C1 3	Stimulating employee creativity methods	
Cl 4	Organization and flow of innovation process	2
Cl 5	Verification of the adopted solutions regarding the course of research and development processes	2
Cl 6	Product delivering	2
Cl 7	The measurement and control of process	2
Cl 8	Analysis and evaluation of solutions developed	2
	Total hours	15
	TEACHING TOOLS USED	
N1. T	raditional lecture with multimedia presentation	

- N2. Questions to students during lecture
- N3. Case studies presented during lecture
- N4. Discussion of selected issues
- N5. Independent tasks self-collection data on the selected organization: preparation a report and presentation and preparation for the exam
- N6. . Reports and presentations prepared by students

#### **EVALUATION OF SUBJECT LEARNING EFFECTS ACHIEVEMENT**

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning effect numer	Way of evaluating educational effect achievement			
I H I	PEU_U01-4, PEU_K01-3	Scoring students' report and presentations (during classes)			
P1	Final mark consists of F1(100%)				
F2	PEU_W01-5 PEU_K01-3	Exam			
P2	Final mark consists of F2 (100%)				

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Bitkowska A., Zarządzanie procesami w przedsiębiorstwie: aspekty teoretycznopraktyczne, Difin, Warszawa, 2011.
- [2] Loch, Ch., H., Kavadias S., *Handbook of new product development management*, Oxford, Burlington: Butterworth-Heinemann, 2008.
- [3] Łunarski, J., Projektowanie procesów: technicznych, produkcyjnych i gospodarczych, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów, 2012.
- [4] Shore, J., Warden S., The Art. Of Agile Product Development, O'Reilly, Beijing 2008.
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# SECONDARY LITERATURE:

- [1] Bitkowska A., Zarządzanie procesami biznesowymi w przedsiębiorstwie, Vizja Press&IT, Warszawa 2009.
- [2] Czekaj J. (red), Metody zarządzania procesami w świetle studiów i badań empirycznych, Wydawnictwo Uniwersytetu Ekonomicznego, Kraków, 2009.
- [3] Czekaj J. (red), Zarządzanie procesami biznesowymi: aspekt metodyczny, Wydawnictwo Uniwersytetu Ekonomicznego, Kraków,2009
- [4] Gorchels L., Zarządzanie produktem: od badań i rozwoju do budżetowania reklamy, Wydawnictwo Helion, Gliwice 2007.
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# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr inż. Katarzyna Walecka-Jankowska; katarzyna.walecka-jankowska@pwr.wroc.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie procesami III – CRM i strategia marketingowa Name of subject in English: Process Management III – CRM and Marketing Strategy

Main field of study (if applicable): Management.

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0085

Group of courses NO

•					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	60			30	30
<i>B</i>	crediting with grade			crediting with grade	crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	2			1	1
including number of ECTS points for practical classes (P)				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				0.7	0.7

<sup>\*</sup>delete as not necessary

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of management basics
- 2. Knowledge of marketing basics

#### SUBJECT OBJECTIVES

To provide in-depth knowledge, taking into account its applied aspects, regarding:

- C1. Marketing orientation in business management, its role in managing Customer Relationship Management (CRM) and the formulation and implementation of marketing strategy.
- C2. Selected used concepts, processes, methods and decisions in customer relationship management (CRM) and in the formulation and implementation of marketing strategy.
- C3. Understand contemporary challenges to the marketing activities of businesses, relevant to CRM customer relationship management and marketing strategy.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 - has an in-depth knowledge of marketing orientation in management enterprise.

PEU\_W02 - knows and understands selected relevant concepts, processes, decisions and methods used in in customer relationship management (CRM) and the formulation and implementation of marketing strategy.

- PEU\_W03 knows selected relevant decision-making problems and approaches to solving them
   occurring in customer relationship management and in the formulation as well as
  implementation of marketing strategy.
- PEU\_W04 knows and understands significant from the perspective of CRM and marketing strategy challenges for marketing activities of contemporary enterprises.

## relating to skills:

PEU\_U01 - is able to apply selected concepts and methods for the management of relations with Customer Relationship Management (CRM) and marketing strategy formulation and implementation.

PEU\_U02 - is able to analyse selected aspects, processes within Customer Relationship Management (CRM) and marketing strategy and to develop, within scope, design appropriate improvements.

PEU U03 - is able to formulate and justify guidelines, which may be useful

# relating to social competences:

- PEU\_K01 is aware of the need to develop as well as to independently and critically assess the scope and level of his/her professional knowledge and skills, in particular in the field of customer relationship management (CRM) and the formulation and implementation of marketing strategy.
- PEU\_K02 demonstrates readiness to set priorities in own work and in a team, as well as to solve problems, select methods and tools to solve assigned tasks.
- PEU\_K03 shows readiness to undertake teamwork and to take responsibility, within the framework of designated organisational roles, for the tasks and co-workers entrusted to him/her, not only in the content dimension but also in the ethical one.
- PEU\_K04 is prepared to initiate changes in the organisation and to participate in their planning and their implementation.

	PROGRAMME CONTENT				
	Lecture N				
Lec 1	The introduction to CRM and marketing strategy.	2			
Lec 2	The essence of relation as a process. CRM rules.	2			
Lec 3	Creating relationship values	2			
Lec 4	Increasing the value of relationships over the life cycle of a relationship.	2			
Lec 5	Increasing the profitability of the relationships	2			
Lec 6	Strategie wzajemnego dostosowania się firmy i klienta	2			
Lec 7	Aspects of CRM. Customer service as an aspect of CRM.	2			
Lec 8	Relationship strategies with key customers.	2			
Lec 9	Rozwiązania organizacyjne w CRM	2			
Lec 10	IT solutions to support customer relationship management (CRM)	2			
Lec 11	The essence of marketing strategy. The marketing planning process	2			

Lec 12	Marketing strategy of a contemporary company	2
Lec 13	Internet marketing strategy	2
Lec 14	Lec 14 Test	
Lec 15	The assessment of CRM and marketing strategy in company.	2
	Total hours	15
	Project	Number of hours
Proj 1	Introduction to the project	1
Proj 2	Description of the first project task.	2
Proj 3	Analysis of selected content-related problems in the implementation of the of the first project task.	2
Proj 4	Presentation of the developed first design task. Introduction to the target project task.	2
Proj 5	Characteristics of the target project task.	2
Proj 6	Analysis of substantive problems related to the implementation of the target project task	2
	Analysis of substantive problems related to the implementation of the target project task. Presentation of the developed target project task project task	2
	Total hours	15
	Seminar	Number of hours
Semin 1	Introduction to the seminar	1
Semin 2	Introductory tasks for the seminar. Characteristics and assignment first seminar topics.	2
Semin 3	Characterisation and assignment of the following seminar topics. Introduction to the development of a CRM good practice database and Strategy Marketing Strategy. Presentations and discussion of current seminar topics.	2
Semin 4-7	Characterisation and assignment of the following seminar topics.  Presentations and discussion of current seminar topics. Presentations and Analysis of selected elements of the CRM good practice databases under development and Marketing Strategy.	8
Semin 8	Presentations and discussion of current seminar topics. Presentation and analysis of selected elements of the developed good practice databases. Summary of the class. Summary of the seminars.	2
	Total hours	15
	TEACHING TOOLS USED	

- N1. Traditional lecture with multimedia presentation; N2. Questions posed to the audience in lecture; N3. Case studies; N4. Discussion of selected problems;

- N5. Questions posed to students in seminars and project classes;
- N6. Management role-play in given CRM situations;
- N7. Self- or team analysis and evaluation of assigned CRM as PCts or strategy marketing strategy;
- N8. Independent or team work: preparation for class and preparation for the colloquium;
- N9. Tutoring (available to interested students, selected by the tutor);
- N10. Written elaboration of the solution to the project assignment;
- N11. Written development of an assigned substantive problem in CRM or strategy

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F	Learning	Way of evaluating learning outcomes achievement
Torining	outcomes	
during	code	
semester), P –		
concluding (at		
semester end)		
P1		Evaluation of developed project tasks, developed issues and case studies assigned in class class, activity and engagement in class (including work in a team), for selected students - also evaluation of participation in tutorials
P2	PEU_W01-4	Test

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Amstrong G., Kotler Ph., Marketing. Wprowadzenie, Wydawnictwo Nieoczywiste, Warszawa 2016.
- [2] Burnett K., Relacje z kluczowymi klientami, Oficyna Ekonomiczna, Kraków 2002.
- [3] Ciurla M., Nowak M.W., Customer Relationship Management, [w:] Hopej M., Kral Z., (red. nauk.), Współczesne metody zarządzania w teorii i praktyce, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2011.
- [4] Kotler Ph. Keller K.L., Marketing. (tyt.oryg.: Marketing Management), wyd. 14, Rebis, Poznań 2012.
- [5] McDonald M., Wilson H., Plany marketingowe, Oficyna a Wolters Kluwer Business, Kraków 2012.
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- [7] Reed J., Szybkie łącze z klientami: marketing internetowy. Wszystko, co musisz wiedzieć, by wypromować swoją firmę w sieci, Helion, Gliwice 2012.
- [8] Storbacka K., Lehtinen J.R., Sztuka budowania trwałych związków z klientami, CRM, Oficyna Ekonomiczna, Kraków 2001.

# SECONDARY LITERATURE:

- [9] Bieńkowska A., Nowak M. W., Zgrzywa-Ziemak A., Zarządzanie relacjami z klientami (CRM) a inne metody zarządzania współwystępowanie i efekty stosowania, Marketing i Rynek, nr 8, CD, 2014, s. 31-38
- [10] Biernacki M., Nowak M. W., Jak poprawić satysfakcję pacjentów: zrozumieć sukces Cleveland Clinic, Handel Wewnętrzny, nr 5. (370), wrzesień-październik, 2017, s. 53-62.

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- [13] Chaffey D., Digital business i e-commerce management: strategia, realizacja, praktyka. PWN, Warszawa 2016.
- [14] Cheverton P., Kluczowe umiejętności marketingowe, Strategie, techniki i narzędzia sukcesu rynkowego, One Press, Helion, Gliwice 2006.
- [15] Deszczyński B., CRM. Strategia, system, zarządzanie zmianą. Jak uniknąć błędów i odnieść sukces wdrożenia, Oficyna a Wolters Kluwer business, Warszawa 2011.
- [16] Dyché J., CRM: relacje z klientami, Helion, Gliwice 2004.
- [17] Fonfara K., Marketing partnerski na rynku przedsiębiorstw, PWE, Warszawa 2004.
- [18] Furtak R., Marketing partnerski na rynku usług, PWE, Warszawa 2003.
- [19] Grębosz M., Siuda D., Szymański G., Social media marketing, Wydawnictwo Politechniki Łódzkiej, Łódź 2016.
- [20] Horovitz J., Strategia obsługi klienta, PWE, Warszawa 2006.
- [21] Lakhani K. R., Iansiti M., Cyfrowa wszechobecność, Harvard Business Review Polska, nr 145, marzec 2015.
- [22] Mitręga M., Marketing relacji. Teoria i praktyka, Wyd. CeDeWu, Warszawa 2005.
- [23] Nowak M.W., Rozwiązania organizacyjne wspierające zarządzanie relacjami z klientami, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 272, Wrocław 2012, s. 134-142.
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- [w:] Skalik J., Bełz G. (red. nauk.), Strategiczne i operacyjne problemy rozwoju i wzrostu przedsiębiorstwa, Prace Naukowe nr 218, Wydawnictwo Uniwersytetu Ekonomicznego, Wrocław 2011.
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- [29] Regiec P., Cztery filary skutecznej sprzedaży w Internecie, Harvard Business Review Polska, nr 184, czerwiec 2018.
- [30] Scott D.M., Nowe zasady marketingu i PR: jak korzystać z komunikatów informacyjnych, blogów, podcastingu, marketingu wirusowego oraz mediów internetowych w celu bezpośredniego dotarcia do nabywcy, Wolters Kluwer Polska, Warszawa 2009.
- [31] Stachowicz-Stanusch A., Stanusch M., CRM. Przewodnik dla wdrażających, Placet, Warszawa 2007.
- [32] Travaglini A., Puorto S., D'Amico V., Marketing internetowy w turystyce i strategie revenue management w hotelarstwie, CeDeWu, Warszawa 2017.
- [33] Turner J., Shah R., Jak zarabiać w mediach społecznościowych? Rozwijaj firmę dzięki nowoczesnym narzędziom marketingowym, wyd. II, Helion, OnePress, Gliwice 2015.
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- [35] Wskazane źródła i publikacje z czasopism (w tym poprzez bazy danych online: np.
- EMIS) naukowych oraz adresowanych do praktyków zarządzania: Przegląd

Organizacji, Harvard Business Review Polska, Ekonomika i Organizacja Przedsiębiorstwa, Marketing i Rynek, Handel Wewnętrzny, Marketing w Praktyce i in.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Milleniusz Nowak, Milleniusz.Nowak@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Zarządzanie procesami V – ocena skuteczności i efektywności

procesów

Name of subject in English: Process Management V - efficiency and effectiveness

evaluation

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory
Subject code: W08ZZZ-SM0087

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15		15	
Number of hours of total student workload (CNPS)	30	30		60	
Form of crediting	crediting with grade*	crediting with grade*		crediting with grade*	
For group of courses mark final course with (X)					
Number of ECTS points	1	1		2	
including number of ECTS points for practical (P) classes		1		2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0,7		0,7	

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basics of organization and management and methodology and designing organizational processes as well.

# **SUBJECT OBJECTIVES**

- C1 Presenting students the knowledge about the objectives and methods of organization performance and processes evaluation
- C2 To familiarize students with the methods and metrics for assessing and measuring the effectiveness and efficiency of processes
- C3 Presenting students the essence of process controlling
- C4 Providing students with knowledge about the financial aspects of the processes realization and how to effectively manage the company's financial resources in the context of a process approach.
- C5 Development of practical skills which allow students for designing the system of process controlling by themselves which allow to assess the effectiveness and efficiency of any process.
- C6 Improving the ability to apply financial instruments (activity based costing, budgeting and analysis of costs deviation) for the effective management of financial resources in the context of process approach

C7 Inspiring students to broaden the knowledge and skills to assess the effectiveness and efficiency of processes by themselves. Developing the skills of persuasion and defending their views

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU\_W01: It explains the essence of the process approach to management. Distinguishes basic types of processes. Explains the objectives, methods and levels of the organization performance and processes evaluation.
- PEU\_W02: Characterizes methods and measures of effectiveness and efficiency of the processes in the context of different types of processes. Knows the ways and means to increase the efficiency of processes.
- PEU\_W03: Explains the nature, instruments and the conditions of process controlling implementation.
- PEU\_W04: Explains the concept and scope of activity based costing applications. Understands and explains the financial aspects of the process implementation.

#### relating to skills:

- PEU\_U01: Examines the course of the basic processes in the organization in the context of their effectiveness and efficiency identifies the basic phases and stages of the process, their goals, needs of the process clients, implementers and managers.
- PEU\_U02: Designs the systems of evaluation the business processes and theirs outcomes (ie, system of measures allowing to assess the effectiveness and efficiency of the process) and develops a plan of implementation solutions that allows their implementation in the organization. Is able to apply advanced organizational and instrumental solutions of process controlling.
- PEU\_U03: Can analyze the activity based costs, analyze and interpret the efficiency of business processes, choose the appropriate measures of assessment processes in accordance with the type of process.

## relating to social competences:

- PEU\_K01: Is prepared to seek the knowledge in the scope of the evaluation and improvement of process efficiency by himself and aware of the need to broaden it.
- PEU\_K02: Is prepared to provide, persuade and to defend his opinions in the name of achieving common goals.

	PROGRAM CONTENT				
	Lectures				
Lec 1	Introduction, overview of the lecture (agenda).  Process approach to the organization - the level of organization, the level of the process. Typology of processes.	2			
Lec 2	Assessment of the organization performance - the aims, methods and levels of evaluation, the evaluators. The criteria and types of organization's performance evaluation - rating organization as a whole and the evaluation of selected processes.	2			
Lec 3	Evaluation of the effectiveness of the process (process goals). Efficiency as a constitutive feature of the process. Systems of cost and efficiency management. The relationship between efficiency and strategy.	2			
Lec 4	Measuring the effectiveness and designing the system of the effectiveness management. Instruments and methods for forming the effectiveness of processes. Measures of the processes effectiveness (financial and non-financial).	3			
Lec 5	The process controlling: the essence, the instruments and the conditions of the implementation the process controlling.	2			
Lec 6	Financial aspects of the process implementation - responsibility accounting and accounting of processes. The idea and the scope of application activity based	2			

	costing (Activity Based Costing).	
Lec 7	Improving the efficiency of the process - redesigning the processes for activity-based cost reduction.	1
Lec 8	Final test (Colloquium)	1
	Total hours	15
	Classes	Number of hours
Cl 1	Explanation of how to implement the activities and the criteria for students assessing.  Activity based costing - solving tasks of activity based costing (the selected processes and process controlling point of view)	1
Cl 2	Activity based costing - solving tasks of activity based costing (the selected processes and process controlling point of view)	2
C1 3	ABM - management accounting determined by activities (budgeting in the context of activities, evaluating the profitability of sales, etc.)	2
Cl 4	Analysis of the processes cost variation	2
Cl 5	Case studies - selection of evaluation measures of selected production processes	2
Cl 6	Case studies - selection of evaluation measures of selected logistic processes	2
Cl 7	Case studies - selection of evaluation measures of selected service processes	2
Cl 8	Final test (Colloquium)	2
	Total hours	15
	Laboratory	Number of hours
Lab 1		
Lab 2		
Lab 3		
Lab 4		
Lab 5		
•••		
	Total hours	
	Project	Number of hours
Proj 1	Class organization. Explanation the topic of the project, discussion on the project evaluation conditions. A detailed discussion of the tasks that make up the working draft documents in the form of a written report. Creation of project teams. GOAL of a project work: Shaping the system of process controlling for chosen processes in the organization.	2
Proj 2	Declaration of the designing object: the organization and the process that will be studied. Consultation and realization of task 1: general characteristics of the organization, the presentation of the main phases and stages of the examined process against the background of processes architecture in the studied organization, the definition of process customers and their needs.	
Proj 3	Consultation and realization of task 2: Mapping the chosen process - constructing the process map, determining the critical factors of the process. Identifying the purposes of the process and its major sub-processes. Modeling and improvement of the process. Discussion on the presentation of the work of chosen students.	2
Proj 4	Consultation and realization of task 3: Designing the system of metrics - the	2

	Total hours	_
• • •		
Sem 3		
Sem 2		
Sem 1		
	Seminar	Number of hours
	Total hours	15
	Overview of written reports with the findings of the diagnosis and the proposals for design.  Summary of project. Final assessment.	
Proj 8	Presentations of the projects, evaluation of presentations, discussion with students.	2
Proj 7	Discussion on the presentation of the project. Collection of design work (in a written record).	1
Proj 6	Consultation and realization of the task 5: Shaping the organizational structure of the process management: sharing of responsibility for achieving the goals of the process (pointing managers and implementers of the process and assign them responsibilities and powers). Creating the procedure for implementation of the proposed solutions - work in project teams (consulting substantive issues, evaluation of student progress.)	2
Proj 5	Consultation and realization of task 4: Designing the methods of process measurement and evaluation: designing a system for monitoring processes (reporting on the implementation of the process). Work in project teams (consulting substantive issues, evaluation of student progress.)	2
	efficiency of the selected process (looking from the perspective of the process). Work in project teams - consulting substantive issues, evaluation of student progress.	

- N1. Presentation of knowledge in the form of direct communication (lecture) audio-visual media (slides, computer projector).
- N2. Lecture materials and classrooms (synthesis) available in a paper form.
- N3. Discussion.
- N4. A written report an analysis of the case study (the project of process controlling system for the selected process in the organization).
- N5. Presentation of the final report by the students using audio-visual media (slides, computer projector)
- N6. Student's own work.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at	Learning outcomes number	Way of evaluating learning outcomes achievement
semester end)		
F1	PEU_W01 – PEU_W04	Colloquium
	PEU_K01	
Lecture	P=100%F1	
F2	PEU_U01, PEU_U02,	Activity on the project. Participation in the discussion
	PEU_K01	

Project	P=0.6*F5+0.4*F6	
F6	PEU_U03, PEU_K01, PEU_K02	Activity on the classes. Participation in the discussion
F5	PEU_U03	Colloquium
Classes	P=0,15*F2+0,7*F3+0,15*	F4
F4	PEU_U01, PEU_U02 PEU_K02	Multimedia presentations relating to solutions prepared by students
F3	PEU_U01, PEU_U02 PEU_K01	Written report
F3	PEU_U01, PEU_U02	Written report

# PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Bitkowska A.: Zarzadzanie procesami w przedsiębiorstwie: aspekty teoretyczno-praktyczne, Difin, Warszawa 2011.
- [2] Grajewski P., Organizacja procesowa, PWE 2007.
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- [4] Kaplan R., Cooper R., Zarządzanie kosztami i efektywnością, Oficyna Ekonomiczna, Kraków 2002
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#### SECONDARY LITERATURE:

- [1] Bitkowska A.: Zarzadzanie procesami biznesowymi w przedsiębiorstwie, Vizja Press & IT, Warszawa 2009.
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- [7] Sobańska I. (red.), Rachunek kosztów. Podejście operacyjne i strategiczne, Wydawnictwo C.H. Beck, Warszawa 2009.
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PhD. Eng. Anna Zabłocka-Kluczka, anna.zablocka-kluczka@pwr.wroc.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie procesami VI -Doskonalenie jakości procesów Name of subject in English: Process Management VI – Improving the Quality of

**Processes** 

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory
Subject code: W08ZZZ-SM0088

Group of courses: NO

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15		15	
Number of hours of total student workload (CNPS)	60	60		60	
Form of crediting	crediting with grade	crediting with grade		crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	2	2		2	
including number of ECTS points for practical (P) classes		2		2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	0,7		0,7	

<sup>\*</sup>delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of the fundamentals of quality management and the basic of business processes management.

#### SUBJECT OBJECTIVES

#### Knowledge objectives:

C1 Acquisition of extended knowledge of concepts and methods of process quality improvement in various types of organisations.

# Skill objectives:

C2 Acquiring the ability to apply selected methods to assess and improve process quality in a hypothetical and real organization.

# Social competence objectives:

C3 To develop skills of social responsibility for given tasks.

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

PEU\_W01 Student knows the methods of designing, analysing, modelling, assessing and improving business processes.

# relating to skills:

- PEU\_U01 The student is able to individually identify and assess the possibilities of applying process quality improvement methods in a hypothetical and real organisation.
- PEU\_U02 The student is able to apply correctly the process quality improvement methods in various types of organisations.

# relating to social competences:

- PEU\_K01 Student can cooperate in a team.
- PEU\_K02 Student has an ethical attitude.
- PEU\_K03 Student is responsible for the timely completion of given tasks.

		Number of	
Lectures			
Lec 1	Introduction to the lecture. Basic terms.	2	
Lec 2	Concepts of process improvement. Kano model and method.	2	
Lec 3	Models of process management maturity evaluations.	2	
Lec 4	Methods of mapping processes for improvement. purpuse	2	
Lec 5	Methods of analysing the risk of defects in a process.	2	
Lec 6	Matrix techniques in process improvement. QFD method - Quality Function Deployment.	2	
Lec 7	Applications of QFD in service processes.	2	
Lec 8	Techniques supporting analysis and quality improvement (so called new quality improvement techniques). Method of force field analysis.	2	
Lec 9	Methods of service process quality assessment: SERVQUAL, CSI.	2	
Lec 10	Methods of service process quality assessment: CIT, Mystery shopping and others.	2	
Lec 11	Methods of analysis and improvement of workstation location in a process.	2	
	Methods of analysis and improvement of workstation location in a process - continued.		
Lec 13	Concepts of organization development based on processes. Lecture summary.		
Lec 14	Passing test -the first term .	2	
Lec 15	Passing test – the second term	2	
	Total hours	30	
	Classes	Number of hours	
Cl 1	Introduction classes.	1	
C1 2	Defining the characteristics of process quality.	2	
	Application of the Kano method for determining process quality features.	2	
C1 4	Application of the PFMEA method in improving a service process.	2	
Cl 5	Application of the matrix technique to improve a process. QFD method.	2	
Cl 6	Application of selected modern quality improvement techniques to process analysis.	2	
C1 7	Application of analysis and location of workstations in a process methods.	2	
C1 8	Passing test.	2	
	Total hours	15	
		Number of	

		hours
Proj 1	Instructional classes. Discussing the scope of the project.	1
Proj 2	Consulting the research results: characteristics of process management.	2
Proj 3	Consulting the research results: characteristics of process management.	2
Proj 4	Consulting the research results: analysis and evaluation of process management system (maturity of the process management system).	2
Proj 5	Consulting the research results: analysis of a selected process.	2
Proj 6	Consulting the research results: analysis of a selected process.	2
Proj 7	Consulting the research results: proposed improvement solutions.	2
Proj 8	Presentations of projects. Credit for the project.	2
	Total hours	15

- N1. (lecture) Traditional lecture presentation using a slide projector.
- N2. (lecture) Own work independent literature studies and preparation for a credit test.
- N3. (classes) Solving problematic tasks.
- N4. (project) Research conducted in a real organization.
- N5. (project) Consulting the results of project work.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_K02, PEU_K03	Written test
F2	PEU_U01, PEU_K02, PEU_K03	Written test of tasks.
F3	PEU_U01, PEU_K01, PEU_K02, PEU_K03	Evaluation of tasks solving during the classes.
F4	PEU_U02, PEU_K01, PEU_K02, PEU_K03	Project assessment.

C (lecture)= F1

C (classes) = 50% F2 + 50% F3

C (project) = F4

## PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Materials posted on the lecturer's website (ePortal).
- [2] Hartung M.F., Lean Six Sigma: quality & process management for managers & professionals. Norderstedt: Books on Demand, 2014.
- [3] Lunau S., Meran R., Six sigma+lean toolset: mindset for successful implementation of improvement projects, Springer, Heidelberg 2013.
- [4] Łuczak J., Matuszak-Flejszman A., Metody i techniki zarządzania jakością: kompendium wiedzy Quality Progress®, Poznań 2007.

# SECONDARY LITERATURE:

- [5] Fertsch M. (red), Grzybowska K. (red), Stachowiak A. (red), Logistyka i zarządzanie produkcją: narzędzia, techniki, metody, modele, systemy, Politechnika Poznańska. Instytut Inżynierii Zarządzania, Poznań 2008.
- [6] Hamrol A., *Strategie i praktyki sprawnego działania: lean, six sigma i inne*, Wydawnictwo Naukowe PWN, Warszawa 2015.
- [7] Komorowski J., Moczydłowska J., *Innowacyjne metody i techniki zarządzania w przedsiębiorstwie*, Wyższa Szkoła Finansów i Zarządzania, Białystok 2009.
- [8] Łazicki A. (red.), Systemy zarządzania przedsiębiorstwem: techniki Lean Management i Kaizen. Wiedza i Praktyka, Warszawa 2011.
- [9] Zymonik Z., Hamrol A., Grudowski P., *Zarządzanie jakością i bezpieczeństwem*, PWE, Warszawa 2015.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Anna Dobrowolska, anna.dobrowolska@pwr.edu.pl

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Zarządzanie Strategiczne Name in English: Strategic Management

Main field of study (if applicable): Management

Specialization (if applicable):

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	15
Number of hours of total student workload (CNPS)	90			30	30
Form of crediting	Examination			Crediting with grade	Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	3			1	1
including number of ECTS points for practical (P) classes				1	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	0,7

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

## **SUBJECT OBJECTIVES**

C1 Obtaining knowledge about strategic management

C2 Introduce instruments (strategies, models and methods), that support strategic management

C3 Acquire by students skills for practice strategic management tools

# SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Students know the idea of strategic management

PEU\_W02 Knowledge about variety of strategies

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a strategy

Relating to skills:

PEU\_U01 Student is able to seek and interpret knowledge of strategic management

Relating to social competences:

umber of hours
2
2
2
2
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2
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Sem 8	Strategy implementation	2
	Total hours	15

- N1. Multimedia performance
- N2. Reports
- N3. Selected statistical data

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the student activity by checking list of presence (lecture, seminar, project)
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Estimation the knowledge by exam, preparing the project and seminar performance
F3	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, project, seminar)

P = 0.25F1 + 0.5F2 + 0.25F3

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [[1] Gierszewska G., Olszewska B., Skonieczny J., **"Zarządzanie strategiczne dla inżynierów"** PWE Warszawa 2013
- [2] **Zarządzanie strategiczne. Systemowa koncepcja biznesu**, pod red. M. Moszkowicza, PWE Warszawa 2005

## SECONDARY LITERATURE:

- [1] Obłój K., "Pasja i dyscyplina strategii" Wydawnictwo Poltex 2010
- [2] Krawiec F., "Zarządzanie strategią firmy", Difin, Warszawa2011
- [3] Świda A., "Strategic Management", Wroclaw University of Technology, Wrocław 2011
- [4] "O strategii" Harvard Business Reviev Polska 2012
- [5] Gierszewska G., Romanowska M., "Analiza strategiczna", PWE Warszawa 2009

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zespół ds. strategii: dr inż. Piotr Kubiński, <u>piotr.kubinski@pwr.edu.pl</u>; dr inż. Jan Skonieczny; jan.skonieczny@pwr.edu.pl; dr inż. Adam Świda <u>adam.swida@pwr.edu.pl</u>;

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name in Polish: Zarządzanie wartością przedsiębiorstwa

Name in English: Value Based Management Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0043

Group of courses: NO

_					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	90			60	
Form of crediting	Examination			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	3			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of methods of time value of money calculation
- 2 Knowledge of the basic financial statements
- 3 Ability to perform simple mathematical calculations

## **SUBJECT OBJECTIVES**

- C1 Concept of organization value and the factors influencing the value
- C2 Understanding the purpose and function of the organization valuation
- C3 Knowledge of methods of organization valuing and use them in the management process

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 knows the objectives and functions of the valuation

PEU\_W02 knows methods of company valuation

PEU\_W03 knows the tools of value pricing and their use in management

relating to skills:

PEU\_U01 understand the objectives of the company value pricing

PEU\_U02 can use assets valuation methods to company valuation

PEU\_U03 can develop a financial model and prepare a company value by income methods,

# including DCF

relating to social competences:
PEU\_K01 Is conscious the role of company value in the economy

Lectures				
Lec 1 Introduction	n. The concept of value and the company value		2	
Lec 2 The object:	ives and functions of the pricing process		2	
Lec 3 Classificati	on of the factors of values		2	
Lec 4 Classificati	on of methods of pricing		2	
Lec 5 Assets and	Comparative Methods		2	
Lec 6 Income me	5 Income methods 2		2	
Lec 7 Value base	d management process	2		
Lec 8 test		1		
Total hours	S		15	
	Project		Number of hours	
Proj 1 Introduct	ion		2	
Proj 2 Valuation	n of the selected company by assets method		6	
Proj 3 Valuation	n of the selected company by DCF method		6	
Proj 4 Presentat	ion of results		1	
Total hou	ırs		15	
	TEACHING TOOLS USED			

- N2. Problems resolving
- N3. Computational exercises

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEK_W03, PEU_U01 ÷ PEK_U03, PEU_K01	Exam
Pr1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Project evaluation
P1		

## PRIMARY LITERATURE:

- [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa, 1995.
- [2] ICKIEWICZ J., Strategia finansowania przedsiębiorstwa, Poltext, Warszawa, 1993.
- [3] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [4] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

## SECONDARY LITERATURE:

- [1] [JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting, AE, Wrocław 1994.
- [2] Pluta W., Strategie inwestowania, Wyd. PLACET, Warszawa, 1995.
- [3] Levy H., Sarnat M., *Capital investment and Financial Decisions*, Prentice Hall, Hrertforshire, 1994
- [4] LUMBY S., *Investment Appraisal and Financial Decisions*, London, Chapman & Hall, 1996
- [5] Cwynar A., Systemy VBM i zysk ekonomiczny : projektowanie, wdrażanie, stosowanie, 2010
- [6] Damodaran A., Finanse korporacyjne : teoria i praktyka 2007

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Zespołami Ludzkimi

Name of subject in English: Team management Main field of study (if applicable): Management

Specialization (if applicable):

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0106

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٠,,,				0,7

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Completed the course "Psychology in management"

#### **SUBJECT OBJECTIVES**

- C1 Gaining knowledge about the principles of group functioning
- C2 Understanding the role of the leader in the group
- C3 Acquiring knowledge about the possibilities of using HRM tools for group management
- C4. Acquiring the ability to manage a task group

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student knows the basic principles of group functioning

PEU W02 Student knows what team management is like

relating to social competences:

PEU\_K01 Is able to set priorities in own work and in cooperation with others, is able to interact and work in a group

PEU\_K02 Is able to influence the members of the group in order to perform the task effectively

PEU\_K03 Apply adequate motivational and communication tools in the work of a leader

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Why are groups so important for everyone?	1
Lec 2	The process of group formation and group dynamics	2
Lec 3	Authority and leadership	2
Lec 4	The role of the leader in the group	2
Lec 5	Composing teams by a leader	2
Lec 6	The use of HRM tools for effective group management	2
Lec 7	Social identity, intergroup attitudes	2
Lce 8	Final test and summary	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction. Features of an effective leader	1
Sem 2	Identifying your strengths in team roles	2
Sem 3	Team work simulation - leader A	2
Sem 4	Team work simulation – leader B	2
	Team work simulation – leader C	2
Sem 5	Town World Still S	
	Team work simulation – leader D	2
Sem 6		2 2
Sem 6 Sem 7	Team work simulation – leader D	

# N1. Lecture

- N2. Group exercises
- N3. Simulations
- N4. Team work

# N5. Discussion of problems and results of works N6. Presentation of reports prepared by students EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

(during semester), P –	number	Way of evaluating learning outcomes achievement			
concluding (at semester end)					
	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEU_K02	Oral feedback			
groups	PEU_W01- PEU_W02 PEU_U01 PEU_K01-PEK_K02	Oral feedback. Work evaluation			
C Student analytical report, final test					

## PRIMARY AND SECONDARY LITERATURE

# **PRIMARY LITERATURE:**

- 1. Belbin, M. (2009). Zespoły zarządzające. Sekrety ich sukcesów i porażek. Warszawa: wyd. Kluwer
- 2. Lencioni P. (2016). Pięć dysfunkcji pracy zespołowej. Gdańsk: GWP
- 3. Duhigg Ch. (2016). Mądrzej, szybciej, lepiej. Warszawa: PWN
- 4. Kożusznik, B. (2005). Wpływ społeczny w organizacji. Warszawa: PWE

# **SECONDARY LITERATURE:**

- 1. Cialdini R. (2016). Wywieranie wpływu na ludzi. Teoria i praktyka. Gdańsk: GWP
- 2. Stephan, W., Stephan, C. (2007). Wywieranie wpływu przez grupy. Gdańsk: GWP

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska <u>anna.borkowska@pwr.edu.pl</u>

<sup>\*</sup>delete if not necessary

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie zmianą i projektem Name of subject in English: Change and project management

Main field of study (if applicable): Management

Specialization (if applicable): Business Process Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0084

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	
Number of hours of total student workload (CNPS)	30			60	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			2	
including number of ECTS points for practical (P) classes				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1			0,7	

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basics of management
- 2. Concepts of management

#### SUBJECT OBJECTIVES

The acquisition of basic knowledge, taking into account:

- C1. essence of project management
- C2. differences between the project and process approach
- C3. essence of change management
- C4. intervention models used in the change management

The acquisition of basic skills to:

- C5. identify management problems and issues in the organization,
- C6. formulating and matching solutions for the management and substantive issues in the organization,
- C7. analysis and evaluation of selected characteristics of the organization.

#### SUBJECT LEARNING OUTCOMES

## relating to knowledge:

- PEU\_W01 has a basic knowledge of project management
- PEU\_W02 identifies the primary sources of resistance to change
- PEU\_W03 has a basic knowledge of organizational development
- PEU\_W04 has extended knowledge of the methods used in the change management

## relating to skills:

- PEU\_U01 can choose a basic level, justify and apply the methods and techniques to identify, analyze and solve complex management problems and issues in the organization
- PEU\_U02 at a basic level can formulate solutions to complex management problems and issues in the organization
- PEU\_U03 at a basic level can analyze and evaluate the objectives, features and elements of the organization
- PEU\_U04 is able to identify and analyze common problems of management

# relating to social competences:

- PEU\_K01 is aware of the need to develop knowledge and skills in the organization and management science
- PEU\_K02 is aware that the work of a manager is to continuously identify, analyze and resolve problems in organizations
- PEU\_K03 is prepared to communicate, persuade and defend their views

PROGRAMME CONTENT			
	Lectures	Number of hours	
Lec 1	What is the project	2	
Lec 2	Fundamentals of project management	2	
Lec 3	Fundamentals of project management	2	
Lec 4	The project organization	2	
Lec 5	Implementation barriers of project management	2	
Lec 6	The change in the organization and the resistance to change	2	
Lec 7	Overcoming resistance to change	2	
Lec 8	Organizational development	2	
Lec 9	Leadership and change management	2	
Lec 10	Intervention methods	2	
Lec 11	Systemic change management methods	2	
Lec 12	Analysis of corporate culture	2	
Lec 13	Organizational culture change	2	
Lec 14	Critic of organizational development	2	
Lec 15	From organizational development to organizational learning	2	
	Total hours	30	
	Project	Number of hours	
Proj 1 I	dentification of organizational change in a selected company	2	

Proj 2	Stakeholder analysis of organizational change	2
Proj 3	3 Analysis of corporate culture	
Proj 4	j 4 Establishment of change management guidelines 2	
Proj 5	The choice of change management intervention method	2
Proj 6	Development and discussion of change management plan	2
Proj 7	pj 7 Development and discussion of change management plan 2	
Proj 8	Development and discussion of change management plan	1
	Total hours	15

- N1. Traditional lecture with multimedia presentations
- N2. Questions to students during lecture
- N3. Discussion of selected issues
- N4. Self-analysis and evaluation of selected aspects of the organization
- N5. Self-study: classes preparation and final assessment preparation
- N6. Project prepared by students

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P	PEU_W01 PEU_W02 PEU_W03 PEU_W04	Credit in the form of a written test
P	PEU_U01 PEU_U02 PEU_U03 PEU_U04 PEU_K01 PEU_K02 PEU_K03	Assessment of developed solutions regarding the analysis and evaluation of the chosen organization

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] H. Kerzner, *Zarządzanie projektami. Studium przypadków*, One Press Helion, Warszawa 2005.
- [2] G.R. Heerkens, Jak zarządzać projektami, Wydawnictwo RM, Warszawa 2003.
- [3] N. Minus, Zarządzanie projektami, Helion, Gliwice 2002.
- [4] H. Brandenburg, Zarządzanie projektami, Wyd. AE Katowice, Katowice 2002.

- [5] F. Krawiec, Zarządzanie projektem innowacyjnym produktu i usługi, Difin, Warszawa 2000.
- [6] C. Burton, N. Michael, Zarządzanie projektem, Astrum, Warszawa 1999.
- [7] D.K. Carr, K.J. Hard, W.J. Trahant, Zarządzanie procesem zmian, PWN, Warszawa 1998.

# SECONDARY LITERATURE:

- [1] M. Bratnicki, *Zarządzanie zmianami w przedsiębiorstwie*, Wyd. AE Katowice, Katowice 1998.
- [2] W. Daniecki, Strategie zmian, WSPS "Academica", Warszawa 2004.
- [3] J.P. Kotter, D.S. Cohen, *Sedno zmian*, Helion, Gliwice 2008.
- [4] J.P. Kotter J. i inni, *Przywództwo w okresie zmian*, Helion, Gliwice 2007.\
- [5] C. Liz, *Zarządzanie zmianą*, Gebethner i Ska, Warszawa 1997.
- [6] J. Majchrzak, Zarządzanie zmianami w przedsiębiorstwie, Wyd. AE Poznań, Poznań 2002.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, <u>robert.kaminski@pwr.edu.pl</u>

#### SUBJECT CARD

Name of subject in Polish: Zintegrowane systemy informatyczne zarządzania Name of subject in English: Integrated Management Information Systems

Main field of study (if applicable): Management Specialization (if applicable): all specialization

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0036

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	60		30		
Form of crediting	Examination		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4		0,7		

<sup>\*</sup>delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

- 1. theory of organisation and management
- 2. essentials of enterprise management
- 3. basics of computer science

## SUBJECT OBJECTIVES

- C1 Knowledge of integrated management information systems (IMIS)
- C2 Ability to use ERP IMIS
- C3 Knowledge of the implementation of IMIS

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 - knowledge of MIS classifications

PEU\_W02 – knowledge of rules of MIS integration

PEU\_W03 – knowledge of basic functions in business areas of MIS

PEU\_W04 – knowledge of MIS history and new approaches

PEU\_W05 – knowledge of the MIS implementation in the organization

PEU\_W06 – knowledge of rules of selecting MIS

PEU\_W07 – knowledge of human aspects of the MIS implementation

PEU\_W08 – knowledge of gathering requirements before the MIS implementation (e.g. business process modeling)

PEU\_W09 – knowledge of risk factors in the MIS implementation

## relating to skills:

PEU\_U01 – ability to classify a MIS

PEU\_U02 – ability to find differences between MRP – MRPCL – MRPII – MRPIII – ERP – ERPII

PEU\_U03 – ability to plan implementation of MIS

PEU\_U04 – ability to find and minimalize risk factors during the MIS implementation

PEU\_U05 – ability to set goals for the MIS implementation

PEU\_U06 – ability to plan trainings for users of MIS

PEU\_U07 – ability to analyze functionality of ERP system

PEU\_U08 – ability to model business process

PEU\_U09 – ability to prepare and present own approach to the MIS implementation

# relating to social competences:

PEU\_K01 – ability to searching for information and analyzing

PEU\_K02 – developing ability to think independently and creatively

PEU\_K03 – understand the importance of business requirements in the design and implementation of information systems

PEU\_K04 – developing entrepreneurial thinking

PEU\_K05 – developing the skills of group working

PROGRAMME CONTENT				
	Form of classes - lecture			
Lec 1	Introduction	2		
Lec 2	Management Information Systems	2		
Lec 3	Typology of informational systems at the angle of primary criterions. Types MPR II/ERP.	2		
Lec 4	APICS standards (MRP, MRPII)	2		
Lec 5	Classification of integrated systems according to APICS standards (MRP, MRP-CL, MRPII, MRPII+/MRPIII)	2		
Lec 6	ERP systems	2		
Lec 7	ERP II systems	2		
Lec 8	CRM and PRM systems	2		
Lec 9	Service Oriented Architecure (SOA) and mobile technologies in management	2		
Lec 10	General characteristics of management information system sets	2		
Lec 11	Informatics strategies of enterprise management	2		
Lec 12	Choosing and implementation of system set	2		
Lec 13	Training and coaching during IMIS implementation	2		
Lec 14	Implementation risks	2		
Lec 15	Conclusion	2		
	Total hours	30		
	Form of classes - laboratory	Number of hours		
Lab 1 In	stroduction to ERP system	2		
	eneral settings	2		
Lab 3 C	alculation of product's costs	2		

Lab 4	Purchasing orders (PO)	2
Lab 5	Work orders (WO)	2
Lab 6	MRP planning	2
Lab 7	Analysis of selected area of ERP system	2
Lab 8	Conclusion	1
	Total hours	15

- N1. Traditional lecture
- N2. Using MIS tool
- N3. Work with the teacher
- N4. Self-learning for labs
- N5. Self-learning for lectures

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W09 PEU_U01–PEU_U06 PEU_K01 PEU_K03	test
F2	PEU_U07 -PEU_U09 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the seminar and lab work

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Jerzy Kisielnicki: MIS Systemy informatyczne zarządzania, PLACET, 2009
- [2] Zbigniew Klonowski: Systemy informatyczne zarządzania przedsiębiorstwem : modele rozwoju i właściwości funkcjonalne, Oficyna Wydawnicza Politechniki Wrocławskiej, 2004
- [3] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [4] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [5] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

## SECONDARY LITERATURE:

- [1] Czasopismo Computerworld
- [2] Czasopismo Teleinfo
- [3] Materiały szkoleniowe dostawcy wybranego systemu klasy ERP

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Analiza finansowa decyzji biznesowych Name in English: Financial analysis of business decisions

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Level and form of studies: II level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0026

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade *		
For group of courses mark (X) final course					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7		0,7		

\*delete as applicable

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge of corporate finance and corporate governance.
- 2. Ability to use Microsoft Office.

#### SUBJECT OBJECTIVES

- C1 The aim of the course is to acquire basic knowledge of financial analysis
- C2 The student should possess the ability to conduct a financial analysis based on financial reporting
- C3 Students will use MS Office as a tool to support the process of financial analysis

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEK\_W01 He/she can distinguish the main approaches to financial analysis.

PEK\_W02 He/she can determine the knowledge necessary for proper financial analysis relating to skills:

PEK\_U01 He/she can perform financial analysis. After completing the course the student should be able to analyze basic financial statements derive analytical conclusions, know the basic tools useful in financial analysis.

PEK\_U02 He/she can take advantage of financial reporting as a source of knowledge relating to social competences:

PEK\_K01 He/she is aware of the complexity of socio-economic systems and a willingness to multilateral overview of the impact of business decisions and management

PEK\_K02 He/she is focused on independent and critical search and selection methods, techniques and tools to support organizational knowledge management

	PROGRAMME CONTENT		
	Form of classes - lecture Number of hou		
Lec 1	Introduction. The scope and structure of the lecture	2	
Lec 2	Financial statements as source of analytical information	2	
Lec 3	International financial statements	2	
Lec 4	The main problems of financial analysis	4	
	The fundamental techniques and methods applied in financial analysis	2	
Lec 6	Evaluation of liquidity	2	
Lec 7	Profitability analysis	2	
Lec 8	Assets and equity analysis.	2	
Lec 9	Computer software for financial analysis	4	
Lec 10	Financial spreadsheets	2	
Lec 11	Decision suport systems	2	
Lec 12	Computerized financial systems	4	
Total		30	

	Form of classes - laboratory	
La1	The aim and the structure of the laboratory. Selection of a firm	2
La2	Liquidity analysis in a static and dynamic form	4
La3	Profitability analysis in a relational and unrelational form	4
La4	Analysis of assets and equity position. Analysis of the firm's market position.	4
La5	Students presentations	2
	Total	15

- N1. Laptop connected to the video projector
- N2. MS Office 2010 software
- N3. Practice and computer utilities problem exercises
- N4. Preparation of reports
- N5. Multimedia lecture
- N6. Preparation of a written statement

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating educational effect achievement		
P	PEU_W01, PEU_W02, PEK_K01, PEU_K02,	exam		
F1	PEU_U01, PEU_U02, PEU_K01, PEU_K02,	Written paper consisting laboratory and project results		
F2	PEU_U01, PEU_U02, PEU_K01, PEU_K02,	Written paper consisting laboratory and project results		
F3	PEU_U01, PEU_U02, PEU_K01, PEU_K02,	Panel discussion		
F4	PEU_U01, PEU_U02, PEU_K01, PEU_K02,	Summing up discussion		
P=F1*0,1+F2*0,3+F3*0,5+F4*0,1				

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- Radosiński E., Wprowadzenie do sprawozdawczości, analizy i informatyki finansowej, Wydawnictwo Naukowe PWN Warszawa 2011
- [2] Radosiński E., Systemy informatyczne w dynamicznej analizie decyzyjnej, Wydawnictwo Naukowe PWN, Warszawa 2013
- [3] Sierpińska M. Jachna T., Ocena przedsiębiorstwa według standardów światowych, Wydawnictwo Naukowe PWN, 2005
- [4] Nowak E., Analiza sprawozdań finansowych, PWE Warszawa 2005

#### SECONDARY LITERATURE:

- [1] Bednarski L., Analiza finansowa w przedsiębiorstwie, PWE Warszawa 2006
- [2] Bednarski L. i in., Analiza ekonomiczna przedsiębiorstwa, Wyd. Akademii Ekonomicznej we Wrocławiu, 2003.
- [3] Brigham E.F., Houston J.F., Podstawy zarządzania finansami, PWE Warszawa, 2005 r.
- [4] Helfert E. A., Techniki analizy finansowej, PWE Warszawa 2004.
- [5] Machała R., Praktyczne zarządzanie finansami firmy, Wydawnictwo Naukowe PWN, Warszawa 2004.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Joanna Kott, joanna.kott@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Badania Operacyjne Name of subject in English: Operations Research Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behavior and Decisions

Profile: academic

Level and form of studies: 2nd level, uniform magister studies, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0001

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	120		90		
Form of crediting	Examination		crediting with grade		
For group of courses mark final course with (X)					
Number of ECTS points	4		3		
including number of ECTS points for practical (P) classes			3		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	!		1,4		

\*delete as applicable

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge in algebra and logic.
- 2. Basic skills in computer programming.

#### SUBJECT OBJECTIVES

- C1. Showing students the basic optimization problems such as: linear programming, integer programming and network flow problems; indication of the practical applications of these problems.
- C2. Showing students the basic methods of solving the above problems.
- C3. Acquisition by students of the ability to identify decision variables, input data and objectives in practical decision situations and build a mathematical programing model.
- C4. Acquisition by students of the ability to interpret the solutions of the optimization models.
- C5. Presenting the software for solving optimization problems.

## SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W01 - Has specialist knowledge of the basic methods used in operational research.

relating to skills:

PEU\_U01 - Is able to apply operations research methods as a tool supporting advanced decision-

making analyzes.

PEU\_U02 - Is able to use specialized software for building and solving optimization models.

# PROGRAM CONTENT

PROGRAM CONTENT  Lectures		
Lec 1	Operations research methodology; linear programming problem and its applications.	1
Lec 2	Graphical method and the simplex algorithm for linear programming.	2
Lec 3	The simplex algorithm and sensitivity analysis for linear programming.	2
Lec 4	Integer programming and its applications.	2
Lec 5	Branch and bound algorithm for integer programming.	2
Lec 6	Basic network problems, part I (the shortest path and maximum flow problems).	2
Lec 7	Basic network problems, part II (the transportation problem).	2
Lec 8	Multicriteria programming – applications and solution methods.	2
	Total hours	15
	Laboratory	Number of hours
Lab 1	Introduction. Presentation of optimization software. Graphical method of solving linear programming problems.	2
Lab 2	Building and solving linear programming models for practical problems.	2
Lab 3	Building and solving linear programming models for practical problems.	2
Lab 4	Building and solving linear programming models for practical problems.	2
Lab 5	Building and solving linear programming models for practical problems.	2
Lab 6	Solving linear programming problems by using the simplex algorithm. Sensitivity analysis in linear programming.	2
Lab 7	Building and solving integer programming models for practical problems.	2
Lab 8	Building and solving integer programming models for practical problems.	2
Lab 9	Building and solving integer programming models for practical problems.	2
Lab 10	Solving integer programming problems using the branch and bound algorithm.	2
Lab 11	Building and solving network flow models for practical problems.	2
Lab 12	Building and solving network flow models for practical problems.	2
Lab 13	Building and solving network flow models for practical problems.	2
Lab 14	Preparation for the test.	2
Lab 15	Written test.	2
	Total hours	30

# TEACHING TOOLS USED

- N1. Presentation
- N2. Solving tasks
- N3. Using optimization software

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P	PEU_W01	Examination
P	PEU_U01 PEU_U02	Written test
P=1		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] H. Taha. Operations research. An introduction. Prentice Hall 2011
- [2] F. S. Hiller, G. J. Liberman. Introduction to operations research. Mc Graw Hill 2003
- [3] W. L. Winston. Operations research: applications and algorithms. PWS-KENT Publishing Company 1987
- [4] H. Wagner. Badania operacyjne. PWE Warszawa 1980.

#### SECONDARY LITERATURE:

- [1] H. P. Williams. Model building in mathematical programming. Wiley 1990.
- [2] R.K. Ahuja, T. L. Magnanti, J. B. Orlin. Network flows: theory, algorithms and applications. Prentice Hall, Inc., 1993
- [3] R.S. Garfinkel, G. L. Nemhauser. Programowanie całkowitoliczbowe. PWN, 1978
- [4] M. S. Bazaraa, J. J. Jarvis, H. D. Sherali. Linear programming and network flows. Wiley 2010.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Kasperski, adam.kasperski@pwr.edu.pl

#### SUBJECT CARD

Name in Polish: Controlling Name in English: Controlling

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0027

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management and the fundamentals of accountancy.

#### **SUBJECT OBJECTIVES**

- C1 To provide the students with the fundamental knowledge about the essence of controlling.
- C2 To provide the students with the knowledge about the functional and organizational solutions of controlling.
- C3 To provide the students with the knowledge about the essence of basic tools of controlling as well as the scope of their use.
- C4 Shaping and developing the ability of evaluation the achievements of the organization in conjunction of the implementation of controlling.
- C5 Shaping and developing the ability of evaluation and improvement of existing or designing new functional, organizational and instrumental solutions of controlling in chosen organization.
- C6 Shaping the competences of planning, initiating and implementing the changes in the organization.
- C7 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

#### SUBJECT EDUCATIONAL EFFECTS

#### relating to knowledge:

- PEU\_W01 Has a knowledge abort the essence of controlling. Understands the importance of restructuring processes related to the implementation of controlling in the organization.
- PEU\_W02 Knows the components and functions of controlling. Has a knowledge about the controlling concepts.
- PEU\_W03 Knows the organizational solutions of controlling, including the solutions relating to the controllers and responsibility centers . Knows the factors influencing the formation of organizational solutions of controlling.
- PEU\_W04 Has knowledge about the tools of controlling, including the controlling profit and loss account, budgeting, information and reporting system, methods of measurement and evaluation of organization performance.

#### relating to skills:

- PEU\_U01 Can evaluate the organization performance relating to the implementation of controlling. PEU\_U02 Can evaluate and improve the existing or design the new solutions of controlling relating to the concept of controlling, controllers (including them responsibilities, rights and liabilities) and responsibility centers.
- PEU\_U03 Can evaluate and improve the existing or design the new solutions of controlling relating to the chosen tools of controlling.

#### relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction, overview of the lecture.	1
Lec 2	The essence and the features of controlling. Concepts of controlling.	2
Lec 3	Components and functions of controlling.	1
Lec 3	Requirements for controlling implementation and functioning. Factors influencing the shape of solutions of controlling.	1
Lec 4	Organization of controlling. Defining the controlling responsibility centers.	2
Lec 5	Profit and loss account in controlling.	2
Lec 6	Budgeting in controlling.	2
Lec 7	Information and reporting system in controlling.	2
Lec 8	Summary (controlling developement trends). Colloquium.	2
	Total hours	15
	Classes	Number of hours
Proj 1	Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams. Distribution of the survey questionnaires and discussion on it. Detailed explanation of the task 1: the method of the general characteristics of the organization, including the method of presentation of basic information about the organization, its organizational structure, human potential, and identification of its environment.	2

	TEACHING TOOLS USED	
	Total hours	15
Proj 7	Summary of project. Final assessment.	1
Proj 6-7	Presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
Proj 5	Explanation of the presentation of the project. The consultation of the task 4: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 4	Detailed explanation of the task 4: formation (b) or improvement (a) instrumental solutions of controlling for the chosen organization (including solutions relating to Profit and loss account in controlling, budgeting, information and reporting system in controlling and methods of measurement and evaluation of organization performance). The consultation of the task 3: work in project teams - consulting the substantive issues, the assessment of students progress.	2
	Detailed explanation of the task 3: formation (b) or improvement (a) organizational solutions of controlling for the chosen organization (including solutions relating to the controlling concept, its organization and responsibility centers). The consultation of the task 2: work in project teams - consulting the substantive issues, the assessment of students progress.	2
Proj 2	Detailed explanation of the task 2: in the diagnosis of existing solutions of controlling in analyzed organization (for two situations: a) when controlling is implemented in the organization, and b) if controlling solutions are not implemented in the organization). Declaration of the chosen object. Consultation of the task 1: work in project teams - consulting the substantive issues, evaluation of student progress.	2

### N1. Traditional lecture with multimedia presentations

- N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation N6. A written report an analysis of the case study

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04	Colloquium.
F2	PEU_U01, PEU_U02 PEU_U03, PEU_K01 PEU_K02, PEU_K03	Project of controlling solutions (written report).
F3	IPHI I III3 PHI KIII	Multimedia presentations relating to controlling solutions prepared by students
F4	PEU_U01, PEU_U02 PEU_U03, PEU_K01	Activity on the project. Participation in the discussion.

PEU	K02	PEU	K03
1 20_	_1102,	ILU_	_1203

P(lecture)=F1

P(project)=0,7\*F2+0,2\*F3+0,1\*F4

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- 1. Marciniak S., Controlling. Teoria, zastosowania, Difin, Warszawa 2008.
- Vollmuth H. J., Controlling. Planowanie, kontrola, kierowanie, Agencja Wydawnicza "Placet", Warszawa 2000.
- Nowosielski S. Centra kosztów i centra zysku w przedsiębiorstwie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2001.
- Goliszewski J., Controlling. Koncepcja, zastosowania, wdrożenie, Oficyna Wolters Kluwer business, Warszawa 2015.
- 5. Kuc B.R., Kontroling dla menedżerów, wyd. Helion, Gliwice 2011.
- Bieńkowska A., Kształtowanie rozwiązań i wzorce controllingu w organizacji, Oficyna Wydawnicza PWr, Wrocław 2015.

#### SECONDARY LITERATURE:

- 1. Controlling w działalności przedsiębiorstwa, pod red. E. Nowaka, PWE, Warszawa 2004.
- 2. Sierpińska M., Niedbała B. Controlling operacyjny w przedsiębiorstwie, PWN, Warszawa 2003.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, <u>agnieszka.bienkowska@pwr.wroc.pl</u> in cooperation:

Anna Zabłocka-Kluczka, <u>anna.zablocka-kluczka@pwr.wroc.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Ekonomia Menedżerska Name of subject in English: Managerial Economics Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory
Subject code: W08ZZZ-SM0002

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	30			
Number of hours of total student workload (CNPS)	60	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	2	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	1,4			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic economic terms related to conducting a business in accordance with effects of education in engineering faculty like: basic knowledge related to conduct a business and fundamental rights to create and development individual enterprise.

#### **SUBJECT OBJECTIVES**

- C1 Learning and understanding the place of the economics in the economic sciences system as well as learning and understanding economic research specification.
- C2 Learning and understanding key economic problems of managerial decisions.
- C3. Teaching students about the terms and economic laws as well as rules of economic analysis in relation to problems and managerial decisions.
- C4 Teaching students about the reasons of economy events and their effects on the market economy and other types of economies.
- C5 Teaching skills to identify and analyze micro- and macroeconomic environmental factors of an enterprise in the substantial and regulatory dimensions in relation to the implemented economic policy.

- C6. Teaching students about the basic economic terms and laws as well as about market economy institutions and their functions in the economy system.
- C7 Teaching skills to calculate basic economic indexes as well as skills needed for their correct interpretation.
- C8 Teaching skills to interpret and to make cause-and-effect conclusions on the basis of the observed market phenomena by using the studied definitions, laws and relationships in economics.
- C9 Creating skills to make decisions based on economic analysis especially managerial analysis.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

A student should:

PEU\_W01 know about the place of economics in sciences system and its substantial and methodological relation to other sciences;

PEU\_W02 know conditions, terms and economic laws connected with producer (provider) decisions on the different types of market structures,

PEU\_W03 know basic types of economies and types, aims and functions of fundamental institutions in market economy,

PEU\_W04 know basic tools and regulations on sectorial (microeconomic) and total (macroeconomic) levels as well as their influence on the decisions of key subjects in economy in the context of selected economic schools.

PEU\_W05 know the scope of using marginal analysis in economics and in the managerial decision process.

PEU\_W06 know basic macroeconomic terms, including indicators in the international accounts system; know the influence of macroeconomic factors on an enterprise environment.

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relating to skills:

A student should:

PEU\_U01 possess skills to identify, understand and analyze microeconomic environment factors and their influence on market structure and economic decisions of market subjects (producers/providers), including to define how the economic tools of micro- and macroeconomic policy influence market mechanism and economic decisions of market participants,

PEU\_U02 be able to calculate basic economic relationships (including indexes) and be able to interpret them.

PEU\_U03 be able to use the marginal analysis to make managerial economic decisions, especially in relation to production optimization in a company and to use production factors,

PEU\_U06 be able to use the economic terms in the correct way; be able to choose information sources and to use them.

. . .

relating to social competences:

A student should:

PEU\_K01 understand the necessity of independent and critical evaluation of their knowledge and skills; be ready to seek the knowledge and extend it individually and to improve their skills,

PEU\_K02 be able to foresight the results of decisions taken,

PEU\_K03 be able to think and act in entrepreneurial way and be able to judge economic choices according to the economic account.

PEU\_K04 be able to dispute about possible practical solutions for economy on the micro- and macroeconomic scale; be able to justify their opinion by using known definitions and economic laws,

## PROGRAM CONTENT Lectures Number of hours

Economy process and the decision problem in economics - the rationality of action. Private and public decisions in economics approach. Production possibility curves (type of choice: "something for something") and opportunity cost.	Lec 1	Organizational lecture. Economics as a science. Economics and business. Basic terms connected with Economics and economy.	2
tools according to selected economic schools.  Market and its components. Market mechanism. Producer surplus and consumer surplus.  Demand analysis. Elasticity of demand and its types. Company total revenue and elasticity of demand. Demand and consumer preferences.  Demand analysis. Elasticity of demand and consumer preferences.  Demand decision in short-run in company by using marginal analysis.  Demand decision in long-run (marginal analysis).  Demand decision in long-run (marginal analysis).  Demand decision in uncertainty conditions.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions taken by an oligopolies. The game theory.  Dispopoly. Strategic decisions in uncertainty conditions. Asymmetric information and agency theory.  Dispopoly. Strategic decisions in uncertainty conditions.  Dispopoly. Strategic decisions in uncertainty conditions.  Dispopoly. Strategic decision in company or case study.  Dispopoly. Strategic decision in company or case study.  Dispopoly. Strategic decision decision in company or case study.	Lec 2	Economy process and the decision problem in economics - the rationality of action. Private and public decisions in economics approach.  Production possibility curves (type of choice: "something for something")	2
consumer surplus.  Lec 5 Demand analysis. Elasticity of demand and its types. Company total revenue and elasticity of demand. Demand and consumer preferences.  Lec 6 Production and production function. Optimal use of production factors.  Lec 7 Benefits, costs and decisions in economic approach. Book and economic account. Economic profit: zero profit point, above-normal profit. Costs in short-run.  Lec 8 Making optimal decision in short-run in company by using marginal analysis. Decisions in perfect competition conditions.  Lec 9 Making optimal decision in long-run (marginal analysis).  Lec 10 Market structure. Comparative analysis.  Lec 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec 14 Macroeconomic policy. Basic macroeconomic indices.  Lec 15 Written test  Total hours  Classes  Classes  Classes  Classes  Number of hours  Classes  Number of hours  Classes  Authority Price mechanism. Analysis of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study, exercises.  La Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  La Short-run costs in enterprise. Short-run analysis – exercises.  Short-run costs in enterprise. Short-run analysis – exercises.  Short-run costs in enterprise. Short-run analysis – exercises.  La Optimal level of production in short run – exercises.  Deptimal level of production in short run – exercises.  Deptimal level of production in short run – exercises.  Deptimal level of production in short run – exercises.  Structure of market (oligopoly and monopoly), and decision in company—	Lec 3	Types of economy and used regulation tools and government interventional	2
revenue and elasticity of demand. Demand and consumer preferences.  2.ec. 6 Production and production function. Optimal use of production factors.  2.ec. 7 Benefits, costs and decisions in economic approach. Book and economic account. Economic profit: zero profit point, above-normal profit. Costs in short-run.  2.ec. 8 Making optimal decision in short-run in company by using marginal analysis. Decisions in perfect competition conditions.  2.ec. 9 Making optimal decision in long-run (marginal analysis).  2.ec. 10 Market structure. Comparative analysis.  2.ec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  2.ec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  2.ec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  2.ec. 14 Macroeconomic policy. Basic macroeconomic indices.  2.ec. 15 Written test  2.ec. 15 Written test  2.1 Organizational Class. Basic economic terms – source text  2.1 Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study, exercises.  2.1 Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  2. Short-run costs in enterprise – case study.  3. Short-run costs in enterprise – case study.  3. Short-run costs in enterprise – case study.  4. Production function. The choice of optimal technology – long-run analysis – exercises.  2. Production function. The choice of optimal technology – long-run analysis – exercises.  2. Dottimal level of production in short run – exercises.  2. Production function. The choice of optimal technology – long-run analysis – exercises.  3. Spructure of market – case study, and decision in company – exercises.	Lec 4		2
Lec. 7 Benefits, costs and decisions in economic approach. Book and economic account. Economic profit: zero profit point, above-normal profit. Costs in short-run.  Lec. 8 Making optimal decision in short-run in company by using marginal analysis. Decisions in perfect competition conditions.  Lec. 9 Making optimal decision in long-run (marginal analysis).  Lec. 10 Market structure. Comparative analysis.  Lec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Total hours  Classes  Classes  Number of hours  Classes  Number of hours  Classes  Number of hours  Classes  Arket mechanism of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study, exercises.  Cl 4 Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl 5 Short-run costs in enterprise—case study.  Short-run costs in enterprise—case study.  Lec. 15 Short-run costs in enterprise—case study.  Lec. 16 Short-run costs in enterprise. Short-run analysis - exercises.  Lec. 17 Production function. The choice of optimal technology – long-run analysis – exercises  Lec. 18 Structure of market – case study, and decision in company— exercises.	Lec 5	* * * * * * * * * * * * * * * * * * * *	2
account. Economic profit: zero profit point, above-normal profit. Costs in short-run.  Lec. 8 Making optimal decision in short-run in company by using marginal analysis. Decisions in perfect competition conditions.  Lec. 9 Making optimal decision in long-run (marginal analysis).  Lec. 10 Market structure. Comparative analysis.  Lec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Classes  Classes  Classes  Classes  Number of hours  Classes  Number of hours  Classes  Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. — case study, exercises.  Classes  Market mechanism and elasticity of demand and supply — case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl. 5 Short-run costs in enterprise— case study.  Cl. 6 Short-run costs in enterprise— case study.  Cl. 6 Short-run costs in enterprise. Short-run analysis — exercises.  Cl. 7 Production function. The choice of optimal technology — long-run analysis — exercises.  Cl. 9 Structure of market — case study, and decision in company— exercises.  Cl. 9 Structure of market — case study, and decision in company— exercises.	Lec. 6	Production and production function. Optimal use of production factors.	2
analysis. Decisions in perfect competition conditions.  Lec 9 Making optimal decision in long-run (marginal analysis).  Lec 10 Market structure. Comparative analysis.  Lec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Classes  Classes  Classes  Classes  Classes  Classes  Number of hours  Classes  Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study and exercises.  Lec. 14 Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Lec. 15 Short-run costs in enterprise—case study.  Lec. 16 Short-run costs in enterprise. Short-run analysis – exercises.  Lec. 17 Production function. The choice of optimal technology – long-run analysis – exercises  Lec. 18 Optimal level of production in short run – exercises.  Lec. 19 Structure of market – case study, and decision in company— 4	Lec. 7	account. Economic profit: zero profit point, above-normal profit. Costs in	2
Lec. 10 Market structure. Comparative analysis.  Lec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Total hours  Classes  Number of hours  Classes  Number of hours  Classes  Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. — case study, exercises.  Cl. 4 Market mechanism and elasticity of demand and supply — case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl. 5 Short-run costs in enterprise—case study.  Cl. 6 Short-run costs in enterprise. Short-run analysis — exercises.  Cl. 7 Production function. The choice of optimal technology — long-run analysis — exercises  Cl. 8 Optimal level of production in short run — exercises.  Cl. 9 Structure of market — case study, and decision in company— exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company—	Lec. 8		2
Lec. 11 Monopoly - Optimal production level and price policy. Social and economic effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Classes  Clas	Lec 9	Making optimal decision in long-run (marginal analysis).	2
effects as well as law-economic regulations.  Lec. 12 Oligopoly. Strategic decisions taken by an oligopolies. The game theory.  Lec. 13 Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  Lec. 14 Macroeconomic policy. Basic macroeconomic indices.  Lec. 15 Written test  Classes  Class	Lec 10	Market structure. Comparative analysis.	2
Risk. Decisions in uncertainty conditions. Asymmetric information and agency theory.  2	Lec. 11		2
agency theory.  2.ec. 14 Macroeconomic policy. Basic macroeconomic indices.  2.ec. 15 Written test  2. Total hours  Classes  Number of hours  Classes  Classes  Classes  Number of hours  Advantage of the condition of hours  Classes  Classes  Classes  Number of hours  Advantage of hours  Advantage of hours  Classes  Number of hours  Advantage o	Lec. 12	Oligopoly. Strategic decisions taken by an oligopolies. The game theory.	2
Total hours  Classes	Lec. 13		2
Total hours  Classes	Lec. 14	Macroeconomic policy. Basic macroeconomic indices.	2
Classes  Cla			2
Classes  Cla		Total hours	30
Basic problems of economic choices. – case study and exercises.  Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study, exercises.  Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Short-run costs in enterprise – case study.  Short-run costs in enterprise. Short-run analysis – exercises.  Production function. The choice of optimal technology – long-run analysis – exercises  Cl. 8 Optimal level of production in short run – exercises.  Structure of market – case study, and decision in company – exercises.  Structure of market (oligopoly and monopoly), and decision in company – 4			1 (4111001 01
Demand, determinants of demand. Supply, determinants of supply. Price mechanism. Analysis of demand function. – case study, exercises.  Cl 4 Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl. 5 Short-run costs in enterprise – case study.  Cl. 6 Short-run costs in enterprise. Short-run analysis – exercises.  Cl. 7 Production function. The choice of optimal technology – long-run analysis – exercises  Cl. 8 Optimal level of production in short run – exercises.  Cl. 9 Structure of market – case study, and decision in company – exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company – 4	Cl 1	Organizational Class. Basic economic terms – source text	2
mechanism. Analysis of demand function. – case study, exercises.  Cl 4 Market mechanism and elasticity of demand and supply – case study, discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl. 5 Short-run costs in enterprise – case study.  Cl. 6 Short-run costs in enterprise. Short-run analysis – exercises.  Cl. 7 Production function. The choice of optimal technology – long-run analysis – exercises  Cl. 8 Optimal level of production in short run – exercises.  Cl. 9 Structure of market – case study, and decision in company – exercises.  Cl. 9 Structure of market (oligopoly and monopoly), and decision in company – 4	C1 2	Basic problems of economic choices. – case study and exercises.	2
discussion, exercises. Limitation of market mechanism and their effects for market participants.  Cl. 5 Short-run costs in enterprise—case study.  Cl. 6 Short-run costs in enterprise. Short-run analysis - exercises.  Cl. 7 Production function. The choice of optimal technology — long-run analysis - exercises  Cl. 8 Optimal level of production in short run — exercises.  Cl. 9 Structure of market — case study, and decision in company— exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company—  4	C1 3	11 7	2
Cl. 6 Short-run costs in enterprise. Short-run analysis - exercises.  Cl. 7 Production function. The choice of optimal technology – long-run analysis – exercises  Cl. 8 Optimal level of production in short run – exercises.  Cl. 9 Structure of market – case study, and decision in company– exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company–  4	Cl 4	discussion, exercises. Limitation of market mechanism and their effects for	3
Cl. 7 Production function. The choice of optimal technology – long-run analysis – exercises  Cl. 8 Optimal level of production in short run – exercises.  Cl. 9 Structure of market – case study, and decision in company– exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company–  4	Cl. 5	Short-run costs in enterprise— case study.	1
- exercises  Cl. 8 Optimal level of production in short run – exercises.  Cl. 9 Structure of market – case study, and decision in company– exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company–  4	Cl. 6	Short-run costs in enterprise. Short-run analysis - exercises.	2
Cl. 9 Structure of market – case study, and decision in company– exercises.  Cl. 10 Structure of market (oligopoly and monopoly), and decision in company–  4	Cl. 7		2
Cl. 10 Structure of market (oligopoly and monopoly), and decision in company— 4	Cl. 8	Optimal level of production in short run – exercises.	2
Cl. 10 Structure of market (oligopoly and monopoly), and decision in company— 4	Cl. 9	Structure of market – case study, and decision in company– exercises.	2
	Cl. 10	Structure of market (oligopoly and monopoly), and decision in company—	4

Cl. 11 Written test no. 1	1
Cl. 12 Risk. Management decisions in uncertainty conditions. Capital-and-money market - basic economic terms and relationships.	2
Cl. 13 National income account – exercises; Interpretation of basic indexes connected with the economic situation.	2
Cl. 14 Inflation and the value of money in time.	1
Cl. 15 Written test	2
Total hours	30
Laboratory	Number of hours
Lab 1	
Lab 2	
Lab 3	
Lab 4	
Lab 5	
Total hours	
Project	Number of hours
Proj 1	
Proj 2	
Proj 3	
Proj 4	
Total hours	
Seminar	Number of hours
Sem 1	
Sem 2	
Sem 3	
Total hours	
TEACHING TOOLS USED	

#### Lectures

- N1. Information lectures
- N2. Multimedia presentations
- N3. Problem lectures

#### Classes

- N4. Exercises
- N5. Discussion
- N6. Homework
- N7. Self-preparation to the classes
- N8. Case studies
- N9. Short written test -10 minutes

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during	Learning outcomes number	Way of evaluating learning outcomes achievement
semester), P –		
concluding (at		
semester end)		
F1	PEU_W01÷PEU_W06	Written test with lecture
F2	PEU_W01÷PEU_W06	Activeness during classes (discussion,
	PEU_U01÷PEU_U06	homework, solving exercises)
	PEU_K01÷PEU_K04	
F3	PEU_W02	Short written test – 10 minutes
	PEU_W05	
	PEU_W06	
	PEU_U02÷PEU_U04	
F4	PEU_W02	Checking of homework
	,PEU_W04,	
	PEU_U02÷PEU_U04	
F5	PEU_W02	Written test with classes
	PEU_W04, PEU_W06,	
	PEU_U01÷PEU_U04	
	PEU_K01÷PEU_K04	
F5		
C (14) F1		

C (lecture) = F1

C (classes) = 0.20\*(F2+F3)+0.20\*F4+0.60\*F5

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Froeb Luke M., McCann Brian T., Ekonomia menedżerska, PWE, Warszawa, 2012.
- [2] Png I., Lehman D., Ekonomia menedżerska, Wolters Kluwer, Warszawa 2011.
- [3] Samuelson W. F., Marks S. G., Ekonomia menedżerska, PWE, Warszawa 1998.

#### SECONDARY LITERATURE:

- [1] Begg D., Fischer S., Dornsbuch R., Mikroekonomia, t.1, PWE, Warszawa 2007.
- [2] Czarny B., Czarny E., Bartkowiak R., Rapacki R., *Podstawy ekonomii*, PWE, Warszawa 2000 i kolejne wydania.
- [3] Friedman M., Friedman R., Wolny wybór, Kraków 1997.
- [4] Klimczak B., *Mikroekonomia*, Wydawnictwo AE im. Oskara Langego we Wrocławiu, 2006 i kolejne wydania.
- [5] *Makro- i mikroekonomia. Podstawowe problemy współczesności*, Marciniak S. (red.), Wyd. Naukowe PWN, Warszawa 2013.
- [6] Najgorsze strategie i praktyki zarządzania. Historia upadków przedsiębiorstw, praca zbior. pod red. Pindelskiego M., Oficyna Wydawnicza Szkoły Głównej Handlowej w Warszwie, Warszawa 2008.
- [7] Podstawy ekonomii, R. Milewski (red.), PWN, Warszawa 2001 i kolejne wydania.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, edyta.ropuszynska-surma@pwr.edu.pl

\*delete if not necessary

#### SUBJECT CARD

Name of subject in Polish: Ekonomiczne uwarunkowania działalności gospodarczej

Name of subject in English: Economic circumstances of making a business

Main field of study (if applicable): MANAGEMENT

Specialization (if applicable): Managerial Behaviors and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0023

Group of courses: NO\*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

\*delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has the basic knowledge of micro and macro economy
- 2. Student has the basic knowledge of civil law

#### **SUBJECT OBJECTIVES**

- C1: Expanding knowledge of economic conditions and legal regulations of conducting business activity.
- C2: To improve knowledge on the potential effects of the applied market regulation and macroeconomic policy instruments on business in terms of assessing opportunities and threats, revenues and costs.
- C3: Acquiring knowledge of trends in modern economies and the evolution of market structures and their impact on the functioning of the company and/or its business.
- C4: Acquiring social competence to conduct discussions and substantiate their views.
- C5: Acquiring the ability to search and select information to solve a given task or problem.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 Student has an extended knowledge of economic policy as an element of economic regulation - on a national, international scale and economic and integration groupings.

- PEU\_W02 Student knows the premises, types, directions as well as economic and legal effects of the evolution of markets, market structures and selected institutions in current economies.
- PEU\_W03 Student explains the impact of global conditions (including legal and economic ones), including in the context of the macroeconomic and sectoral policies, on the competitiveness of the organization and the efficiency of its functioning.
- PEU\_W04 Student has extended knowledge about types of legal forms of business.

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relating to skills:

- PEU\_U01 Student is able to determine and analyse potential effects of economic and legal regulations introduced at the national and international level for the business activity.
- PEU\_U02 On the basis of statistical data, student is able to identify trends in the economy and potential opportunities and threats for doing business.

..

relating to social competences:

- PEU\_K01 Student can seek for the information and analyze it in order to solve the problem or given task.
- PEU\_K02 Student can present a subject matter in a communicative way (synthesising information and knowledge), can present a subject in a graphic form (e.g. multimedia presentation).

#### PROGRAM CONTENT

	Lectures	Number of hours
Lec 1	Introduction. Current mixed economies and conditions for conducting business (limitations of economic freedom).	2
Lec 2	Economic development. Competitiveness, innovativeness of economies and the directions of technological development.	2
Lec 3	Fiscal and budget policy and conditions for business conducting.	2
Lec 4	Labour market and employment cost.	1
Lec 5	Monetary policy and exchange rate policy and conditions for business conducting.	3
Lec 6	Stabilization and anti-cyclical policy.	2
Lec 7	Environmental regulations and economic account. Sustainability development.	2
Lec 8	Final test	1
	Total hours	.15
	Classes	Number of hours
Cl 1	Introduction.	1
Cl 2	Pan-European forms of doing business. Forms of doing business in Poland and other countries.	2
C1 3	Market structures. Demonopolization effects. Effects of monopolization on selected markets. Price policy in companies. Price regulations – tariffs.	2
Cl 4	Commodity markets. Exchanges, auctions. Pricing mechanisms.	2
Cl 5	Conditions of doing business in prosperity and economic crisis: opportunities and threats.	2
Cl 6	The impact of exchange rates, tariff, non-tariff and paratrophy conditions on the conditions of conducting business activity.	2
Cl 7	Externalities in economic account.	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. Analysis of selected problems, problematic discussions, common prepared presentations, activities, papers
- N3. Consultations

N4. Student's work – preparing oral presentation (using powerpoint) and writing form of the paper N5. Student's work – solving problems

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01÷PEU_W04	Final test
F2	PEK_U01÷PEU_W04 PEU_U01 PEU_K01, PEU_K02	Oral presentation of paper
F3	PEU_W1 ÷PEU_W04, PEU_U01, PEU_U02 PEU_K01, PEU_K02	Activities
F4	PEU_W02÷PEU_W04, PEU_U01 PEU_K01	Writing form of the paper

P (lecture) = F1

 $C (classes) = P = \alpha_1 F2 + \alpha_1 F3 + \alpha_2 F4,$ 

Where:  $\alpha_1 = 0.3$ ,  $\alpha_2 = 0.45$ 

 $\Sigma \alpha = 1$ 

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Acocella N., Zasady polityki gospodarczej, PWN, Warszawa 2002.
- [2] Byczko Sz., Katner W.J., (red. nauk.), Jakubiec A., Janeta J., Kappes A., Katner P., Kucharski B., Promińska U., Rzetelska A., Węgierski M., *Prawo gospodarcze i handlowe*, Wolters Kluwer Polska, Wyd. 2 uzupełnione, 2018Rozdziały AI-AIII, Rozdział A.X
- [3] Kasprzak W.A., Pelc K. I., Innowacje strategie techniczne i rozwojowe, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2012.
- [4] Makro- i mikroekonomia. Podstawowe problemy współczesności, Marciniak S. (red.), Wyd. Naukowe PWN, Warszawa 2013.
- [5] Polityka gospodarcza i finanse w teorii i praktyce, pod red. nauk. Paszewickiego A., Szczodrowskiego G., Instytut Wiedzy i innowacji, Warszawa 2011.
- [6] Szczodrowski G., Polski system podatkowy, Wydawnictwo Naukowe PWN, Warszawa 2019.

#### <u>SECONDARY LITERATURE:</u>

- [1] W. Nawrot, Globalny kryzys finansowy XXI w. Przyczyny, przebieg, skutki, prognozy, CEDEWU.Pl, Warszawa 2009.
- [2] Ostoj I., Pietrucha J., Tusińska M. Makroekonomia. Studia przypadków, Wyd. UE w Katowicach, Katowice 2013.
- [3] *Prawo handlowe*, praca zb. pod red. Ogólskiego J., Modrzejewskiej M., LEX a Wolters Kluwer business, Warszawa 2012 (Uwaga: patrz na rozdziały w których są aktualne akty prawne).
- [4] Przepióra P., Podatek VAT w małych i średnich przedsiębiorstwach. Dyskusja o neutralności i kształcie regulacji podatkowych, Wydawnictwo Politechniki Poznańskiej, Poznań 2009.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr inż. Edyta Ropuszyńska-Surma edyta.ropuszynska-surma@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish Fizyka Środowiska Pracy II Name of subject in English Work Environment Physics II

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0014W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)					
Number of ECTS points	2				
including number of ECTS points for practical (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.				

<sup>\*</sup>delete as applicable

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic mathematical and statistical skills (verified by maturity exam or higher). A course in physics (or equivalent) completed at 1<sup>st</sup> level of studies.

#### SUBJECT OBJECTIVES

- C1: Acquisition of specialist knowledge of the physical factors of the work environment affecting the employee, necessary in processes of manufacturing and human resource management.
- C1.1: Gaining knowledge of the physical aspects of the work environment: the reasons for the impact of physical factors on the employee, how they interact, potential psychophysical effects and ways to minimize their negative impact.
- C1.2: Acquiring knowledge about the ergonomic optimization of working conditions using chosen methods and tools for measuring, assessment and design the physical work environment, taking into account the physical, sensory and mental capabilities and limitations of the employee.

#### SUBJECT LEARNING OUTCOMES

In the field of knowledge:

PEU\_W01: student knows the individual physical factors of the work environment;

knows for what reasons (physical, anatomical, physiological, psychological) and how they affect people in the work process.

PEU\_W02: student knows the chosen methods and tools for measuring and assessing these factors, as well as for designing and optimizing the physical work environment in accordance with an ergonomic approach.

#### **PROGRAM CONTENT** Number of Lectures hours Introduction. Physical work environment as part of the human-machine-2 Lec 1 environment system. Review of physical factors affecting man in the work process. An ergonomic approach in the design and assessment of the working environment. Microclimate. Thermodynamics of the human body. Effects of thermal Lec 2 homeostasis disorder. Thermoregulatory mechanisms of physical and biochemical nature. Thermal insulation parameters of clothing as a barrier between man and thermal environment. Microclimate evaluation methods. Lighting. Structure of the eye's optical path. Signal processing by the neural Lec 3 system. Characteristics of perception of brightness, color and geometric patterns. Requirements related to ensuring appropriate conditions for visual work. The use of color models in the design of the visual environment. Noise. Hearing structure and its influence on hearing ability. Perception of pitch Lec 4 and loudness of sound as examples of phenomena subject to Weber-Fechner and Stevens laws. Noise as a harmful factor and stressor; physiological and psychological effects of being in noise. Organizational and technical measures to minimize exposure to noise in the workplace. Spatial relations between a man and the workplace. Impact of mismatch of the Lec 5 position to the anthropometric features of the employee on the enforcement of body posture in biomechanical terms. Location of signaling and control devices. Application of Fitts law in human-machine interface design. Methodology of researching the impact of the physical work environment on Lec 6 2 humans. 1. Psychophysical approach in measuring the subjective perception of physically measurable stimuli. The use of questionnaire methods and AHP approach in research and measurement of a subjective nature. Methodology of researching the impact of the working environment on humans. 2. Lec 7 Designing a factor experiment. Application of statistical methods in data analysis. Final test Lec 8 Total hours 15

#### TEACHING TOOLS USED

- N1. Lecture with slides and multimedia materials
- N2. Consultations
- N3. Own student work independent literature studies and preparation for the final test

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement
(duffing sefficater), I	number	
concluding (at semester		
end)		
P	PEU_W01	Written final test
	_	
	PEU_W02	
C		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [2] Halliday D., Resnick R., Walker J., Podstawy fizyki, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
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- [5] Jóźwiak J., Podgórski J., Statystyka od podstaw, Polskie Wydawnictwo Ekonomiczne, Warszawa 2012
- [6] Koradecka J. (red.), Bezpieczeństwo pracy i ergonomia, t. 1 i 2, Centralny Instytut Ochrony Pracy, Warszawa 1999
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- [8] Ozimek E., Dźwięk i jego percepcja. Aspekty fizyczne i psychoakustyczne, Wydawnictwo Naukowe PWN, Warszawa 2002
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- [10] Taylor J.R., Mechanika klasyczna, t. 1 i 2, Wydawnictwo Naukowe PWN, Warszawa 2006
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- [12] Wykowska M., Ergonomia jako nauka stosowana, Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, Kraków 2009

#### SECONDARY LITERATURE:

- [1] Alton Everest F., Pohlmann K.C., Podręcznik akustyki, Wydawnictwo Sonia Draga, Katowice 2013
- [2] Bell P.A., Greene T.C., Fisher J.D., Baum A., Psychologia środowiskowa, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2004
- [3] Brzeziński J., Metodologia badań naukowych i diagnostycznych [w:] Psychologia. Podręcznik akademicki, t. 1: Podstawy psychologii, Strelau J. (red.), Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000
- [4] Internetowy Podręcznik Statystyki, StatSoft, http://www.statsoft.pl/textbook/
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- [6] Kabza Z., Kostyrko K., Metrologia mikroklimatu pomieszczenia i środowiskowych wielkości fizycznych. cz. 1 i 2, Oficyna Wydawnicza Politechniki Opolskiej, Opole 2003/2004
- [7] Karwowski W. (red.), International Encyclopedia of Ergonomics and Human Factors, Taylor & Francis, 2001

- [8] Malinowski A., Bożiłow W., Podstawy antropometrii. Metody, techniki, normy, Wydawnictwo Naukowe PWN, Warszawa 1997
- [9] Młodkowski J., Aktywność wizualna człowieka, Wydawnictwo Naukowe PWN, Warszawa 1998
- [10] Rejmer K., Ciepło zimno czyli termodynamika fenomenologiczna, Wydawnictwo Sorus, Poznań 2013
- [11] Śliwowski L., Mikroklimat wnętrz i komfort cieplny ludzi w pomieszczeniach, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2000

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Jach, katarzyna.jach@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Międzynarodowe otoczenie działalności przedsiębiorstwa

Name of subject in English: International Business Environment

Main field of study (if applicable): MANAGEMENT

Specialization (if applicable): Managerial Behaviors and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0024

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has the basic knowledge about micro and macro economy
- 2. Student has the basic knowledge about functioning of the market and market mechanism.
- 3. Student is able to prepare to the lectures.

#### **SUBJECT OBJECTIVES**

C1: get knowledge of functioning of the international markets, with emphasis on circumstances and regulations of customs tariff policies

C2: get basic knowledge of macroeconomic analysis

C3: get knowledge of PETS analysis and analysis of clasters.

C4: Get and develop social skills which enable successful team work

SUBJECT EDUCATIONAL EFFECTS			
Related to knowledge:			
PEU_W01	Student has knowledge of functioning of international markets. He understands the macroeconomic business environment.		
PEU_W02	Students has knowledge about elements of the foreign trade, customs tariff policy and globalization.		
PEU_W03	Student understands the idea of international cooperation and macroeconomic results of		

	the globalization.
	Related to skills:
PEU_U01	Student can perform a macroeconomic analysis of the company.
PEU_U02	Student can use the basic macroeconomic terms connected with the foreign trade and business environment.
	Related to social competences:
PEU_K01	Student has social competences to work in team, to solve the problems and elaborate the case studies.
PEU_K02	Student can seek for the information and analyze it in order to solve the problem or given task.

	PROGRAMME CONTENT					
	Lectures	Number of hours				
Lec 1, 2	Introduction					
	Basic economic terms:					
	<ul> <li>Market, demand and supply</li> </ul>	2				
	Market structures	2				
	• Legal forms of business					
Lec 3	Business environment:					
	Macroeconomic environment					
	Demoghraphic environment					
	• Legal environment	1				
	International environment					
	Social environment					
	Technological environment					
Lec 4	International cooperation					
	• cooperation	1				
	oligopol and other forms of international ways of cooperation	1				
Lec 5,6	Elements of the foreign trade	2				
Lec 7,8	Customs tariff policies:					
	<ul> <li>Meaning of the customs tariff policy,</li> </ul>					
	• Legal regulations (domestic and in EU)	2				
	• Description of the documents in the foreign trade on the example of					
	JDA SAD					
Lec 9,10	Macroeconomic analysis of business environment	2				
Lec 11,12	Globalization	2				
Lec 13, 14	Macroeconomic results of globalization on the financial markets	1				
Lec 15	Final test	1				
	Total hours	15				

	Classes	Number of hours
Cw1	Introduction	1
Cw2	Main terms of business environment	2
Cw3	Foreign trade	2

Cw4	Cooperation	2
Cw5	Customs tariff policy	2
Cw6	Globalization	4
Cw7	Final test	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Multimedia presentation
  N2. Analysis of selected problems, problematic discussions
  N3. consultations
  N4. Stundet's work preparing oral presentation (using powerpoint) and writing form of the paper
  N5. Student's work solving problems

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT					
<b>Evaluation</b> (F – forming	Educational effect	Way of evaluating educational effect achievement			
(during semester), P –	number				
concluding (at semester					
end)					
	Lect	ure:			
F1=P	PEU_W01 ÷ PEU_W05	Final test			
	Clas	sses:			
F1	PEU_K02, PEU_K03	Oral presentation and writing form of the paper			
F2	PEU_K01 ÷ PEU_K03	Team work			
	PEU_U01, PEU_U02				
F3	PEU_U01, PEU_U02	Final test			
	PEU_W02, PEU_W04,				
	PEU_W05				
$P = \alpha_1 F1 + \alpha_2 F2 + \alpha_3 F3$ ,					
gdzie $\alpha_1 = 0, 3, \alpha_2 = 0, 2,$					
$\alpha_{3=}0,5$					
$\Sigma \alpha = 1$					

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- Treder H. (red.), PodstaLec handlu zagranicznego, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2005.
- [1] [2] Białecki K., Operacje handlu zagranicznego, PWE, Warszawa 2002.
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- Stepień B. (red.), Handel zagraniczny. Poradnik dla praktyków, PWE, Warszawa 2007 [5]
- Budnikowski A., Międzynarodowe stosunki gospodarcze, Lecd. III PWE Warszawa 2006 [6]
- [7] Krugman P., Obsfeld M., Ekonomia międzynarodowa, t. I i II, PWN, Warszawa 2008

#### SECONDARY LITERATURE:

- Bednarz J., Gostomski E., Działalność małych i średnich przedsiębiorstw na rynkach zagranicznych, Lecd. Uniwersytetu Gdańskiego, Gdańsk 2009
- Misala J., Lecmiana międzynarodowa i gospodarka światowa. Teoria i mechanizmy funkcjonowania, Lecd. SGH, [2] Warszwa 2005
- Rymarczyk J., Handel zagraniczny- organizacja i technika, PWE, Warszawa 2005. [3]

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr hab. inż. Małgorzata Rutkowska, <u>malgorzata.rutkowska@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name in Polish: Podstawy zarządzania i marketingu

Name in English: Fundamentals of Management and Marketing

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviors and Decisions

Profile: academic

Level and form of studies: 2st level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0003

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	30	-	-	15
Number of hours of total student workload (CNPS)	120	60	-	-	30
Form of crediting	exam	credit with a grade	-	-	credit with a grade
For group of courses mark (X) final course	-	-	-	-	-
Number of ECTS points	4	2	-	-	1
including number of ECTS points for practical (P) classes	-	2	-	-	1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	1,4	-	-	0,7

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### SUBJECT OBJECTIVES

To ensure fundamental knowledge (including application aspects) about:

- C1. characteristics, elements and types of organizations, and the impact of the environment on organizational operations (with particular emphasis on marketing)
- C2. management processes, functions, principles and tools,
- C3. key management issues (with particular emphasis on marketing),
- C4. organizational effectiveness.
- C5. the basic elements of marketing activity

To ensure fundamental skills to:

- C6. analyze and evaluate selected characteristics of the organization,
- C7. analyze and evaluate selected internal and inter-organizational relationships,
- C8 analyze and evaluate selected characteristics of marketing.

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

PEU\_W01 - has a basic knowledge about the characteristics, elements and types of organizations,

PEU\_W02 – understands basic management processes, functions, principles and tools,

PEU\_W03 - explains and illustrates the impact of the environment on the operations of the organization,

PEU\_W04 – identifies the basic management issues (with particular emphasis on marketing),

PEU\_W05 – understands the organizational effectiveness concept,

PEU\_W06 - has a basic knowledge about selected elements of marketing and marketing activities.

#### relating to skills:

PEU\_U01 - analyzes and evaluates (at a basic level) the objectives, characteristics and elements of the organization,

PEU\_U02 - analyzes and evaluates (at a basic level) internal and inter-organizational relationships,

PEU\_U03 - identifies and analyzes basic management issues (with particular emphasis on marketing),

PEU\_U04 – analyzes and evaluates (at a basic level) selected elements of marketing and marketing activities,

PEU\_U05 - analyzes and evaluates (at a basic level) marketing-mix elements.

#### relating to social competences:

PEU\_K01 - is aware of the need to develop knowledge and skills in the science of organization, management and marketing,

PEU\_K02 - is aware that manager's job is to continuously identify, analyze and resolve issues in organizations

PEU\_K03 - is prepared to express and defend his/her views, and to persuade others to his/her views

PEU\_K04 – is aware that managers have to comply with appropriate – professional and ethical standards.

	PROGRAMME CONTENT				
	Lectures	Number of hours			
Lec 1	Organization and management science – essence and subject	2			
Lec 2	The essence of managing an organization	2			
Lec 3	Organizational decision making.	2			
Lec 4	Process and scope of management	2			
Lec 5	Kinds of managers. Managerial roles and skills	2			
Lec 6	Strategic planning	2			
Lec 7	Operational planning	2			
Lec 8	Structure-creating factors and mechanisms	2			
Lec 9	Principles of organizational structure building	2			
Lec 10	Motivating	2			
Lec 11	Leadership styles. Leadership traits theory.	2			
Lec 12	Controlling in organizations	2			

Lec 13	The concept of marketing and its place in organization.	2
Lec 14	Lec 14 Market segmentation.	
Lec 15	2 15 Marketing-mix. Product, price, promotion, place.	
	Total hours	30

	Classes	Number of hours		
Cl 1	The organizations and its models.	2		
Cl 2	People. Variety of personalities.	2		
C1 3	Groups of interest and teams.	2		
Cl 4	Meaning of the organizational culture.	2		
Cl 5	Typology of organizational culture.	2		
Cl 6	Organizational structure dimensions	2		
Cl 7	Basic types of organizational structure. 2			
Cl 8	Organizational objectives. Functions and types of objectives.			
Cl 9	Technology. Kinds of technology, technology and social structure 2			
Cl 10	Organizational effect. Typologies of organizations 2			
Cl 11	Organizational environment (with particular emphasis on marketing)	2		
Cl 12	Marketing activities 2			
Cl 13-14	Marketing-mix	4		
Cl 15	Relations between elements of chosen organization (with particular emphasis on marketing)	2		
	Total hours	30		

	Seminar	Number of hours		
Sem 1	Sem 1 Analysis and evaluation of chosen organization's goals			
Sem 2	Analysis and evaluation of chosen organization's technology	2		
Sem 3	Analysis and evaluation of chosen organization's culture	2		
Sem 4	Analysis and evaluation of chosen organization's organizational structure	2		
Sem 5	Environment identification	2		
Sem 6 – Sem 7	Analysis and evaluation marketing activities of chosen organization	4		
Sem 8	Analysis and evaluation of relations between elements of chosen organization (with particular emphasis on marketing)	2		
	Total hours	15		

### TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations N2. Questions to students during lecture N3. Case studies presented during lecture N4. Discussion of selected issues

- N5. Analysis and evaluation of real organization's assigned characteristics
- N6. Self-study: classes preparation and final assessment preparation
- N7. Presentations prepared by students

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	•	Way of evaluating learning outcomes achievement	
F1	PEU_U01-4	Quizzes (during classes)	
F2	PEU_U01-4, PEU_K01-3	Scoring students' involvement and presentations (during classes)	
C1	Final mark consists of F1(50%) and F2 (50%)		
F3	PEU _K01-4	Scoring students' involvement during lecture	
F4	PEU_W01-5	Exam	
C2	Final mark consists of F4 (90%) and F3 (10%)		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Hopej M.: Podstawy zarządzania, Oficyna Wyd. PWr, Wrocław 1999.
- [2] Koźmiński A.K., Piotrowski W. [red.]: Zarządzanie. Teoria i praktyka, PWN, Warszawa 2006.
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- [4] Kotler Ph, Armstrong G., Marketing: wprowadzenie, Warszawa: Oficyna a Wolters Kluwer business. 2012
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- [6] Kotler Ph.: Marketing. Wyd. 11. Poznań: REBIS, 2005.

#### SECONDARY LITERATURE:

- [1] Bielski M.: Podstawy teorii organizacji i zarządzania, C. H. Beck, Warszawa 2004.
- [2] Bielski M.: Organizacje: istota, struktury, procesy, Wyd. Uniwersytetu Łódzkiego, Łódź 1992.
- [3] Bieniok H. [red.]: Metody sprawnego zarządzania: planowanie, organizowanie, motywowanie, kontrola, PLACET, Warszawa 2011.
- [4] Czarniawska B.: Trochę inna teoria organizacji: organizowanie jako konstrukcja sieci działań, Poltext, Warszawa 2010.
- [5] Griffin R.W.: Podstawy zarządzania organizacjami, PWN, Warszawa 2009.
- [6] Hopej M.: Struktury organizacyjne: podstawowe, współczesne i przyszłe rozwiązania strukturalne, Ossolineum, Wrocław 2004.
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- [8] Hatch M.J.: Teoria organizacji, PWN, Warszawa 2002.
- [9] Marketing. Przewodnik, red. L. Garbarski, Warszawa 2004.
- [10] Mikuła B., Pietruszka-Ortyl A., Potocki A. [red.]: Podstawy zarządzania przedsiębiorstwami w gospodarce opartej na wiedzy, Difin, Warszawa 2007.
- [11] Morgan G.: Obrazy organizacji, PWN, Warszawa 1997.

- [12] Mruk H., Pilarczyk B., Sławińska B., Marketing koncepcje, strategie, trendy Uniwersytet Ekonomiczny w Poznaniu 2012.
- [13] Robbins S.P., DeCenzo D.A.: Podstawy zarządzania, PWE, Warszawa 2002.
- [14] Schermerhorn J.R.: Zarządzanie, kluczowe koncepcje, PWE, 2008.
- [15] Skalik J. [red.]: Projektowanie systemów zarządzania, Wyd. AE we Wrocławiu, Wrocław 1997.

#### Journals

- · Marketing i Rynek
- Marketing w Praktyce
- · Media Marketing
- Marketing & More
- Brief
- · Przegląd Organizacji
- · Ekonomika i Organizacja Przedsiębiorstwa
- · Manager Magazine

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Anna Zabłocka-Kluczka (<u>anna.zablocka-kluczka@pwr.edu.pl</u>)
Dr inż. Anna Sałamacha (<u>anna.salamacha@pwr.edu.pl</u>)

#### **SUBJECT CARD**

Name of subject in Polish: Prawo gospodarcze Name of subject in English: Economic law Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0004

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	30			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,0	1,0			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of the law

#### **SUBJECT OBJECTIVES**

- C1 Objective item is showing the importance of law in the field of the taking up and pursuit of the wider business
- C2 In the course of the organizational-legal form and is characterised by the taking up and pursuit of the business, the scope of the study and the future practice of graduates
- C3 In detail activities shall be submitted to the legal regulations governing the legal and organisational, which form the basis for the taking up and pursuit of the business

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 -distinguishes and characterizes the basic types, types and forms of enterprises, identifies their objectives, functional areas, and relationships between them. Have knowledge about their formation, operation, transformation and development in the legal procedures for setting up. It has an elementary knowledge of organizational structures, strukturotwórczych factors and processes shaping them.

PEU\_W02-identifies the company's interactions with the environment in the context of the circumstances

national, international and intercultural. Explains and illustrates the effect of impact of ambient temperature on the activity of the enterprise.

#### relating to skills:

PEU\_U01 - it can indicate the causes of social phenomena and legal conditions required for decision making in the enterprise at different levels of management. Indicates the cause and effect diagrams compounds economic decisions.

PEU\_U02 -able to formulate your own opinions based on rational arguments about events of economic phenomena affecting the scope of managerial decisions and use tips and expert advice

PEU\_U03 -can make a selection and use of sources of information for the purpose of carrying out the analysis made of the decision-making problem and make recommendations in respect of decisions taken by the economic operators.

PEU\_U04 -use norms and standards in the process of planning, organizing, motivating and controlling for managerial decisions.

#### relating to social competences:

PEU\_K01 -able to interact and work in Group and team-based forms of work organisation (assuming different roles in them). Shows a willingness to self organize and directing work teams

	PROGRAMME CONTENT			
	Lectures	Number of hours		
Lec 1	The concept of economic law-systematics business law sources	2.		
Lec 2	Economic law. Economic activity. The characteristics of the basic concepts referred to in the Act on freedom of economic activity. Economic freedom and its limitations	2		
Lec 3	Entrepreneur. The definition of an entrepreneur. Enterprise. Obligations for traders	2		
Lec 4	Types of companies	2		
Lec 5	Commercial companies	2		
Lec 6	Capital companies and their role in the economy	2		
Lec 7	Limited liability company-the General characteristics of the market activity	2		
Lec 8	Joint-stock company on the market. Actions-types, principles of marketing actions. Terms of the acquisition of shares	2		
Lec 9	Systematics of securities and their characteristics	2		
Lec 10	Bankruptcy procedure and the conditions for its application	2		

Lec 11	Reorganisation proceedings	2	
Lec 12	Lec 12 The right to the protection of free competition		
Lec 13	Economic justice. Mediation as an instrument of economic disputes	2	
Lec 14	The legal bases for the activities of undertakings in the European Union	2	
Lec 15	Terms and conditions of establishment in the European Union	2	
	Total hours	30	
	Classes	Number of hours	
Cl 1	A partnership as a conventional form of economic activity	4	
C1 2	The market activities of the company-confidential	4	
C1 3	A Partnership	4	
Cl 4	Limited partnership and joint-stock company	4	
Cl 5	Limited partnership and joint-stock company	4	
Cl 6	The economic agreement as an instrument of business. Typology of economic agreements. Characteristics of major types of contracts	4	
Cl 7	International regulations in the field of contracts-standards and contractual patterns	6	
	Total hours	30	

#### **TEACHING TOOLS USED**

# N1. lecture by information N2. multimedia presentation N3. lecture by have problem EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 PEU_W02	test
F2	PEU_U01 PEU_U02 PEU_U03 PEU_U04 PEU_K01	projekt
P = 0.5 F1 + 0.5 F2	•	

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE

- [1] Filipowicz A., Podstawy prawa dla ekonomistów, Wyd. C.H. Beck, Warszawa 2006
- [2] Kidyba A., Prawo handlowe, Wyd. C.H.Beck, Warszawa 2011
- [3], Prawo spółek handlowych", t.I i II, Wyd. C.H.Beck, Warszawa 2012
- [4]"Prawo handlowe. Zbiór przepisów", Wyd. Wolters Kluwer, Warszawa 20112

#### SECONDARY LITERATURE:

- [1] Prawo handlowe. Teksty ustaw", Wyd. C.H.Beck, Warszawa 2012
- [2] Kuraś A. Kuros S., Toczek M., Spółki osobowe. Prawo spółek, Wyd. Difin, Warszawa 2012
- [3]Zdanikowski P., Prawo udziałowe w spółce z.o.o., Wyd. Difin, Warszawa 2011
- 4]Adamik A., Kształtowanie konkurencyjności i przewagi konkurencyjnej małych i średnich przedsiębiorstw, Wyd.C.H.Beck, Warszawa 2011
- [5]Sitkowska K., Stepień T., Problematyka spółek ze szczególnym uwzględnieniem odpowiedzialności cywilnej i karnej, Wyd. Wolters Kluwer, Warszawa 2011

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Aldona Małgorzata Dereń aldona.deren@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Przedsiębiorczość i Innowacje Name of subject in English: Entrepreneurship and Innovations

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behavior and Decisions

Profile: academic

Level and form of studies: 2nd level, , full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0010

Group of courses: NO

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	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7				0,7

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### SUBJECT OBJECTIVES

- C1 Obtaining knowledge about entrepreneurship and innovations
- C2 Knowing instruments (strategies, models and methods), that support entrepreneurship and innovations

#### SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU\_W01 Student knows the idea of strategic entrepreneurship

PEU\_W02 Knowledge about type of entrepreneurship

PEU\_W03 Familiarity with instruments (concepts, methods, models) of estimation a entrepreneurship

Relating to skills:

PEU U01 Student is able to seek and interpret knowledge of entrepreneurship

Relating to social competences:

PEU\_K01Acquire a enthusiastic approach for activity and skills in the field of innovation and creative thinking

	PROGRAM CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to entrepreneurship and innovations	1
Lec 2	Entrepreneurial organisation	2
Lec 3	Entrepreneurial people	2
Lec 4	Entrepreneurial resourcess	2
Lec 5	Entrepreneurial processes	2
Lec 6	Creating startups	2
Lec 7	Creating nnovations	2
Lec 8	Colloquium	2
	Total hours	15
	Seminar	Number of hours
Sem 1	Introduction to seminar	1
Sem 2	Defining innovative entrepreneurship	2
Sem 3	Type of innovative etrepreneurship	2
Sem 4	Innovative entrpreneurship – models, strategies, cocepts	2
Sem 5	Process approach of innovative entrepreneurship	2
Sem 6	Innovative entrepreneurship assessment	2
Sem7	Examples of entrepreneurial organizations and innovations	2
Sem8	General remarks and summary	2
	Total hours	15

#### TEACHING TOOLS USED

N1 Laptop

N2. . Multimedia performance N3. Selected statistical data and reports

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_U01	Estimation the student activity by checking list of presence (lecture, seminar)
F2	PEU_W01 PEU_W02	Estimation the knowledge by colloquium, preparing the project and seminar performance

	PEU_W03 PEU_UO1				
F3	PEU_K01	Assessment of creative thinking by discussion activity on classes (lecture, seminar)			
P = 0.25F1 + 0.5F2 + 0.25F3					

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE

- [1] J. DYER, H. GREGERSEN, C.M. CHRISTEMSEN, DNA INOWATORA. ICAN INSTITUTE 2011.
- [2] A. DEREŃ, J.SKONIECZNY, ZARZĄDZANIE TWÓRCZOŚCIĄ ORGANIZACYJNĄ, WYD. DIFIN WARSZAWA2016.
- [3]W.KASPRZAK, K.PELC, INNOWACJE. STRATEGIE TECHNICZNE I ROZWOJOWE, WYDAWNICTWO POLITECHNIKI WROCŁAWSKIEJ, WROCŁAW, 2012
- [4] G.GIERSZEWSKA, B.OLSZEWSKA, J.SKONIECZNY, ZARZĄDZANIE STRATEGICZNE DLA INŻYNIERÓW, PWE, WARSZAWA 2012
- [5] J.SKONIECZNY (RED.), KSZTAŁTOWANIE ZACHOWAŃ INNOWACYJNYCH, PRZEDSIĘBIORCZYCH I TWÓRCZYCH W EDUKACJI INŻYNIERA, WYDAWNICTWO INDYGO ZAHIR MEDIA, WROCŁAW, 2011
- [6] P.DRUCKER, NATCHNIENIE I FART CZYLI INNOWACJA I PRZEDSIĘBIORCZOŚĆ, WYDAWNICTWO STUDIA EMKA, WARSZAWA 2004
  [7] J.SKONIECZNY, TWÓRCZOŚĆ JAKO PODSTAWA RZOWOJU ORGANIZACJI, OFICYNA WYDAWNICZA PWR, WROCŁAW, 2019.

#### SECONDARY LITERATURE:

- [1] E. Catmull, *Kreatywność S.A.* MT Biznes, Warszawa 2014.
- [2] P. Thiel, Zero to one, Notatki o start-upach, czyli jak budować przyszłość, MT Biznes, Warszawa 2015
- [3] W. Isaacson, Steve Jobs, Wydawnictwo Insignis, 2011
- [4] L. Kahney, *Jony Ive, genius, który zaprojektował najsłynniejsze produkty Apple*, Insignis, 2014.
- [5] W. Isaacson, *Innowatorzy*, Wyd. Insignis 2014.
- [6] Ph. Knight, Sztuka zwycięstwa, Rebis, Poznań 2017

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jan SKONIECZNY, PhD Eng., jan.skonieczny@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish Psychologia w zarządzaniu Name of subject in English Management psychology Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0005

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					0,7

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about psychological mechanisms of human functioning

#### **SUBJECT OBJECTIVES**

- C1 Acquiring knowledge about the psychological basis of human functioning in a group and organization
- C2 To make students aware of psychological methods and related consequences of managing people
- C3 Acquiring knowledge to shape skills such as influencing, coping with stress, maintaining balance between the requirements related to performing various roles in the organization

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 An in-depth knowledge about leadership, motivation, group mechanisms and social impact in the organization. Principles of preventing negative individual and social phenomena in an organization.

relating to skills:

PEU\_U01 Skills to identifies factors contributing to the effectiveness of individual and team behavior in the organization and abilities to use them to design effective teams and effective leadership relating to social competences:

PEU\_K01 Awareness of the need for independent, critical assessment of the scope and level of the knowledge and professional skills in the field of organization and management sciences, as well as in the interdisciplinary dimension. Readiness to independently search for areas of knowledge to be supplemented and skills to be improved

PEU\_K02 Competency to share own views and defend them. Readiness to convince and negotiate in the name of achieving common goals.

	PROGRAM CONTENT			
	Lectures  Psychology and management sciences. The role of psychological processes in management processes. Psychological bases of behavior at work and in the organization.			
Lec 1				
Lec 2	The role of individual predispositions of biological and acquired traits at work and in the organization (temperament, intelligence, abilities).	2		
Lec 3	The role of personality predispositions at work and in organization (personality, temperament, abilities, attitudes)	2		
Lec 4	Dysfunctional mechanisms at work and in the organization during social nteractions (social perception, attribution mechanisms, cognitive inclinations, etc.)			
Lec 5	Person-job fit and person-organization fit: organizational demands - psychological resources of an individual at work and in an organization (knowledge, abilities, skills, professional interests, attitudes, values).			
Lec 6	Individual bases of task solving processes and creative thinking.	2		
Lec 7	Psychology of leadership, psychological bases and consequences of management styles.	2		
Lec 8	Motivation to work - types of motivation (positive, negative, internal, external, achievements); psychological mechanisms of motivating to work.			
Lec 9	Psychological determinants of effective financial and non-financial motivation.	2		
Lec 10	Managerial decision making processes	2		
Lec 11	Psychological aspects of decision making and risk perception in the organization	2		
Lec 12	Group processes and group membership.	2		
Lec 13	Stress at work and stress management in the organization. Employees well-being.	2		
Lec 14	Time management and work organization.	2		
Lec 15	Pathology in the organization (burnout, workaholism, mobbing).	2		
	Total hours	30		
	Seminar	Number of hours		
Sem 1	Introduction to organizational and occupational psychology.	1		
Sem 2	Personality characteristics of the manager and team members and their role in effective work.	2		
Sem 3	Social influence in organizations	2		
Sem 4	The role of creativity in task and decision-making processes.	2		
Sem 5	Attitudes towards work and organization; employees' job satisfaction and wellbeing.	2		
Sem 6	Sources of stress at work and strategies for dealing with stress. Work and personal life conflict	2		
Sem 7	Pathology in the organization (burnout, workaholism, mobbing).	2		

Managerial functions and roles: similarities between men and women. Summary of classes and knowledge test.	2
Total hours	15

#### **TEACHING TOOLS USED**

- N1. Lecture
- N2. Discussions
- N3. Multimedia presentations
- N4. Moderated discussion
- N5. Training and simulation exercises

#### **EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT**

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end	Learning outcomes number	Way of evaluating learning outcomes achievement
` '	PEU_W01 PEU_U01	Written test
`	PEU_K01 PEU_U01	Assessment of the substantive and formal value of work and presentation. Verbal feedback
	PEU_W01 PEU_U01	Knowledge test

#### P2 (seminar) F1+F2+F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Babiak, J. Bajcar, B. Borkowska, A. (2017). Kobiety i mężczyźni na stanowiskach menedżerskich wyolbrzymione, czy niedoszacowane różnice? *Zarządzanie Zespołami Ludzkimi*, 1.
- [2] Bajcar, B. (2019). Jasne i ciemne strony cech osobowości pracownika w organizacji. Przegląd wyników badań. *Zarządzanie Zasobami Ludzkimi, 1,* 73-83.
- [3] Cakrt, M., (2006). Kto jest kim. Typy osobowości dla menedżerów. Gliwice: Helion
- [4] Chmiel, N. (2003). Psychologia pracy i organizacji. Gdańsk: GWP.
- [5] Cialdini, R. (2003) Wywieranie wpływu na ludzi Gdańsk: GWP
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- [7] Czerw, A. (2017). Psychologiczny model dobrostanu w pracy. Wartość i sens pracy. Warszawa: PWN
- [8] Gitlin, M. (2013). Człowiek w organizacji. Ludzie, struktury, organizacje. Warszawa: Difin.
- [9] Jachnis, A. (2008). Psychologia organizacji. Kluczowe zagadnienia. Warszawa: Difin.
- [10] Makin, P., Cooper, C., Cox, C. (2000) *Organizacje a kontrakt psychologiczny*. Warszawa: Wydawnictwo Naukowe PWN.

#### SECONDARY LITERATURE:

- [11] Aronson E., Wilson T.D., Akert R.M., (1997). Psychologia społeczna. Serce i umysł, Poznań.
- [12] Bajcar, B., Borkowska, A., Czerw, A., Gąsiorowska, A. (2011). *Satysfakcja z pracy w zawodach z misja społeczną*. Gdańsk: GWP.
- [13] Clutterbuck, D. (2005). *Równowaga między życiem zawodowym a osobistym*. Kraków: Oficyna Ekonomiczna.
- [14] Czarnota-Bojarska, J. (2010). Dopasowanie człowiek-organizacja i tożsamość organizacyjna. Warszawa: Wydawnictwo Naukowe Scholar.
- [15] Doliński, D. (2005) Techniki wpływu społecznego Warszawa: Wydawnictwo Naukowe Scholar
- [16] Griffin, R.W. (2017). Podstawy zarządzania organizacjami. Warszawa: PWN.
- [17] Hornowska, E., Paluchowski W. J. (2007). *Praca skrywana obsesja. Wyniki badań nad zjawiskiem pracoholizmu*. Poznań: Bogucki Wydawnictwo Naukowe

- [18] Kenrick D. T., Neuberg S. L., Cialdini R.B. (2002). *Psychologia społeczna. Rozwiązane tajemnic*. Gdańsk: GWP.
- [19] Łuczak, A. (2001). Wymagania psychologiczne w doborze osób do zawodów trudnych i niebezpiecznych. Warszawa: CIOP.
- [20] Maslach, Ch., Letter, M P. (2011). *Prawda o wypaleniu zawodowym*. Warszawa: Wydawnictwo Naukowe PWN
- [21] Merecz, D. (2010). *Dopasowanie człowieka do środowiska pracy uwarunkowania i skutki*. Łódź: Instytut Medycyny Pracy im. Prof. J. Nofera.

Schultz, D., Schultz, S. (2003). Psychologia a wyzwania dzisiejszej pracy. Warszawa: PWN.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar beata.bajcar@pwr.edu.pl

#### SUBJECT CARD

Name in Polish: Rachunkowość i finanse dla menedżerów Name in English: Accounting and finance for managers

Main field of study (if applicable): Management

Specialization (if applicable): Managerial behaviors and decisions

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory
Subject code: W08ZZZ-SM0011

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	30			
Number of hours of total student workload (CNPS)	90	60			
Form of crediting	Examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	3	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	1,4			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Knowledge of fundamentals of economics.
- 2. Knowledge of organizational and legal fundamentals of enterprise functioning.

#### **SUBJECT OBJECTIVES**

- C1 Acquainting students with principles of financial accounting and methods and tools of conducting bookkeeping operations.
- C2 Acquainting students with meanings of information included in corporate financial reports.
- C3 Acquainting students with basic financial mechanisms functioning in corporations.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – student knows terminology of accounting and corporate finance,

PEU\_W02 – student knows principles and rules of accounting functioning in enterprises,

PEU\_W03 – student knows basic financial mechanisms and tools existing and used in enterprises (corporations).

#### relating to skills:

PEU\_U01 – is able to recognize bookkeeping effects of decisions undertaken in corporation,

PEU\_U02 – is able to make a basic effectiveness calculations for an enterprise (a corporation),

PEU\_U03 – is able to read with understanding corporation's financial reports.

relating to social competences:

- PEU\_K01 understands a need for constant developing her/his knowledge and skills in the area of financial aspects of enterprises functioning,
- PEU\_K02 understands a specialist financial language and is able to comment with precision on financial aspects of corporation management,
- PEU\_K03 is prepared to take part in production and investment projects, understanding their influence on financial results of corporation.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Genesis and types of accounting	2
Lec 2	Principles and rules of accounting	2
Lec 3	Problem of valuation in accounting	2
Lec 4	Fundamental financial categories	2
Lec 5	Basics of bookkeeping operations	2
Lec 6	Balance sheet description and discussion	2
Lec 7	Sources of enterprise (corporation) financing	2
Lec 8	Presentation and discussion of Profit&Loss Statement and Cash Flow Statement	2
Lec 9	Preliminary assessment of corporation on the basis of its financial reports	3
Lec 10	Break-even point analysis	2
Lec 11	Financial leverage	2
Lec 12	Operational leverage and total leverage	2
Lec 13	Profitability and its analysis	2
Lec 14	Financial liquidity and methods of its investigation.	2
Lec 15	Summing up lecture	1
	Total hours	30
	Classes	Number of hours
Cl 1	Registering bookkeeping tools of accounting	2
C1 2	Bookkeeping balance sheet operations	4
C1 3	Bookkeeping income/cost (result) operations	4
Cl 4	Amortization methods	2
Cl 5	Transfer from accrual to cash accounting	2
Cl 6	Preparing corporation financial statements	4
Cl 7	Cost-Volume-Profit analysis	2
Cl 8	Functioning of operational, financial and total leverages	4
C1 9	Elaboration of basic effectiveness analysis of an enterprise	4
Cl 10	Colloquium	2
	Total hours	30

#### TEACHING TOOLS USED

- N1. Lecture with multimedia presentations and discussions
- N2. Calculation exercises tasks solving and discussing
- N3. Student own work preparing for exercises and examination

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P –		Way of evaluating learning outcomes achievement
concluding (at semester end)		
F	PEU_W01 PEU_W02 PEU_W03	Colloquium
С	PEU_W01 PEU_W02 PEU_W03	Examination

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE

- [1] Dudycz T., Analiza finansowa jako narzędzie zarządzania finansami przedsiębiorstwa, Wydawnictwo Indygo Zahir Media, Wrocław 2011
- [2] Podstawy rachunkowości, pod red. K. Sawickiego, PWE, Warszawa 2005

#### SECONDARY LITERATURE

- [1] Rutkowski A., Zarządzanie finansami, PWE, Warszawa 2007
- [2] Gierusz B., Podręcznik samodzielnej nauki księgowania, ODiDK, Gdańsk 2008

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, tadeusz.dudycz@pwr.wroc.pl

#### **SUBJECT CARD**

Name of subject in Polish: Teoria i praktyka regulacji gospodarczych Name of subject in English: Theory and practice of economic regulation

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviours and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0025

Group of courses: NO

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	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	30			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	1	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7	0,7			

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Student has knowledge of "Managerial economics" course.
- 2. Student has basic knowledge about civil and commercial law.

#### SUBJECT OBJECTIVES

- C1 Learning and understanding the issue of environment for running a business on domestic and international markets under conditions of economic-legal regulations intending to support social and economic aims accepted in economy or in integration groups.
- C2 Learning and understanding reasons and stages of regulation processes evolution in contemporary economies.
- C3. Teaching students about regulation theories and used regulation tools of macro- and microeconomic policy as well as to achieve social goals, including ecological aims.
- C4 Teaching skills to identify and analyze social cost and benefits of implemented regulation tools on some levels: international, economy groups, domestic, regional and local. Teaching skills to identify potential influence of the regulations on business decisions and on directions of changes on the markets (including structural changes).

#### SUBJECT LEARNING OUTCOMES

#### relating to knowledge:

A student should:

PEU\_W01 know about the reasons and directions of regulation changes in contemporary economies, with particular consideration to globalization and regionalization processes of economies on levels: territorial, economic and social.

PEU W02 know theory of regulations in the context of changing state functions in economy.

PEU\_W03 know reasons, tools and results of the economic and legal regulations on micro- (sectorial) and macroeconomic (global) levels addressed to particular markets and enterprises.

PEU\_W04 have knowledge about potential structural changes in companies and organizational groups, and on markets as a result of implemented regulations.

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#### relating to skills:

#### A student should:

PEU\_U01 be able to identify and to analyze potential effects of implemented domestic and international economic-and-legal regulations for particular organizations, markets and integration groups.

PEU\_U02 be able to formulate their own opinions based on rational arguments related to economic events and phenomena influencing managerial decisions; as well as be able to use experts' opinions and advice. PEU\_U03 be able to make choice and to use information sources to perform organization analysis related to present domestic and international regulations.

PEU U4 be able to make recommendations connected to strategic and tactical decisions in enterprises under conditions of implementation economic and social regulations.

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#### relating to social competences:

#### A student should:

PEU\_K01 be prepared to seek knowledge on its own.

PEU\_K02 be able to think in entrepreneurial way in the context of economic profits and losses.

PEU\_K03 be able to dispute and to support their opinions by using arguments about the potential results of applied economic-and-legal regulations.

#### PROGRAM CONTENT Number of Lectures hours Introduction. Economy policy. The term of economic-and-social Lec 1 1 regulations. Regulation theories. Market and its failures reasons for regulations on the Lec 2 2 microeconomic level. Government's functions in economy. Types of economies in the context of Lec 3 1 actively managing government and regulatory government. Welfare economics and social optimum as a reason for economic Lec 4 1 regulations. Monopoly and oligopoly with regulations related to prices, quantities, costs, Lec 5 barriers to introduction on market, and ownership forms of enterprises – in 2 the context of structural changes on market and the liberalization of economies. Long- and short-run effects of used regulation actions. Lec. 6 State policy and economy groups' policy addressed to mergers of 1 companies. Lec. 7 Reasons to introduce independent regulators, their functions and aims as 1 based on the example of infrastructural sectors.

Lec. 8	Tools of macroeconomic policy and their results on micro- and macroeconomic scale – tools of fiscal and income policy.	1
Lec. 9	Tools of macroeconomic policy and their results on micro- and macroeconomic scale – tools of monetary polities	1
	Tools of macroeconomic policy and their results on micro- and macroeconomic scale – tools of development and growth policy as well as tools to support competitiveness and innovation of economies.	1
Lec. 11	Tools of macroeconomic policy and their results on micro- and macroeconomic scale – tools of exchange rate and international trade polities	1
	External effects, internationalization costs, Pigouvian taxes. The rules of the external effects market on domestic and international scale.	1
Lec. 13	Written test	1
	Total hours	15.
	Classes	Number of hours
Cl 1	Reasons, aims, scope and effects of long-run and short-run economic-and-legal regulations related to social policy – poverty, equal opportunities, fight against social exclusion and unemployment. Goals and managerial decisions under the conditions of social regulations.	2
Cl 2	Reasons, aims, scope and the long-run and short-run effects of economic-and-legal regulations related to asymmetric information in economy.  Supporting information society and knowledge-based economy. Effects of patent law and copyright protection with monopolization of markets. Case study.	2
C1 3	Sectorial regulations as based on the example of telecommunication industry.	2
Cl 4	Sectorial regulations as based on the example of energy industry.	2
Cl. 5	Reasons, aims, scope and the long-run and short-run effects of economic-and-legal regulations related to sustainable growth policy. The presentation and characteristics of chosen examples. Managerial decisions related to production, investment, used technologies, as well as starting and running business – case study.	2
Cl. 6	Prices regulations.	2
Cl. 7	Support tools for research, technological development and innovativeness in companies. Creation of new organizational-and-structural forms and structural changes as the effects of implemented regulations – case study.	3
	Total hours	15
-	study.  Prices regulations.  Support tools for research, technological development and innovativeness in companies. Creation of new organizational-and-structural forms and structural changes as the effects of implemented regulations – case study.	

- N1. Information lecture
- N2. Multimedia presentation
- N3. Problem-oriented lecture
- N4. Practical exercises
- N5. Discussion
- N6. Students' papers multimedia presentation and written version of paper.
- N7. Self-preparation to the classes

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F	Learning outcomes number	Way of evaluating learning outcomes achievement
<ul><li>forming</li></ul>		

(during semester), P – concluding (at semester end)		
F1	PEU_W01, PEU_W03, PEU_W04 PEU_U01, PEU_U02, PEU_U04 PEU_K02÷PEU_K03	Activeness in classes (participation in discussions, self-preparation to the classes, doing exercises.
F2	PEU_W03, PEU_W04 PEU_U01÷PEU_U04 PEU_K01÷PEU_K03	Mark related to written version of papers
F3	PEU_03, PEU_W04 PEU_U01÷PEU_U04 PEU_K01, PEU_K03	Marks related to presentation
F4	PEU_W01÷PEU_W04	Mark related to final test.

P (lecture) = F4

P (classes) = 0.2\*F1+0.4\*F2+0.4\*F3

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Acocella N., Zasady polityki gospodarczej, PWN, Warszawa 2002.
- [2] Ekonomiczne problemy ochrony środowiska i rozwoju zrównoważonego w XXIw., pod red. Jeżowskiego P., Wydawnictwo Szkoły Głównej Handlowej w Warszawie, Warszawa 2007.
- [3] Graczyk A., Instrumenty rynkowe polityki ekologicznej. Teoria i praktyka, Wyd. UE we Wrocławiu, Wrocław 2013.
- [4] B. Klimczak, Mikroekonomia, Wydawnictwo AE im. Oskara Langego we Wrocławiu, 2006 i kolejne wydania.
- [5] Ocena skutków regulacji poradnik OSR, doświadczenia, perspektywy, pod red. Szpringera Wł., Rogowskiego W., Wydawnictwo C.H. BECK, Warszawa 2007.
- [6] Png I., Lehman D., Ekonomia menedżerska, Wolters Kluwer, Warszawa 2011.
- [7] Surdej A., Determinanty regulacji administracyjnoprawnych w oddziaływaniu państwa na gospodarkę, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków 2006.

#### SECONDARY LITERATURE:

- [8] Block W., Rent Control, in , The Fortune Encyclopedia of Economics' by Henderson D. R., (red.), New York, 1993.
- [9] Graczyk A., Graczyk A.M., Wprowadzenie mechanizmów rynkowych w ochronie środowiska, PWE, Warszawa 2011.
- [10] Marszałek M., Swoboda działalności gospodarczej wytwórcy –sprzedawcy energii elektrycznej, Wyd. C.H Beck, Warszawa 2015.
- [11] Regulowana gospodarka rynkowa. Wybór materiałów do studiowania polityki gospodarczej, Kalina-Prysznic U. (red.), Oficyna Ekonomiczna, Kraków 2003.
- [12] Rockoff H., Price Controls, in , The Fortune Encyclopedia of Economics' by Henderson D. R.(red.), New York, 1993.
- [13] Samuelson W.F., Marks S.G., Ekonomia menedżerska, PWE, Warszawa 1998.
- [14] J. Sloman, Economics, FT Prentice Hall, London, 2003.
- [15] A.T. Szablewski, Liberalizacja sektora energetycznego i telekomunikacyjnego.
- [16] Z. Szalbierz: Spółki dystrybucyjne na rynku energii elektrycznej. Zmiana struktur rynku i procesów zarządzania. Wyd. Politechniki Wrocławskiej, Wrocław 2002.
- J. Trefor, Business Economics and Managerial Decision Making, John Wiley&Sons, 2004 (R. 18) Wrzosek W., Funkcjonowanie rynku, PWE, Warszawa 2002.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. EDYTA ROPUSZYŃSKA-SURMA; edyta.ropuszynska-surma@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Trening kierowniczy
Name of subject in English: Management Training
Main field of study (if applicable): Management

Specialization (if applicable): Managerial behaviors and decisions

Profile: academic

Level and form of studies: 2<sup>nd</sup> level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM0017L

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)			30		
Number of hours of total student workload (CNPS)			60		
Form of crediting			Crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points			2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,4		

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basic knowledge from the field of organizational management, marketing and corporate finance
- 2. Basic skills in MS EXCEL.

#### **SUBJECT OBJECTIVES**

- C1: Deepening knowledge on the development and the use of simple computer tools (EXCEL worksheets) supporting the process of working out decisions in a company.
- C2: Improving the ability to identify and solve dilemmas (decision problems) encountered by managers responsible for selected areas in a (simulated) company.
- C3: Deepening the ability to use a simple (computer) decision support system in managing a simulated company.
- C4: Deepening the ability to analyze the reasons for and the dynamics of the economic and financial situation of a simulated company.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01: Student has a knowledge on the development and the use of simple computer tools (EXCELL worksheets) enabling him to examine selected scenarios of the economic and financial situation of an enterprise.

relating to skills:

- PEU\_U01: Student is able to identify the main dilemmas (decision problems) encountered by managers responsible for selected areas in a (simulated) company as well as to suggest the way of solving these dilemmas (on examples).
- PEU\_U02: Student is able to make an effective use of the developed simple computer system supporting the process of working out decisions, in the management of the simulated company.
- PEU\_U03: Student is able to identify the main reasons for the differences in financial and economic outcomes of competing companies, acting on the same market.

#### PROGRAMME CONTENT

	Form of classes - laboratory	Number of hours
Lab 1	Discussion of the course completion criteria and the main work stages. Introduction to the management game, and - among other things – description of the economic system simulated in the game. Initial work on the system DSS_G supporting the process of working out decisions in the game: subsystem <i>Materials</i> .	2
Lab 2	Development of the system DSS_G (continuation) - subsystems: Work in Process; Finished Products; External Warehouses; Natural Environment.	2
Lab 3	Development of the system DSS_G (continuation) – subsystem <i>Selling Price of Finished Products</i> .	2
Lab 4	Development of the system DSS_G (continuation) – subsystems: <i>Necessary Production Personnel and Necessary Production Machines; Credits; Cash Flow.</i> Discussion of the requirements to be met during the test game. Test checking students knowledge.	2
Lab 5	<i>Test Game</i> . Correcting errors in the system DSS_G . Corrective (supplementary) test checking students knowledge.	2
Lab 6	Correcting errors in the system DSS_G (continuation). Discussion of the scenario for the <i>Main Game</i> .	2
Lab 7	Running the Main Game.	2
Lab 8	Running the Main Game (continuation).	2
Lab 9	Running the Main Game (continuation).	2
Lab 10	Running the Main Game (continuation).	2
Lab 11	Running the Main Game (continuation).	2
Lab 12	Running the Main Game (continuation).	2
Lab 13	Discussion of the main results achieved by the teams in the management game (teaching person). Presentation of the Final Reports prepared by teams (students).	2
Lab 14	Presentation of the Final Reports prepared by teams (continuation).	2
Lab 15	Presentation of the Final Reports prepared by teams (continuation). Course summary.	2
	Total hours	30

#### **TEACHING TOOLS USED**

N1. Knowledge transfer with the use of multimedia (teaching person).

- N2. Student self-studying: preparatory work for laboratory classes.
- N3. Discussion.
- N4. Problem solving exercises.
- N5. Simulation Game/Simulation.
- N6. Presentation of the Final Reports with the use of multimedia (students).

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F –		Way of evaluating educational effect achievement
forming	effect number	
(during		
semester), P –		
concluding (at		
semester end)		
F1	PEU_W01	Answering questions; Discussions; Tests, Progress in developing computer decision support system; <i>Test Game</i>
F2	PEU_U01	Answering questions; Discussions; Final Report
F3	PEU_U02	Results of the Main Game
F4	PEU_U03	One of the compulsory elements of the Final Report; Discussions;
		P=0,2*F1+0,1*F2+0,4*F3+0,3*F4

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Rzońca W., Gra kierownicza *SPÓŁKA* podręcznik uczestnika wraz z załącznikami oraz materiałami pomocniczymi (materiały dostępne na stronie Internetowej)
- [2] Nowak E., Rachunkowość. Kurs podstawowy, PWE Warszawa 2011 (wybrane fragmenty)
- [3] Sierpińska M., Jachna T., Ocena przedsiębiorstwa według standardów światowych , PWN, Warszawa 2011 (wybrane fragmenty)
- [4] Szapiro T., Decyzje menedżerskie z Excelem, PWE Warszawa 2000 (wybrane fragmenty)

#### SECONDARY LITERATURE:

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Mariusz Mazurkiewicz Mariusz.mazurkiewicz@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zachowania i Decyzje Menedżerskie. Name of subject in English: Managerial Behavior and Decisions

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behavior and Decisions

Profile: academic

Level and form of studies: 2nd/ full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0018

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	Crediting with grade				Crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical (P) classes					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7				0,7

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Passed Courses: The Rudiments of Organization and Management, Marketing Management, Human Resources Management, Managerial Economy Psychology of Decision Making

#### SUBJECT OBJECTIVES

- C1 Awareness of behavior's essence of manager's and his/her decision making in contemporary organization.
- C2 Identification of role and dynamic manners ( method ) they (their) implementation (perform), in open and unpredicted environment.
- C3 Behavior of modern organizations management and in conditions of uncertainties choice decision and risks.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 It knows basic roles and conditionality for operations and it knows mechanisms of manager and manager's behavior in decision

PEU\_W02 It knows mechanisms of managerial behavior supporting an efficiency of realization of purpose and goals in various essential perspective.

#### relating to skills:

PEU\_U01 It is able to identify key factors with reference to different practical situation forming managerial behavior

PEU\_U02 Complexity knows to sight in managerial decisions of and mechanisms causally consecutive

#### relating to social competences:

PEU\_K01 It is orientated on ethical behavior and in practice of functioning organization responsible.

PEU\_K02 Consciousness has devote fetch to designate efforts, eager and time for assessment of situation effecting organizational behavior

PEU\_K03 Honest perception of relationships has between formed between ordinate and organizational subordinate

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Organization and Institution Management. Authority in organization	2
Lec 2	Organizing functions and tasks of managers. Effectiveness, efficiency and proficiency of manager's decision	2
Lec 3	Manager as a visionary. Framer and creator of innovative solution	2
Lec 4	Manager as a controller of mechanism and in organization processes	2
Lec 5	Leadership in organization. Leader and role and tasks	2
Lec 6	Entrepreneurial manager. Models of business behavior	2
Lec 7	Manager as a negotiator and spokesman of organization. Public Relation and instruments of forming of rates with environment	2
Lec 8	Verification and evaluation of knowledge's level of student. Test	1
	Total hours	15
	Seminar	Number of hours
Sem 1	Organization, roles and principles of realization and graduation of course.	1
I	Authority and position of manager in organization. Styles and techniques of prosecution of authorities. Effectiveness, efficiency and proficiency of elastic organizational solution. Net organizations	2
	nnovative knowledge Management. Knowledge- identification, acquiring, storing, diffusion and deploying and protecting	2
	Business models vs. joint ownership, co-liability (co-responsibility) and co- nanagement. Legal and organizational forms of business's activity.	2
	Organizational behavior. Leadership and motivation's system – contemporary approach.	2
Sem 6	Cooperation, competition and cooperences. Strategic choices.	2
	Soft instruments of competing. PR vs. but construction, and keeping on image and reputation. Relationship with environment	2

Sem 8 Social Responsible Organization – The choice between to be or to have.	2
	15
TEACHING TOOLS USED	
N1. Lecture (formal participation)	
N2. Discussion (panel, internet)	
N3. Individual work (essays, literature study)	

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01, PEU_W02	Assessment of formal presence
F2	PEU_W02, , PEU_U01, PEU_U02,	Assessment of individual media presentation
F3	PEU_W02, PEU_U02, PEU_K01, PEU_K03	Assessment of activity on Seminar
F4	PEU_U02, PEU_K02	Assessment of individual work (essay)
F5	PEU_W01, PEU_W02	Final evaluation and/or exam

Pe = 0.4F1 + 0.6F5

Pz= 0,2 F1+0,3F2+ 0,3F3+0,2F4

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Brzeziński M., Organizacja kreatywna, PWN Warszawa, 2009.
- [2] Dobija M., Rachunkowość zarządcza i kontroling PWN Warszawa, 2012.
- [3] Koźmiński A., Zarządzanie w warunkach niepewności, PWN Warszawa, 2011.
- [4] Krawiec F., Kreowanie i zarządzanie reputacją firmy, Difin Warszawa, 2009.
- [5] Kuc B., Kontrola jako funkcja zarządzania, Difin Warszawa 2009.
- [6] Najda-Janoszka, Organizacja wirtualna, PWN Warszawa 2010.
- [7] Łasiński G., Rozwiązywanie problemów w praktyce, PWE Warszawa, 2007.
- [8] Malara Z., Przedsiębiorstwo w globalnej gospodarce. Wyzwania współczesności, PWN, Warszawa 2007.
- [9] Penc J. Decyzje i zmiany w organizacji, PWN Warszawa, 2009.
- [10] Piecuch T., Przedsiębiorczość. Podstawy teoretyczne, Difin Warszawa 2009.

#### SECONDARY LITERATURE:

- [1] Blanchard K., Przywództwo wyższego rzędu, PWN Warszawa, 2011.
- [2] Czarniawska B., Trochę inna teoria organizacji. Organizowanie jako konstrukcja sieci działań, PWN Warszawa 2012.
- [3] Harvard Business Review, Zarządzanie wiedza, PWN Warszawa, 2006.
- [4] Łukasiewicz G., Kapitał ludzki w organizacji, Pomiar i sprawozdawczość, PWN Warszawa 2009.

- [5] Malawski M., Wieczorek A., Sosnowska H., Konkurencja i i kooperacja. Teoria gier w ekonomii i naukach społecznych, PWN Warszawa 2006.
- [6] Morgan G., Obrazy organizacji, PWN Warszawa, 2006.
- [7] Obłój K., Strategie organizacji, PWE Warszawa, 2006.
- [8] Surma J., Business Inteligence. Systemy wspomagania decyzji biznesowych, PWN Warszawa, 2009.
- [9] Zimniewicz K., Współczesne koncepcje i metody zarządzania, PWN Warszawa, 2011.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zbigniew Malara Zbigniew.Malara@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: ZARZĄDZANIE JAKOŚCIĄ

Name in English: QUALITY MANAGEMENT Main field of study (if applicable): Management

Specialization (if applicable): ): Managerial Behavior and Decisions

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0019

Group of courses: NO

_	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,			0,7	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. None

#### **SUBJECT OBJECTIVES**

- C1. Acquisition of basic knowledge of quality management systems.
- C2. Acquisition of knowledge in the field of quality management methods and techniques.

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 – Student has basic knowledge of quality management, implementation and maintenance of quality management systems and of quality management tools.

relating to skills:

PEU\_U01 – Student is able to use selected tools of quality management.

relating to social competences:

PEU\_K01 – Student is aware of the importance of quality in an organization.

	Lectures		
Lec 1	Introduction to the lecture. Basic concepts (quality, quality management)	1	
Lec 2	The history of quality management.	2	
Lec 3	The concepts of quality management according to the philosophers of the quality.	2	
Lec 4	The principles of quality management.	2	
Lec 5	Review the quality management tools.	2	
Lec 6	Standardization of quality management systems.	2	
Lec 7	ISO 9000 series standards. Requirements of ISO 9001:2015.	2	
Lec 8	A summary of the lecture. Final test.	2	
	Total hours	15	
	Project	Number of hours	
Proj 1	Introduction to classes. Discussion of organizational matters. An overview of the scope of the project.	1	
Proj 2	An overview of selected quality management instruments.	2	
Proj 3	An overview of selected quality management instruments.  Preparation and consultation of the first part of the project.	2	
Proj 4	Preparation and consultation of the second part of the project.	2	
Proj 5	Preparation and consultation of the third part of the project.	2	
Proj 6	Preparation and consultation of the forth part of the project.	2	
Deci 7	Final projects presentations.	2	
Proj 7			
Proj 8	Final projects presentations. The final evaluation of projects.	2	

#### TEACHING TOOLS USED

- N1. Traditional lecture presentation using a slide projector.
- N2. Own work independent study and preparation for the test and exercises.
- N3. Project development.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01	Test
F2	PEU_U01	Evaluation on project

Lecture: C=F1 Project: C=F2

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- 1. Materials published on the course website an ePportal.
- 2. Brajer-Marczak R., "Doskonalenie zarządzania jakością procesów i produktów w organizacjach", Wyd. Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2015.

- 3. Hamrol A., Strategie i praktyki sprawnego działania: lean, six sigma i inne, Wydawnictwo Naukowe PWN, Warszawa 2016.
- 4. Hamrol A., Zarządzanie jakością z przykładami, Wydawnictwo Naukowe PWN, Warszawa 2012.
- 5. Zymonik Z., Hamrol A., Grudowski P., Zarządzanie jakością i bezpieczeństwem, PWE, Warszawa 2012.

#### SECONDARY LITERATURE:

- 6. Dobrowolska A., Podejście procesowe w organizacjach zarządzanych przez jakość, Poltext, Warszawa 2017.
- 7. Grudowski P.: *Projektowanie, nadzorowanie i doskonalenie systemu jakości według normy PN-EN ISO* 9001:2009 w oparciu o podejście procesowe z uwzględnieniem specyfiki sektora MŚP, Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 2010.
- 8. Grudowski P., Leseure- Zajkowska E., *LSS Plutus Lean Six Sigma dla małych i średnich przedsiębiorstw*, Wydawnictwo WNT, Warszawa 2013.
- 9. Imai M., Kaizen: klucz do konkurencyjnego sukcesu Japonii, Wydawnictwo MT Biznes, Warszawa 2007.
- 10. Imai M., Gemba kaizen: zdroworozsądkowe, niskokosztowe podejście do zarządzania, Wydawnictwo MT Biznes, Warszawa 2006.
- 11. Łuczak J., Matuszak-Flejszman A., Metody i techniki zarządzania jakością, Quality Progress, 2007.
- 12. Szczepańska K, *Kompleksowe zarządzanie jakością TQM : przeszłość i teraźniejszość*, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2010.
- 13. Szczepańska K., *Zarządzanie jakością: koncepcje, metody, techniki, narzędzia*, Wydawnictwo Politechniki Warszawskiej, Warszawa 2015.
- 14. Zymonik Z., *Koszty jakości w zarządzaniu przedsiębiorstwem*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2003.

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Dobrowolska, anna.dobrowolska@pwr.edu.pl

#### **SUBJECT CARD**

Name in Polish: Zarządzanie logistyczne w przedsiębiorstwie

Name in English: Logistics Management in Enterprise Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviors and Decisions

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0012

**Group of courses: NO** 

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	30		60		
Form of crediting	Crediting with grade		Crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,0		0,7		

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic Management and Marketing

#### **SUBJECT OBJECTIVES**

- C1 Knowledge the essence, objectives and issues of logistics operations management in enterprise.
- C2 Understanding the essence and principles of functioning of the market and efficiency oriented operations management systems, using logistics approach to material flow management.

#### SUBJECT LEARNING OUTCOMES

#### Relating to knowledge:

- PEU\_W01 Knows the main definitions, objectives and strategies of operations activity logistics management.
- PEU\_W02 Has the basic knowledge in structure and functioning of production systems
- PEU\_W03 Knows the essence and principles of classical and modern systems of operations activity logistics management in an enterprise

#### **Relating to skills:**

- PEU\_U01 Can identify and diagnose of decisions issues of operations and logistics activity in enterprise.
- PEU\_U02 Can analyze and evaluate of functioning of production and servise logistics management systems
- PEU\_U03 Can formulate alternative solutions in logistics management of operations activity.

#### **Relating to social competences:**

- PEU\_K01 Understands the role and importance of logistics and operations activity in totality of enterprise activity.
- PEU\_K02 Understands the role and importance of modern production logistics management systems in increasing of market effectiveness and operational efficiency of enterprises.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Logistics Management in Enterprise Introduction	3
Lec 2	Product. Process. Layout. Productions Environments	2
Lec 3	Sales and Operations Planning SOP (Aggregate Planning)	3
Lec 4	Parameters and Proceedings of Short Term Planning	2
Lec 5	Stock Control Systems SCS	4
Lec 6	Logistics Management in MRP/MRPII System	4
Lec 7	Logistics Management in JIT/LP Strategy	4
Lec 8	Logistics Management in OPT/TOC Approach	4
Lec 9	Credit for a course	2
	Total hours	30
	Total hours  Laboratory	30 Number of hours
Lab 1		
Lab 1 Lab 2	Laboratory	Number of hours
	Laboratory  OPT Simulation Game - Sales and Production Control	Number of hours
Lab 2	Laboratory  OPT Simulation Game - Sales and Production Control  OPT Simulation Game - Sales and Production Planning  Aggregate Production Planning using POM for Windows	Number of hours 3 2
Lab 2 Lab 3	Laboratory  OPT Simulation Game - Sales and Production Control  OPT Simulation Game - Sales and Production Planning  Aggregate Production Planning using POM for Windows - Pure and Mixed Planning Strategy  Aggregate Production Planning using POM for Windows	Number of hours  3 2 2

Lab 7	Credit for a course	2			
	Total hours	15			
	TEACHING TOOLS USED				
	ecture: multimedia presentation aboratory classes: training software, laboratory reports				

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W02, PEU_W03, PEU_U03, PEU_K02	attendance at classes exercises and points limit
P	PEU_W01, PEU_W02, PEU_W03, PEU_U01, PEU_U02, PEU_U03, PEU_K01, PEU_K02	test note
C (lecture) $-P-1$		

 $C ext{ (lecture)} = P = 1$  $C ext{ (laboratory)} = F1 = 1$ 

#### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Balter J.F., Zbroja T., *Zarządzanie logistyczne w przedsiębiorstwie*, Oficyna Wydawnicza CL Consulting i Logistyka, Wrocław 2003.
- [2] Waters D., Zarządzanie operacyjne. Towary i usługi, PWN, Warszawa 2001.
- [3] Zbroja T., Zarządzanie produkcją. Podręcznik, WSO WL, Wrocław 2015.

### **SECONDARY LITERATURE:**

- [1] Bozarth C.C., Handfield R.B., Wprowadzenie do zarządzania operacjami i łańcuchem dostaw: kompletny podręcznik logistyki i zarządzania dostawami, Helion, Gliwice 2007.
- [2] Heizer J., Render B., *Operations Management*, Pearson Education, Inc., Upper Saddle River, New Jersey 2006.
- [3] Zarządzanie produkcją w praktyce, Wydawnictwo "Wiedza i Praktyka", Warszawa 2006.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jan Schneider, jan.schneider@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie pracownikami Name of subject in English: Personnel management Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0013

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	
Number of hours of total student workload (CNPS)	60			30	
Form of crediting	Crediting with grade			Crediting with grade	
For group of courses mark (X) final course	-			-	
Number of ECTS points	2			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4			0,7	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management o an enterprise.

#### SUBJECT OBJECTIVES

- C1 To provide the students with the knowledge about the essence of personnel function and the personnel management process, as well as their relations with other elements of the enterprise management system. To provide the students with the knowledge about the philosophy, policy and strategy of personnel function as well as the human resource planning.
- C2 To provide the students with the knowledge about the recruitment, selection and introduction to the work.
- C3 To provide the students with the knowledge about the periodical employee evaluation system.
- C4 To provide the students with the knowledge about the motivation and rewarding of employees.
- C5 To provide the students with the knowledge about the shaping the employees development and the career paths.
- C6 To provide the students with the knowledge about the building and functioning of the teams in the organization. To understand the principles of communication in the organization.
- C7 Shaping and developing the ability of the assessment of human resources and new approaches relating to the personnel management in the organization.
- C8 Shaping and developing the ability of improving the existing or design new solutions for selected

elements of the personnel function.

C9 Shaping the competences of planning, initiating and implementing the changes in the organization. C10 Shaping the competences of cooperation in team forms of works and taking the responsibility for this work.

#### SUBJECT EDUCATIONAL EFFECTS

#### relating to knowledge:

- PEU\_W01 Has a knowledge about the essence of personnel function and the personnel management process. Understands the relations of the personnel management with other elements of the enterprise management system.
- PEU\_W02 Understands the essence of philosophy, policy and strategy of personnel function as well as knows the rules of the human resource planning.
- PEU\_W03 Has a knowledge about the recruitment, selection and introduction to the work processes.
- PEU\_W04 Knows the essence and principles of periodical employee evaluation.
- PEU\_W05 Has a knowledge about motivation and rewarding of employees.
- PEU\_W06 Understands the rules of shaping the employees development and the career paths.
- PEU\_W07 Knows the basic rules of building and functioning of the teams in the organization, as well as the factors influencing on the teams efficiency. Knows the roles of the leader and the team members in the organization. Knows the principles of communication in the organization.

#### relating to skills:

- PEU\_U01 Can evaluate the human resources and the methods of operations in field of human resources in an organization.
- PEU\_U02 Can improve the existing or design new solutions for selected elements of the personnel function.

#### relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization, as well as to participate in their planning and implementing in the organization.
- PEU\_K02 Is prepared to cooperate and work in team forms of works. Can accurately identify their own priorities and work in partnership with others.
- PEU\_K03 Is aware of the responsibility for own work. Is ready to comply with the priorities set by others and take responsibility for own work or as a team performed the task.

PROGRAMME CONTENT					
	Lectures	Number of hours			
Lec1	Introduction, overciew the lecture.	1			
Lec1	The concept and essence of personnel function, goals of personnel management, conditions, meaning and the evolution of personnel function.	1			
Lec2	Personnel Function in the context of the organisation management system.  Task structure and the scope of personnel management process.	2			
Lec3-4	Philosophy, policy and strategy of personnel function. Comparative analysis: Human Resources Management (HRM) and Personnel Management (PM). Strategic aspects of Human Resources Management.	4			
Lec5	Human Resources Planning. Goals, conditions and stages of planning. Personnel Audit. Realisation control – personnel controlling.	2			
Lec6	Recruitment, selection and introduction to the work processes. Competences management in personnel management.	2			
Lec7	Aims and concepts of employee evaluation. Periodical Employee	2			

	Evaluation System (SOOP). Criteria, methods and rules of the employee evaluation. Effectiveness of the SOOP.	
Lec8	Colloquium (1).	2
Lec9-	Remuneration policy. Aims and principles of wage differentiation. The essence and goals of work evaluation. Criteria and methods of the work evaluation.	4
Lec11	Forms of remuneration. Functions of remuneration. Basic wages, bonuses and other elements of wages.	2
Wy12	Workforce potential. Influencing the employee development. Trainings; goals, types, evaluation of effectiveness. Career paths.	2
Wy13	The principles of building and functioning the teams in an organization, factors influencing on the teams efficiency. Roles of the leader and the team members in the organization.	2
Wy14	The principles and the systems of communication in the organization. The ffeatures an efficient communication process.	2
Wy15	Summary of the lecture. Colloquium (2).	2
	Total hours	30
	Project	Number of hours
	Explanation of the topic of the project, discussion of the project evaluation conditions. Creation of the project teams.	1
Proj2	Work in project teams – consulting the choice of the subject area and methods of preparing an offer of the research expertise. Consulting the substantive issues, evaluation of student progress.	2
-	The first plenary session - presentation of the offers of the research expertise (an oral presentation and submission of a written statement). Work in project teams – consulting the substantive issues, evaluation of student progress.	2
Proj4	Work in project teams – consulting the substantive issues in the scope of diagnosis of human resources and approaches in the area of personnel, evaluation of student progress.	2
	Work in project teams – consulting the substantive issues in the scope of improvement and development of specific solutions of selected elements of the personnel function, evaluation of student progress. Explanation of the methods of project presentation.	2
Proj6- 7	The second plenary session: presentations of the projects, evaluation of presentations, discussion with students. Overview of written reports with the findings of the diagnosis and the proposals for design.	4
D 10		2
Pro <sub>J</sub> 8	Summary of the project. Final assessment.	<u> </u>

## TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations N2. Consultations
- N3. Multimedia presentations prepared by students N4. Discussion of selected issues

- N5. Self-study –final assesment preparation N6. A written report an analysis of the case study

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01, PEU_W02 PEU_W03, PEU_W04 PEU_K03	Colloquium 1.
F2	PEU_W05, PEU_W06 PEU_W07, PEU_K03	Colloquium 2.
F3	PEU_U01, PEU_K02, PEU_K03	Submission and presentation of the offers of the research expertise
F4	IPEL KOLPEL KOL	Project of solutions in the scope of personnel management in a written form.
F5	PEU_U01, PEU_U02 PEU_K01, PEU_K02, PEU_K03	Multimedia presentation of the project of solutions in the scope of personnel management prepared by students.
F6	PEU_U01, PEU_U02 PEU_K01, PEU_K02, PEU_K03	Activity on the project. Participation in the discussion.

P(lecture) = 0.5\*F1 + 0.5\*F2

P(project)=0,1\*F3+0,6\*F4+0,2\*F5+0,1\*F6

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- 1. Armstrong M., Zarządzanie zasobami ludzkimi, Oficyna Wolters Kluwer, Warszawa 2011.
- 2. Listwan T. (red.), Zarządzanie kadrami, CH Beck, Warszawa 2006.
- 3. Pocztowski A., Zarządzanie zasobami ludzkimi: strategie procesy metody, PWE, Warszawa 2003
- 4. Kostera M., Zarządzanie personelem, PWE, Warszawa 2010.

#### SECONDARY LITERATURE:

- 1. Oleksyn T., Zarządzanie zasobami ludzkimi w organizacji, Oficyna Wolters Kluwer Polska, Warszawa 2011.
- 2. Moczydłowska J., Zarządzanie zasobami ludzkimi w organizacji: podręcznik akademicki, Difin, Warszawa 2010.

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, agnieszka.bienkowska@pwr.wroc.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Projektami Name of subject in English: Project Management Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviors and Decisions

Profile: academic

Level and form of studies: 1stlevel studies, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0020

Group of courses: NO

-					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	15			
Number of hours of total student workload (CNPS)	60	30			
Form of crediting	Examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	2	1			
including number of ECTS points for practical (P) classes		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,4	0,7			

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Basics of management, organisational methods
- 2. Quantitative methods research operational, basics of probability calculus
- 3. Quality management basics
- 4. Accounting basics
- 5. Basics of human resources management

#### **SUBJECT OBJECTIVES**

- C1 Transfer to students of knowledge on project management importance in business, PM professional organizations, and main methods of project initializing, planning, realization, control and closing
- C2 Acquisition by students practical skills of methods, techniques and tools of PM use M

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Knows the specificity of respective project phases management

PEU\_W02 Knows specific PM tools

relating to skills:

PEU\_U01 Knows resolve respective project phases management problems

PEU\_U02 Knows use main tools of management ...

relating to social competences:

PEU\_K01 Understands the essence of PM and their role in the contemporary World

PEU\_K02 He is conscious of importance of professional organizations for PM development in Poland and the World

PEU\_K03 He is conscious of existing barriers and constraints while implementing PM

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Introduction to PM – basic notions. Classical vs adaptive of PM management	2
Lec 2	Projects analysis (environment, stakeholders). Start of projects	2
Lec 3	Main principles of projects planning	2
Lec 4	Scope of project planning: scope definition, Work Breakdown Structure, work package	2
Lec 5	Project life cycle, project's phases, typical life cycles of different kinds of projects	2
Lec 6	Activities planning net planning methods, project schedule	2
Lec 7	Project resources planning, Responsibility Assignment Matrix, resources balancing, project cost planning	2
Lec 8	Risk in project management	2
Lec 9	Project quality management. Communication in project management	2
Lec 10	Earned Value method of cost project control	2
Lec 11	Leadership	2
Lec 12	Engagement and motivation	2
Lec 13	Team work	2
Lec 14	Resistance management	2
Lec 15	Conflict and crisis management in project team	2
	Total hours	30
	Classes	Number of hours
C 1	Introduction, teams building, projects definition	1
C 2	Stakeholders analysis	2
C 3	Project Charter	2
C 4	Work Breakdown Structure	2
C 5	Critical Path Method	2
C 6	Risk Management Plan	2
C 7	Application of Earned Value method	2
C 8	Skills test	2
	Total hours	15

#### TEACHING TOOLS USED

- N1 Computer
- N2 Projector
- N3 Blackboard
- N4 Paper shifts
- N5 Attendance and activity
- N6 Team work

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_U01, PEU_U02	Classes preparation, activity, team work quality
F2	PEU_U01, PEU_U02	Skills verification
F3	PEU_W01, PEU_W02, PEU_K01, PEU_K02, PEU_K03	Examination
P1 = 0,2*F1 + 0,8*F2 P2 = F3		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Frame J.D., Zarządzanie projektami w organizacjach, WIG-PRESS, Warszawa, 2001
- [2] Wysocki Robert K., McGarry Rudd, Efektywne zarządzanie projektami, Wyd. III, Helion, 2005
- [3] Berkun S., Sztuka zarządzania projektami, Helion, 2006
- [4] Lock D., Podstawy zarządzania projektami, PWE, 2003
- [5] Young T.L., Skuteczne zarządzanie projektami, ONE Press, 2006

#### SECONDARY LITERATURE:

- [1] NCB National Competence Baseline (Polskie Wytyczne Kompetencji IPMA, wersja 3.0). http://www.spmp.org.pl/certyfikacja-ipma/wytyczne-ipma-ncb
- [2] Zarzadzanie projektami, Podrecznik, Kraków 2009, pm2pm
- [3] Darnall R.W., Najwspanialszy projekt świata, DIFIN, Warszawa, 2002
- [4] [4] Highsmith Jim, APM: Agile Project Management, Wydawnictwo MIKOM, Warszawa 2005.
- [5] Manifesto for Agile Software Development, http://agilemanifesto.org/
- [6] Goldratt E.M., Łańcuch krytyczny, Werbel, Warszawa, 2000

#### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr hab inż. Agata Klaus-Rosińska, prof. uczelni agata.klaus-rosinska@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie Strategiczne Name of subject in English: Strategic management Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM0021

Group of courses: NO

•	ı	ı	ı	1	
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30			15	
Number of hours of total student workload (CNPS)	60			30	
Form of crediting	Examination			crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points	2			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,			0,7	

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about management

#### **SUBJECT OBJECTIVES**

- C1 Obtaining basic knowledge of the strategic context of the enterprise's activity
- C2 Knowledge about external and internal conditions influencing competitiveness of the company
- C3 Knowledge about strategic management process
- C4 Acquiring practical skills of the strategic position analysis
- C5 Acquiring practical skills of the strategic choice at the corporate and business level

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 has basic knowledge about strategic management

PEU\_W02 knows strategic context of the enterprise's activity

PEU\_W03 identifies basic stages of strategic management process

PEU\_W04 knows strategic analysis methods

PEU\_W05 has knowledge about different types of the strategies

. . .

## relating to skills:

PEU\_U01 can carry out strategic analysis of the company and its environment

PEU\_U02 can formulate alternative strategies at the organization and domain level

PEU\_U03 can choose the right methods and tools for implementing the strategy

. . .

relating to social competences:

PEU\_K01 is aware of the need to obtain information about enterprise's

PEU\_K02 is aware that the manager's activity is based on continuous identification, analysis and resolution of strategic problems

#### PROGRAM CONTENT

	Lectures		
Lec 1	The genesis of strategic management	hours 2	
Lec 2	The essence and concept of strategy	2	
Lec 3	Strategic management schools	2	
Lec 4	Strategic management process	2	
Lec 5	Business concept - company mission (concept)	2	
Lec 6	Functions and role of the company's mission	2	
Lec 7	Macro environment analysis - the essence, methods and tools	2	
Lec 8	Microenvironment analysis - the essence, methods and tools	2	
Lec 9	Resource analysis - the essence, methods and tools	2	
Lec 10	Competition analysis	2	
Lec 11	Global level strategy options	2	
Lec 12	Business level strategy options	2	
Lec 13	Strategic goals system	2	
Lec 14	Strategy implementation – Balance scorecard	2	
Lec 15	Strategic control	2	
	Total hours	30	
	Project	Number of hours	
Proj 1	Development of mission and vision	2	
Proj 2	Macro environment analysis	2	

Proj 3	Microenvironment analysis	2
Proj 4	Organization resources analysis	2
Proj 5	Identification of strategic problems using the SWOT matrix	1
Proj 6	Analysis and selection of a strategic option at the enterprise level	2
Proj 7	Analysis and selection of a strategic option at the domain level	2
Proj 8	Development of implementation tools for the selected strategy	2
	Total hours	15

#### TEACHING TOOLS USED

- N1. Traditional lecture using multimedia presentation
- N2. Questions asked to students during the lecture
- N3. Case studies
- N4. Discussion of selected problems
- N5. Independent analysis and assessment of the strategic position of the actual organization
- N6. Own work independent studies: preparation for classes and preparation for the exam
- N7. Presentation prepared by students

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_U01-3	Ongoing checking of project progress
F2	PEU_U01-3, PEU _K01-4	Evaluation of the developed solutions
P1	The project grade includes F	F1 (50%), F2 (50%)
F4	PEU_W01-5	Exam
P2	The lecture grade includes F	74
С		

## PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- 1. Gierszewska G., Olszewska B., Skonieczny J., "Zarządzanie strategiczne dla inżynierów" PWE Warszawa 2013
- 2. Moszkowicz M., Zarządzanie Strategiczne systemowa koncepcja biznesu, PWE, Warszawa 2005
- 3. Steinmann H.G., Schreyogg G., Zarządzanie podstawy kierowania przedsiębiorstwem. Koncepcje funkcje przykłady, Oficyna wydawnicza Politechniki Wrocławskiej, Wrocław 2001
- 4. Porter M., Strategia konkurencji metody analizy sektorów i konkurentów, PWE, Warszawa 1999
- 5. Obłój K., Strategia organizacji, PWE, Warszawa 1998

## SECONDARY LITERATURE:

1. Krupski R, Zarządzanie strategiczne, Wyd. AE Wrocław 2003

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Piotr Kubiński, piotr.kubiński@pwr.edu.pl

#### SUBJECT CARD

Name in Polish: Zarządzanie wartością przedsiębiorstwa

Name in English: Value Based Management Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviour and Decisions

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM0028

Group of courses: NO

•	Lecture	Claccec	Laboratory	Project	Seminar
	Lecture	Classes	Laboratory	Troject	Schillar
Number of hours of organized classes in University (ZZU)	15			15	
Number of hours of total student workload (CNPS)	30			30	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	1			1	
including number of ECTS points for practical (P) classes				1	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,7			0,7	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1 Knowledge of methods of time value of money calculation
- 2 Knowledge of the basic financial statements
- 3 Ability to perform simple mathematical calculations

#### SUBJECT OBJECTIVES

- C1 Concept of organization value and the factors influencing the value
- C2 Understanding the purpose and function of the organization valuation
- C3 Knowledge of methods of organization valuing and use them in the management process

#### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 knows the objectives and functions of the valuation

PEU\_W02 knows methods of company valuation

PEU\_W03 knows the tools of value pricing and their use in management

relating to skills:

PEU\_U01 understand the objectives of the company value pricing

PEU\_U02 can use assets valuation methods to company valuation

PEU\_U03 can develop a financial model and prepare a company value by income methods, including DCF

relating to social competences:

PEU\_K01 Is conscious the role of company value in the economy

	PROGRAMME CONTENT				
	Lectures	Number of hours			
Lec 1	Introduction. The concept of value and the company value	2			
Lec 2	The objectives and functions of the pricing process	2			
Lec 3	Classification of the factors of values	2			
Lec 4	Classification of methods of pricing	2			
Lec 5	Assets and Comparative Methods	2			
Lec 6	Income methods	2			
Lec 7	Value based management process	2			
Lec 8	test	1			
	Total hours	15			

Form of classes - project		
Proj 1	Introduction	2
Proj 2	Valuation of the selected company by assets method	6
Proj 3	Valuation of the selected company by DCF method	6
Proj 4	Presentation of results	1
	Total hours	15

# TEACHING TOOLS USED N1. Multimedial lecture

N2. Problems resolving

N3. Computational exercises

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Learning outcomes number	Way of evaluating learning outcomes achievement
P1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Test
Pr1	PEU_W01 ÷ PEU_W03, PEU_U01 ÷ PEU_U03, PEU_K01	Project evaluation
P1=1		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa, 1995.
- [2] ICKIEWICZ J., Strategia finansowania przedsiębiorstwa, Poltext, Warszawa, 1993.
- [3] WILIMOWSKA Z., *Metodyka budowy efektywnego portfela projektów inwestycyjnych*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 1997.
- [4] WILIMOWSKA Z., WILIMOWSKI M., *Sztuka zarządzanie finansami*., Bydgoszcz, TNOiK OPO, 2001

#### SECONDARY LITERATURE:

- [1] [JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting, AE, Wrocław 1994.
- [2] Pluta W., Strategie inwestowania, Wyd. PLACET, Warszawa, 1995.
- [3] Levy H., Sarnat M., Capital investment and Financial Decisions, Prentice Hall, Hrertforshire, 1994
- [4] LUMBY S., *Investment Appraisal and Financial Decisions*, London, Chapman & Hall, 1996
- [5] Cwynar A., Systemy VBM i zysk ekonomiczny: projektowanie, wdrażanie, stosowanie, 2010
- [6] Damodaran A., Finanse korporacyjne: teoria i praktyka 2007

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, <u>Tadeusz.dudycz@pwr.edu.pl</u>

### **SUBJECT CARD**

Name of subject in Polish: Zintegrowane systemy informatyczne zarządzania Name of subject in English: Integrated Management Information Systems

Main field of study (if applicable): Management

Specialization (if applicable): Managerial Behaviors and Decisions

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM0022

Group of courses: NO

	-	G1	· ·		~ .
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1		0,7		

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

- 1. theory of organisation and management
- 2. essentials of enterprise management
- 3. basics of computer science

# **SUBJECT OBJECTIVES**

- C1 Knowledge of integrated management information systems (IMIS)
- C2 Ability to use ERP IMIS
- C3 Knowledge of the implementation of IMIS

### SUBJECT EDUCATIONAL EFFECTS

### relating to knowledge:

- PEU\_W01 knowledge of MIS classifications
- PEU\_W02 knowledge of rules of MIS integration
- PEU W03 knowledge of basic functions in business areas of MIS
- PEU\_W04 knowledge of MIS history and new approaches
- PEU\_W05 knowledge of the MIS implementation in the organization
- PEU\_W06 knowledge of rules of selecting MIS
- PEU\_W07 knowledge of human aspects of the MIS implementation
- PEU\_W08 knowledge of gathering requirements before the MIS implementation (e.g. business process modeling)
- PEU\_W09 knowledge of risk factors in the MIS implementation relating to skills:
- PEU\_U01 ability to classify a MIS
- PEU\_U02 ability to find differences between MRP MRPCL MRPII MRPIII ERP ERPII
- PEU\_U03 ability to plan implementation of MIS
- PEU\_U04 ability to find and minimalize risk factors during the MIS implementation
- PEU\_U05 ability to set goals for the MIS implementation
- PEU\_U06 ability to plan trainings for users of MIS
- PEU\_U07 ability to analyze functionality of ERP system
- PEU\_U08 ability to model business process
- PEU\_U09 ability to prepare and present own approach to the MIS implementation

# relating to social competences:

- PEU\_K01 ability to searching for information and analyzing
- PEU\_K02 developing ability to think independently and creatively
- PEU\_K03 understand the importance of business requirements in the design and implementation of information systems
- PEU\_K04 developing entrepreneurial thinking
- PEU\_K05 developing the skills of group working

### PROGRAMME CONTENT

	Form of classes - lecture	Number of hours
Lec 1	Introduction	2
Lec 2	Management Information Systems	2
Lec 3	Typology of informational systems at the angle of primary criterions. Types MPR II/ERP.	2
Lec 4	APICS standards (MRP, MRPII)	2
Lec 5	Classification of integrated systems according to APICS standards (MRP, MRP-CL, MRPII, MRPII+/MRPIII)	2
Lec 6	ERP systems	2
Lec 7	ERP II systems	2
Lec 8	CRM and PRM systems	2
Lec 9	Service Oriented Architecure (SOA) and mobile technologies in management	2
Lec 10	General characteristics of management information system sets	2

Lec 11	Informatics strategies of enterprise management	2				
Lec 12	Choosing and implementation of system set	2				
Lec 13	Training and coaching during IMIS implementation	2				
Lec 14	Implementation risks	2				
Lec 15	Conclusion	2				
	Total hours	30				
	Form of classes - class	Number of hours				
	Form of classes - laboratory	Number of hours				
Lab 1 Iı	ntroduction to ERP system	2				
Lab 2	eneral settings	2				
Lab 3 C	alculation of product's costs	2				
Lab 4 P	Lab 4 Purchasing orders (PO)					
Lab 5 V	Vork orders (WO)	2				
Lab 6	IRP planning	2				
Lab 7	nalysis of selected area of ERP system	2				
Lab 8 C	onclusion	1				
Т	otal hours	15				
	TEACHING TOOLS USED					
N1. Tra	aditional lecture					

- N2. Using MIS tool
- N3. Work with the teacher
- N4. Self-learning for labs N5. Self-learning for lectures

# EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W09 PEU_U01–PEU_U06 PEU_K01 PEU_K03	Exam (test)
F2	PEU_U07 -PEU_U09 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the seminar and lab work
C = F1 + F2		

PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Jerzy Kisielnicki: MIS Systemy informatyczne zarządzania, PLACET, 2009
- [2] Zbigniew Klonowski: Systemy informatyczne zarządzania przedsiębiorstwem : modele rozwoju i właściwości funkcjonalne, Oficyna Wydawnicza Politechniki Wrocławskiej, 2004
- [3] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [4] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [5] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

# SECONDARY LITERATURE:

[1] Computerworld magazine

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Warsztat analityczny (badania jakościowe) Name of subject in English: Analytical workshop (qualitative data)

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

**Kind of subject: obligatory** 

Subject code: W08ZZZ-SM8025P

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				30	
Number of hours of total student workload (CNPS)				60	
Form of crediting				Crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				2	
including number of ECTS points for practical classes (P)				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,4	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about methods of research in social sciences.

# **SUBJECT OBJECTIVES**

C1 Familiarizing students with different approaches to knowledge and information analysis C2 Acquiring skills in qualitative data analysis

### SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU\_U01 Ability to plan and execute the research activities with the use of different analytical approaches

PEU\_U02 Ability to use qualitative methods to gather problem relevant data and information

PEU\_U03 Ability to analyse and report research findings

	Project			
Proj 1	What is qualitative research?	2		
Proj 2	Choice of research area	2		
Proj 3	Qualitative research design and ensuring quality	2		
Proj 4	Methods of qualitative analysis (thematic, discourse, narrative)	2		
Proj 5	Performing qualitative interviewing and focus groups	2		
Proj 6	Data transcription	2		
Proj 7	Results discussion and analysis	2		
Proj 8	Observation and fieldwork	2		
Proj 9	Results discussion and analysis	2		
Proj 10	Collection of documented material and artifacts	2		
Proj 11	Results discussion and analysis	2		
Proj 12	Online ethnography	2		
Proj 13	Results discussion and analysis	2		
Proj 14	Writing research report	2		
Proj 15	Final assessment	2		
	Total hours	30		
	TEACHING TOOLS USED			
N1. Assig				

N4. Presentations

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1 Assignments	PEU_U01,	Discussion
F2 Presentation	PEU_U02	Presentation assessment
F3 Written report	PEU_U03	Grade
P = F1 + F2 + F3		

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Dennis Howitt, Introduction to Qualitative Research Methods in Psychology, 3rd Edition, Pearson, 2016
- [2] Corrine Glesne, Becoming Qualitative Researchers: An Introduction, 5th Edition, Pearson, 2016
- [3] Helle Neergaard, John P. Ulhøi, Handbook of Qualitative Research Techniques and Analysis in Entrepreneurship, Edward Elgar Publishing, 2017
- [4] John W. Creswell, Cheryl N. Poth, Qualitative Inquiry and Research Design. Choosing Among Five Approaches, SAGE 2017

# SECONDARY LITERATURE:

- [1] Norman K. Denzin, Yvonna S. Lincoln, The SAGE Handbook of Qualitative Research, 5th Edition, 2017
- [2] Barney G Glaser, Anselm L Strauss, Discovery of Grounded Theory: Strategies for Qualitative Research, Routlege, 2017

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Dzidowski, adam.dzidowski@pwr.edu.pl

# SUBJECT CARD

Name of subject in Polish: Podstawy nauk społeczych Name of subject in English: Basis of social science Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8001W

Group of courses: NO

_				_	
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	60				
Form of crediting	crediting with grade				
For group of courses mark (X) final course					
Number of ECTS points	2				
including number of ECTS points for practical classes (P)	0				
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_,.				

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### **SUBJECT OBJECTIVES**

C1 To acquaint students with fundamental and contemporary concepts in the field of social sciences.

C2. To acquaint students with the challenges, consequences and opportunities arising from the concept of management and quality sciences as social sciences.

# SUBJECT EDUCATIONAL EFFECTS

In the field of knowledge:

PEU\_W01 has in-depth, systematized knowledge of key concepts and the latest concepts in the field of social sciences

PEU\_W02 has a systematized, in-depth knowledge of basic social processes, conflicts and changes characteristic of modern societies

PEU\_W03 knows the basic research tools used in social sciences

In the field of skills:

PEU\_U01 identifies and classifies the basic terminology and theories dominating within the disciplines in social sciences

PEU\_U02 is able to use the basic research tools in the field of social sciences and knows the rules of their construction

In the field of social competences:

PEU\_K01 is aware of the importance of social processes for the functioning of modern organizations PEU\_K02 shows readiness to take into account social mechanisms to analyze and interpret social and professional attitudes

PROGRAMME CONTENT						
	Lecture No					
Lec1-2	Introduction - the contemporary face, subject, condition and challenges of social sciences	4				
Lec3-5	Social psychology and business psychology - the most important contemporary concepts-individual, perception, personality, competencies and skills, quality of life, social influence, meaningfulness of work, handling demanding interpersonal interactions, interpretive approach etc.)	6				
Lec6-8	Sociology and sociology of organization - the most important contemporary concepts (group, hierarchy and structure, dependence, power and subjectivity in social and organizational structures, neo-institutional theory, institutional practices, social capital, social networks, trust etc.)	6				
Lec9-11	Anthropology and ethnography of the organization - the most important contemporary concepts (culture, metaphors and archetypes, rituals, hidden meanings, ethnographic study of the organization, etc.)	6				
Lec12	Social science tools. Research methods and techniques	2				
Lec13-14	Challenges and opportunities of management and quality sciences as social sciences	4				
Lec 15	Final test	2				
	Total hours	30				

TEACHING TOOLS USED				
V1. multimedia techniques (presentation)				
V2. discussion				
N3 case studies				

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at	Learning outcomes code	Way of evaluating learning outcomes achievement					
semester end)							
P	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_U02 PEU_K01 PEU_K02	assessment on the basis of final test					
	PRIMARY AND SECONDARY LITERATURE						

# PRIMARY LITERATURE:

- [1] Zulke J.H, Kirley J.P.: Through the Eyes of Social Science, Prospect Heights: Waveland Press 2002
- [2] Chiapello E.: Management Tools. A Social Sciences Perspective, Patrick Gilbert, IAE Paris 2019
- [3] Amann W., Dierksmeier C., von Kimakowitz E., Pirson M., Spitzeck H.: Humanistic Management in Practice, Springer Palgrave Macmillan, 2014

# SECONDARY LITERATURE:

- [1] Elgin H., Colander D.: Social Science: An Introduction to the Study of Society, Allyn and Bacon, Boston, 2002
- [2] Cialdini R.: Influence: Science and Practice, 5th edition, Pearson, 2008
- [3] Handel M.J. (ed.): The Sociology of Organizations: Classic, Contemporary, and Critical Readings (Theory, Culture & Society, Sage publications ltd, 2021

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jagoda Mrzygłocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Etyka biznesu Name of subject in English: Business ethics Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8034

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical classes (P)	0				1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	- , -				0,7

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### **SUBJECT OBJECTIVES**

- C1. To deliver the basic conceptual foundations of business ethic theories.
- C2. To explore the ethical issues and challenges typically encountered by the company in dealing with different stakeholder groups.
- C3. To encourage making thoughtful judgments when faced with ethical complexity in business practice.

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 – student has a basic knowledge about major theories of ethics

PEU\_W02 – student reasons ethical issues and challenges typically encountered by the company in dealing with different stakeholder groups

relating to skills:

PEU\_U01 – student analyzes and evaluates management issues using major theories of ethics PEU\_U02 - student identifies and analyzes ethical issues and challenges typically encountered

by the company in dealing with different stakeholder groups relating to social competences:

PEU\_K01 – student is prepared to behave in a professional and ethical manner, to recognize and formulate the ethical dilemmas associated with his/her own and others' work; to seek appropriate solutions and opportunities to correct deficiencies in their attitudes and behaviors in the workplace

	behaviors in the workplace			
	PROGRAMME CONTENT			
	Lecture	Number of hours		
Lec 1	Framing business ethics	2		
Lec 2	Ethical theories: egoism, utilitarianism, ethics of duties, ethics of rights & justice	2		
Lec 3	Ethical theories: virtue ethics, feminist ethics, discourse ethics, postmodern ethics	2		
Lec 4	Contextualizing business ethics: the corporate citizen and its stakeholders.  Trade-offs and conflicts between different stakeholders groups	2		
Lec 5	Managing business ethics	2		
Lec 6	Codes of ethics	2		
Lec 7	Sustainability - a key goal for business ethics	2		
Lec 8	Lec 8 Final assessment			
	Total hours	15		
	Seminar	Number of hours		
Semin 1	Organizational meeting	1		
Semin 2	Consumers and business ethics	2		
Semin 3	Employees and business ethics	2		
Semin 4 Shareholders and business ethics				
Semin 5	emin 5 Suppliers and competitors, and business ethics			
Semin 6	Finance and business ethics	2		
Semin 7	Civil society and business ethics	2		
Semin 8	Government, regulation and business ethics	2		
	Total hours	15		

# **TEACHING TOOLS USED**

- N1. Traditional lecture with multimedia presentations
- N2. Case studies
- N3. Students' presentations
- N4. Discussion of selected issues
- N5. Self-study: final assessment preparation

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming	Learning outcomes code	Way of evaluating learning outcomes
during semester), P –		achievement
concluding (at semester end)		
F1	PEU_W01-W02, PEU_K01	students' involvement during lecture
F2	PEU_W01-W02	written assessment
F3	PEU_U01-U02, PEU_K01	students' presentation
F4		students' involvement during case study solving

P1 = 0.1\*F1 + 0.9\*F2

P2 = 0.7\*F3 + 0.3\*F4

# PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Crane A., Matten D.: Business ethics, Oxford University Press, New York 2016.
- [2] Crane, A., McWilliams, A., Matten, D., Moon, J., & Siegel, D. S. (Eds.). The Oxford handbook of corporate social responsibility, Oxford Handbooks, 2008.

# SECONDARY LITERATURE:

- [3] Chrysides G.D., Kaler J.H.: Essentials of business ethics, McGrawhill, 1996.
- [4] Crane A., Matten D., Glozer, S., & Spence (Eds.), Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization, Oxford University Press, 2019.
- [5] Ferrell O. C., Business ethics: ethical decision making and cases, Houghton Mifflin Co., New York 2005.
- [6] Gini A. [ed.], Case studies in business ethics, Pearson Pretice Hall, Upper Saddle River 2005.
- [7] Giacalone R.A., Jurkiewicz C.L., Dunn C. (Eds.), Positive psychology in business ethics and corporate responsibility, Information Age Pub., Greenwich 2005.
- [8] Murphy P.E., Laczniak G.R., Marketing ethics: cases and readings, Pearson Prentice Hall, Upper Saddle River 2006.
- [9] Sternberg E.: Just Business, Oxford University Press, New York 2002.
- [10] Journals like Journal of Business Ethics

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Sałamacha anna.salamacha@pwr.edu.pl

SUBJECT CARD

Name of subject in Polish: Coaching Name of subject in English: Coaching

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8017S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					50
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. basic knowledge in the field of human resource management
- 2. basic knowledge of social sciences

### **SUBJECT OBJECTIVES**

- C1. To acquaint students with the genesis, types and applications of coaching.
- C2. Raising competences in the area of social skills (communication, empathy and understanding, giving feedback, assertiveness) as the basis for coaching support.
- C3. Developing the ability to apply coaching practices in difficult team and managerial situations.

# SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Has in-depth knowledge of the area of coaching. Knows what the coaching style of management is characterized by. Indicates individual coaching models. Knows the basic features of the contract and the way of developing a coaching session.

PEU\_W02 Has in-depth knowledge of the goals and elements of the coaching process.

relating to skills:

- PEU\_U01 Has the ability to effectively use advanced methods and techniques to make decisions in the field of human resource management and to motivate them by asking questions.
- PEU\_U02 Has the ability to identify, interpret and evaluate the behavior of members of the organization and to select optimally designed coaching sessions.

relating to social competences:

- PEU\_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.
- PEU\_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

#### PROGRAMME CONTENT Number of Seminar hours Semin 1 Introduction to the coaching model. Learning theories. Coaching style of management. Basic characteristics of the contract and coaching session. Practice – microsessions. Feedback/ peer feedback. Semin 2 Preparation for coaching. Stage 1: Identifying the needs and goals of coaching. 6 Stage 2: Agreeing on specific development needs. Step 3: Develop a detailed coaching plan. Practice - microsessions. Feedback/ peer feedback. Stage 4: Completing the task or activity. Step 5: Performance review and planning 6 for better performance. Stage 6: Ending the coaching. Practice – microsessions. Feedback/ peer feedback. Third party initiated coaching. Skills (analytical and soft). Case studies. Practice Semin 4 microsessions. Feedback/ peer feedback. Semin 5 Practice – final summary of previously recorded microsessions. Feedback/ peer 6 feedback. Total hours 30

# TEACHING TOOLS USED

- N1. camera
- N2. mini lectures
- N3. case studies
- N4. coaching microsessions

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F	Learning outcomes code	Way of evaluating learning outcomes achievement
– forming		
during		
semester), P –		
concluding (at		
semester end)		
F1	PEU_U01	Participation in microsessions conducted during each
	PEU_U02	class and peer feedback
	PEU_K01	oluss und pool roodouck
	PEU_K02	
P	PEU_W01	participation in the final recorded coaching
	PEU_W02	microsession, participation in the evaluation of other
	PEU_U01	interosession, participation in the evaluation of other

PEU_U02 PEU_K01	participants' microsessions (peer feedback)
PEU_K01 PEU_K02	

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Thorpe, S., Clifford, J., The Coaching Handbook: An Action Kit for Trainers and Managers, Kogan Page, 2003.
- [2] van Oosten, E., Smith M., Boyatzis, R.E., Helping People Change: Coaching with Compassion for Lifelong Learning and Growth, Harvard Business Press, 2019.
- [3] Walsh Phillips, K., Asaad, D. et al, Behind the Scenes: Secrets from the Top Coaches, Experts, and Consultants, Year of the Book Press, 2019.
- [4] Eckstrom, B., The Coaching Effect: What Great Leaders Do to Increase Sales, Enhance Performance, and Sustain Growth, Greenleaf Book Group Press, 2019.

# SECONDARY LITERATURE:

- [1] Dixon, B., Start with Your People: The Daily Decision that Changes Everything, Zondervan, 2019
- [2] Kaye, B., Winkle Giulioni, J., Help Them Grow or Watch Them Go: Career Conversations Organizations Need and Employees Want, Berrett-Koehler Publishers, 2019.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Brdulak, anna.brdulak@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish Komunikacja w mediach społecznościowych

Name of subject in English: Communication in social media

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8030S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of social sciences

### SUBJECT OBJECTIVES

- C1 Knowledge and awareness about the use of social media communication
- C2 Capability to build a strong professional, personal, and social network
- C3 Capability to understand, evaluate and influence social media communication of other

### SUBJECT EDUCATIONAL EFFECTS

Relating to skill:

PEU\_U01: Can choose, adapt, justify and apply appropriate norms and standards (legal, professional, moral and ethical) in social media, for personal, professional and social communications.

PEU\_U02: Has the ability to formulate, justify, select, and verify social media communication policies in accordance with the established priorities, in the context of internal and external conditions.

PEU\_U03: Has the skills to understands simple spoken and read texts, can establish social contacts, expresses coherently on a known topic, can create basic social media content, and can identify, interpret, evaluate and influence the behavior of members of the organization, especially in context of communication through social network.

# Relating to social competences:

- PEU\_K01: Is able to cooperate and communicate in a group, and demonstrates readiness to independently organize and manage the work of teams.
- PEU\_K02: Shows courage and patience in communicating and defending own views, and is also prepared to persuade and negotiate for the sake of achieving common goals, on social media and other platforms.
- PEU\_K03: Is prepared to behave in a professional and ethical manner; sees and formulates ethical dilemmas related to his own and someone else's work; looks for appropriate solutions and the possibility of correcting irregularities in their attitudes and behavior in the workplace.

	PROGRAMME CONTENT	
	FROGRAMME CONTENT	
	Seminar	No. Of hours
Sem 1	Introduction to communication in Social Media, a personal, professional and social perspective	2
Sem 2	vSmart – Virtual Social Media Personality – group discussion	2
Sem 3	Creating, implementing and analyzing personal communication and influence	2
Sem 4	Creating, implementing and analyzing professional communication and influence	2
Sem 5	Creating, implementing and analyzing social communication and influence	2
Sem 6	Organizational social media communication policy: an HR perspective – group discussion	2
Sem 7	Intra-networks: social networks within the organization – group discussion	2
Sem 8	Organizational interaction with society and employer branding – group discussion	2
Sem 9	Case studies in social media communication	2
Sem 10		2
Sem 11		2
Sem 12	Student team presentations on various cases of social media communication in	2
Sem 13	HR and proposal of solutions	2
Sem 14		2
Sem 15		2
	Total hours	30

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes code	Way of evaluating
during semester), P –		learning outcomes
		achievement

concluding (at semester end)		
F1	PEU_U01, PEU_U03, PEU_K01, PEU_K02	Group work during the semester
F2	PEU_U02, PEU_U03, PEU_K01, PEU_K03	Team presentation
F3	PEU_U01, PEU_U03, PEU_K02, PEU_K03	Individual course journal

P = F1 \* 30% + F2 \* 30% + F3 \* 40%

To pass the course student requires at least 50% in each F1, F2 and F3 respectively (3.5 from 55%, 4.0 from 65%, 4.5 from 75%, 5.0 from 85%, 5.5 from 95%)

### PRIMARY AND SECONDARY LITERATURE

# TEACHING TOOLS USED

- N1. Documentation and debriefing
- N2. Multimedia presentation by students
- N3. Collaboration and group discussion
- N4. Team work on Microsoft Teams or similar teamwork software/web-platform

# PRIMARY LITERATURE:

- [1] Dulworth, M. and Dulworth, M. The connect effect: Building strong personal, professional, and virtual networks. Berrett-Koehler Publishers. 2008
- [2] Lipschultz, J.H., 2017. Social media communication: Concepts, practices, data, law and ethics. Taylor & Francis.

## SECONDARY LITERATURE:

- [1] Salpeter, M., Social networking for career success. New York, NY: Learning Express. 2013
- [2] Qualman, E., Socialnomics: How social media transforms the way we live and do business. John Wiley & Sons. 2012
- [3] Evans, D., Social media marketing: the next generation of business engagement. John Wiley & Sons. 2010
- [4] Madia, S.A., 2011. Best practices for using social media as a recruitment strategy. Strategic HR Review.
- [5] Bizzi, L., 2020. Should HR managers allow employees to use social media at work? Behavioral and motivational outcomes of employee blogging. The International Journal of Human Resource Management, 31(10), pp.1285-1312.
- [6] Doherty, R., 2010. Getting social with recruitment. Strategic HR review.
- [7] Wollan, R., Smith, N. and Zhou, C., The social media management handbook: Everything you need to know to get social media working in your business. John Wiley & Sons. 2011

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Yash Chawla, yash.chawla@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Wynagradzanie i premiowanie Name of subject in English: Compensation and rewarding

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8018P

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				30	
Number of hours of total student workload (CNPS)				75	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				3	
including number of ECTS points for practical classes (P)	)			3	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	l			2,1	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge concerning compensation and rewarding.

### SUBJECT OBJECTIVES

C1 Students are able to create various compensation systems, choose the best one for given organization and reshape it based on the needs of the organization.

C2 Students are able to choose appropriate rewarding system and reshape it based on the needs of the organization.

# SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU W01 Student knows various compensation systems.

PEU\_W02 Student knows various rewarding systems.

PEU\_W03 Student knows the assumptions of pay rise design.

relating to skills:

PEU\_U01 Student is able to design compensation systems in a strategic context of an organization.

PEU\_U02 Student is able to design rewarding systems.

PEU\_U03 Student is able to design pay rise system.

PEU\_U04 Student is able to take into account strategic context and assumptions of various management methods during compensation, rewarding and pay rise design.

relating to social competences:

PEU\_K01 Student is able to properly work in a team.

PEU\_K02 Student is able to analyze complex issues and predict results of introduced changes.

PEU K03 Student is able to solve problems.

	PROGRAMME CONTENT	
	Project	Number of hours
Proj 1	Organizational classes. Teams organization.	2
Proj 2	Selection of the organization and presentation of its basic characteristics in the context of compensation and rewarding needs.	2
Proj 3	Analysis of existing job positions and their relations and job evaluation.	2
Proj 4	Job positions overview – presentation.	2
Proj 5	Initial proposition of the compensation strategy.	2
Proj 6	Compensation design – initial proposition of the compensation system.	2
Proj 7	Compensation design – compensation system presentation.	2
Proj 8	Initial proposition of goals and assumptions for rewarding strategies.	2
Proj 9	Rewarding design – initial proposition of two different rewarding systems.	2
Proj 10	Rewarding design – presentation of critical comparison of proposed systems.	2
Proj 11	Pay rise design – indication of applicable the pay rise system.	2
Proj 12	Pay rise design – presentation of applicable variants of pay rise systems.	2
Proj 13- 15	Final report presentations.	6
	Total hours	30
	TEACHING TOOLS USED	
	altimedia presentations.	

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning outcomes	Way of evaluating learning outcomes achievement				
during semester), P –	code					
concluding (at semester						
end)						
F1	PEU_W01-W03	Presentations during the semester.				
P1	PEU_U01-U04	Final report.				
F2	PEU_K01-K03	Teamwork during the semester.				
		Presentation during the semester.				
P=P1 + (F1+F2)/2						
PRIMARY AND SECONDARY LITERATURE						

# PRIMARY LITERATURE:

- [1] Armstrong, M., & BARON, A. (1995). The job evaluation. London: IPD.
- [2] BERGER, L. A., & BERGGER, D. R. (2020). The compensation handbook. A state-of-the-art guide to compensation strategy and design. McGraw Hill.
- [3] Heneman, R. L. (Ed.). (2002). Strategic Reward Management: Design, Implementations, and Evaluation. IAP.

# SECONDARY LITERATURE:

[1] Lawler III, E. E. (2000). Rewarding excellence: Pay strategies for the new economy. Jossey-Bass.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marta Nowakowska marta.nowakowska@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Zarządzanie kompetencjami Name of subject in English: Competences management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8009P

Group of courses NO\*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				30	
Number of hours of total student workload (CNPS)				90	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				3	
including number of ECTS points for practical classes (P)	)			3	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	l			2,1	

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. basic knowledge in the field of human resource management

#### SUBJECT OBJECTIVES

- C1 Developing the ability to select appropriate methods in order to create a competency model for a selected organization
- C2. Developing the ability to identify and define the competence profile in the organization
- C3. Developing the ability to identify and define competencies for a given position
- C4 Developing the ability to create competence profiles
- C5 Developing the ability to design and use professional competency management tools in human resource management

### SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU\_W01 Knows the principles and methods of creating competency profiles

PEU\_W02 Has knowledge of tools for measuring competences relevant for a given position

PEU\_W03 Knows what is management by competences in particular areas of human resource management: selection, development, evaluation and remuneration of employees

# Relating to skills:

- PEU\_U01 Is able to create a competency model for a selected organization
- PEU\_U02 Is able to design a competency profile along with the levels of fulfillment of competencies for a given position
- PEU\_U03 Is able to design tools for competency assessment
- PEU\_U04 Is able to apply the competency approach in the selection, evaluation, development and remuneration of employees
- PEU\_U05 Can select sources of information and use techniques for obtaining them (interview, questionnaire, documentation) can integrate the obtained information, interpret it, as well as draw conclusions and formulate and justify opinions in the area of competency management.

# Relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization and participate in planning and implementation.
- PEU\_K02 Is able to cooperate and work in groups in the organization. Can properly set priorities in own work and in cooperation with others.
- PEU\_K03 Is aware of the responsibility for own work and readiness to submit to the priorities set by others and be responsible for the tasks performed independently or in a team

	PROGRAMME CONTENT				
	Project				
Proj 1	Presentation of the purpose of the classes and assessment criteria. Explanation of the project topic, a detailed explanation of how the project is to be implemented. Establishment of project teams.	2			
Proj 2	Overview of the method of carrying out tasks in the project work.  Discussion of the structure of the written report.	2			
Proj3-4	Working in project teams 1 - designing a competency model for a selected organization Consulting, assessing the advancement of students' work.	4			
Proj5	Presentation of project teams no. 1 - competency model for a selected organization	2			
Proj6-8	Working in project teams 2 - creating job profiles along with the levels of fulfillment of competences for selected positions in the organization. Consulting, assessing the advancement of students' work	6			
Proj9	Presentation of project teams no. 2 - competency profiles for selected positions in the organization	2			
Proj10- 12	Working in project teams. 3 - designing the application of the competency approach and creating tools to assess competencies for a selected area of human resource management Consulting, assessing the advancement of students' work	6			
Proj13- 14	Presentation of project teams no. 3 - applying the competency approach in a selected area of human resource management	4			
Proj15	Summary of classes. Discussion of conclusions from the evaluation of written reports	22			
	Total hours	30			

# TEACHING TOOLS USED

- N1. Consultations
- N2. Student presentation using media for multimedia presentations
- N3. Problem discussion
- N4. Case study
- N5. Written report
- N6. Field research in a selected organization
- N7. Self-study using the e-learning platform

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation	Learning	Way of evaluating learning outcomes achievement
(F –	outcomes code	, <u>, , , , , , , , , , , , , , , , , , </u>
forming		
during		
semester), P		
concluding		
(at semester		
end)		
F1	PEU_W01-3	Team work, activity during classes
	PEU_U01-5	
	PEU_K02	
	PEU_K03	
F2	PEU_U01	Assessment of the substantive content and presentation of the developed competency model for the selected organization
F3	PEU_W01 PEU_U02	Assessment of the substantive content and presentation of the developed competency profiles for selected job positions
	PEU_W02-3 PEU_U03 PEU_U04 PEU_U05	Assessment of the substantive content of the project of applying the competency approach in the selected area of human resource management and its presentation
F3	PEU_W02-3 PEU_U04 PEU_U05 PEU_K01	Project of applying the competency approach in the selected area of human resource management in the form of a written report
P = F1 + F2 +	+ F3 + F4 + F5	
The student	must obtain min	n. 60% of grades in each form of evaluation

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] David D. Duboise, William J. Rothwell, Deborah Jo King Stern, Linda K. Kemp: Competency-Based Human Resource Management, Davies-Black Publishing, 2004
- [2] Copies of scientific articles about HRM for lectures (available on e-learning platform)

# SECONDARY LITERATURE:

- [1] Mahesh Kuruba: Role Competency Matrix A Step-By-Step Guide to an Objective Competency Management System, Springer, 2019.
- [2] Ganesh Shermon: Competency Based HRM A Strategic Resource for Competency Mapping, Assessment and Development Centres, McGraw-Hill, 2004.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Kamila Ludwikowska, kamila.ludwikowska@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Współczesne zarządzanie Name of subject in English: Contemporary management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8002

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				30
Number of hours of total student workload (CNPS)	60				90
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	2				3
including number of ECTS points for practical classes (P)	0				3
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_, .				2,1

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### SUBJECT OBJECTIVES

To ensure knowledge about:

- C1. the context of contemporary business and dynamics of organizational environment,
- C2. the idea of business model generation,
- C3. problems and principles of strategic choices,
- C4. the performance measurement,
- C5. designing of business processes,
- C6. managing the organizational change,
- C7. management concepts.

To ensure skills to:

C8. choose, justify and apply the management methods and techniques when complex management and substantive issues in the organization are identified, analyzed and solved.

### SUBJECT EDUCATIONAL EFFECTS

### relating to knowledge:

- PEU\_W01 Student explains and illustrates the impact of global environment on organizational competitiveness
- PEU\_W02 Student has an expanded knowledge about management methods and concepts.
- PEU\_W03 Student identifies the stages of stabilization and the development of the organization.
- PEU\_W04 Student recognises the complexity of substantive and managerial problems in the organization. Interprets the interdependencies that go beyond separated functions, processes and organization.
- PEU\_W05 Student has knowledge of leadership and decision making in the strategic area and the implementation of organizational changes.
- PEU\_W06 Student has extended knowledge of entrepreneurship developing the innovative business models.

# relating to skills:

- PEU\_U01 Student analyses the causes and dynamics of events and phenomena in the organization as a whole, in the context of their internal and external conditions. Identifies, analyses and evaluates complex management and substantive problems in the organization.
- PEU\_U02 Student has the ability to formulate solutions to complex management and substantive problems in the organization. Justifies, selects and verifies solutions in accordance with the established priorities, in the context of internal and external conditions.
- PEU\_U03 Student has the ability to design complex changes in the organization.

### relating to social competences:

- PEU\_K01 Student is prepared to behave professionally and ethically; recognizes and formulates ethical dilemmas related to his own and others' work; searches for proper solutions and opportunities to correct irregularities in his attitudes and behaviours at work.
- PEU\_K02 Student shows readiness to identify, critically analyse and resolve problems arising at the workplace. Able to anticipate the effects of made decisions.
- PEU\_K03 Student shows readiness to unassisted to conduct flexible searches and use critical selection of methods and tools in solving problems arising at the workplace.
- PEU\_K04 Student is 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.
- PEU\_K05 Presents courage in conveying and defending their views. Prepared to persuade and negotiate in order to achieve common goals.

#### PROGRAMME CONTENT Number of Lecture hours Lec 1 Setting the Stage - challenges of contemporary management Archetypes of business models Lec 2 2 Lec 3 Corporate strategy - Business strategy 2 2 Key performance indicators and key results indicators Lec 4 Lec 5 Organizational design – business processes 2 Organizational change 2 Lec 6 Interorganizational collaboration Lec 7 2 Lec 8 Final assessment 1 15 Total hours Number of Seminar hours

Semin 1	Introduction	2
Semin 2	Scenario planning	2
Semin 3-4	Business model development workshop	4
Semin 5	Corporate level strategy – development in the core case study	
Semin 6	Business level strategy – development beyond the core case study	
Semin 7	Business process design – process identification	2
Semin 8	Business process design – process mapping	2
Semin 9	Developing key performance indicators	2
Semin 10	Change management – organizational development	2
Semin 11	Shaping of organizational culture	2
Semin 12	Management concepts cooperation oriented: virtual and network organization	2
Semin 13	Management concepts knowledge-oriented: learning organization and knowledge management	2
Semin 14- 15	Managing differently: management innovations case studies	4
	Total hours	30

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Case studies
- N3. Workshops
- N4. Students' presentations
- N5. Discussion of selected issues
- N6. Self-study: final assessment preparation

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01-W06	involvement during lecture
F2	PEU_W01-W06	written assessment
F3	PEU_U01-U03, PEU_K01- K04	presentation
	PEU_U02-U03, PEU_K01- K04	workshop participation
	PEU_U02-U03, PEU_K01- K04	case studies solving
P1 - 0.4*F1 + 0.6*F2		

P1 = 0.4\*F1 + 0.6\*F2

P2 = 0.3\*F3 + 0.3\*F4 + 0.4\*F5

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Dumas M., La Rosa M., Mendling J., Reijers H., Fundamentals of Business Process Management, Springer 2018.
- [2] Osterwalder A., Pigneur Y., Business Model Generation: A Handbook for Visionaries, Game Changers,

- and Challengers, Wiley, 2010.
- [3] Parmenter D., Key Performance Indicators: Developing, Implementing, and Using Winning KPIs, Wiley 2019.
- [4] Wilkinson A., Armstrong S.J., Lounsbury M., Oxford Handbook of Management, Oxford University Press, 2018.
- [5] Zook C., Allen J., Profit from the Core: A Return to Growth in Turbulent Times, Harvard Business Press 2010.

# SECONDARY LITERATURE:

- [1] Hatch M. J., Cunliffe A. L., Organization Theory (3rd edit), 2013.
- [2] McKee A., Management: A Focus on Leaders, 2nd Edition, 2014.
- [3] Hamel G., What matters now. How to win in a world of relentless change, ferocious competition, and unstoppable innovation, Jossey-Bass, 2012.
- [4] https://www.omg.org/spec/BPMN/

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr Jolanta Maj jolanta.maj@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Spoleczna odpowiedzialność biznesu Name of subject in English: Corporate social responsibility

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8035

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical classes (P)	0				1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	٥,,,				0,7

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

# SUBJECT OBJECTIVES

- C1. To deliver the basic conceptual foundations of corporate social responsibility
- C2. To explore main issues and challenges typically encountered by the company in managing social responsibilities in relations with different stakeholders.
- C3. To encourage making thoughtful judgments when faced with social responsibilities in business practice.

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 - has a basic knowledge about corporate social responsibility agenda and perspectives

PEU\_W02 - has a basic knowledge about managing corporate social responsibility

PEU\_W03 – understands main issues and challenges typically encountered by the company in managing social responsibilities in relations with different stakeholder groups

### relating to skills:

PEU\_U01 – identifies, analyzes and evaluates application of CSR in relations with different stakeholder groups

PEU\_U02 – identifies and analyzes main issues and challenges typically encountered by the company in CSR management

relating to social competences:

PEU\_K01 – is prepared to behave in a professional and ethical manner, to recognize and formulate the ethical dilemmas associated with his/her own and others' work; to seek appropriate solutions and opportunities to correct deficiencies in their attitudes and behaviors in the workplace

Lecture			
Lec 1	Corporate Social Responsibility agenda	2	
Lec 2	Perspectives on CSR. The business case for CSR	2	
Lec 3	Actors and drivers of CSR	2	
Lec 4	Managing CSR: Corporate Governance and CSR	2	
Lec 5	Managing CSR: Developing CSR strategy	2	
Lec 6	Managing CSR: CSR reporting and auditing CSR	2	
Lec 7	Managing CSR: Responsibility in supply chain. Partnerships and self-Regulation	2	
Lec 8	Final assessment	1	
	Total hours	15	
	Seminar	Number of hours	
		nours	
Semin 1	Organizational meeting	1	
	Organizational meeting Applying CSR in the marketplace		
Semin 2		1	
Semin 2 Semin 3	Applying CSR in the marketplace	1 2	
Semin 2 Semin 3 Semin 4	Applying CSR in the marketplace Applying CSR in the workplace	1 2 2	
Semin 2 Semin 3 Semin 4 Semin 5	Applying CSR in the marketplace Applying CSR in the workplace Applying CSR in the community	1 2 2 2	
Semin 2 Semin 3 Semin 4 Semin 5 Semin 6	Applying CSR in the marketplace Applying CSR in the workplace Applying CSR in the community Applying CSR and the ecological environment	1 2 2 2 2 2	
Semin 2 Semin 3 Semin 4 Semin 5 Semin 6 Semin 7	Applying CSR in the marketplace Applying CSR in the workplace Applying CSR in the community Applying CSR and the ecological environment Developing CSR strategy – case study	1 2 2 2 2 2 2	

# TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
- N2. Case studies
- N3. Students' presentations
- N4. Discussion of selected issues

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01-W03, PEU_K01	students' involvement during lecture
F2	PEU_W01-W03	written assessment
F3	PEU_U01-U02, PEU_K01	students' presentation
F4	PEU_U01-U02, PEU_K01	students' involvement during case study solving

P1 = 0.1\*F1 + 0.9\*F2P2 = 0.7\*F3 + 0.3\*F4

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Crane, A., McWilliams, A., Matten, D., Moon, J., & Siegel, D. S. (Eds.), The Oxford handbook of corporate social responsibility, Oxford Handbooks, 2008.
- [2] Blowfield M., Murray A., Corporate social responsibility, OXFORD University Press, 2019.

## SECONDARY LITERATURE:

- [1] Crane, A., Matten, D., & Spence, L. (Eds.), Corporate social responsibility: Readings and cases in a global context, Routledge, 2019.
- [2] Chrysides G.D., Kaler J.H.: Essentials of business ethics, McGrawhill, 1996.
- [3] Crane A., Matten D., Glozer, S., & Spence, Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization, Oxford University Press, 2019.
- [4] Ferrell O. C., Business ethics: ethical decision making and cases, Houghton Mifflin Co., New York 2005.
- [5] Gini A. [ed.], Case studies in business ethics, Pearson Pretice Hall, Upper Saddle River 2005.
- [6] Giacalone R.A., Jurkiewicz C.L., Dunn C. [ed.], Positive psychology in business ethics and corporate responsibility, Information Age Pub., Greenwich 2005.
- [7] Murphy P.E., Laczniak G.R., Marketing ethics: cases and readings, Pearson Prentice Hall, Upper Saddle River 2006.
- [8] Sternberg E.: Just Business, Oxford University Press, New York 2002.
- [9] Journals like "Journal of Business Ethics".

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Sałamacha anna.salamacha@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Twórcza praca grupowa Name of subject in English: Creavtive group work Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8003S

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P	)				2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU	r				1,4

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

## **SUBJECT OBJECTIVES**

- C1. Students know the methods and tools supporting the creativity of individual and group activities.
- C2. Students are able to independently prepare activities supporting creativity thinking and activities in a group and organization (creativity training).

#### SUBJECT EDUCATIONAL EFFECTS

Relating to skills:

PEU U01

Can select, justify and apply methods and techniques of creative solving of complex management problems in the organization. Can make a critical assessment of the usefulness of methods and techniques for creative problem solving.

PEU U02

Can read and understand a simple text in a foreign language and write a simple note of the tasks performed in the foreign language.

PEU U03

Has an extended ability to organize and manage their own creative work and the creative work

of others, as well as to creatively analyze emerging management problems together with formulating variants of their solution.

Relating to social competences:

PEU\_K01

Able to cooperate and work in group and team forms of work organization (assuming different roles in them). Demonstrates readiness to independently organize and manage the work of creative teams.

PEU\_K02

Ready to search, select and create tools to increase the level of creativity in the team and organization.

PEU K03

Prepared to behave in a professional and ethical manner; perceives and formulates ethical dilemmas related to their own and someone else's creative work.

	PROGRAMME CONTENT				
	Seminar				
Sem 1	Introduction	2			
Sem 2-3	Techniques for recognizing problems	4			
Sem 4-5	Techniques for identifying problems	4			
Sem 6-9	Individual processes for generating creative alternatives	8			
Sem 10- 14	Group processes for generating creative alternatives	10			
Sem 15	Summary of seminars. Final assessment.	2			
	Total hours	30			

# **TEACHING TOOLS USED**

- N1. Discussion
- N2. Individual work (literature overview)
- N3. Multimedia techniques (presentation prepared by students)
- N4. Group work

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming during semester), P – concluding (at	Learning outcomes code	Way of evaluating learning outcomes achievement
semester end)		
F1	PEU_U01	Students' presentations
	PEU_U02	
	PEU_K01	
	PEU_K03	
F2	PEU_U01	Students' activity during seminars
	PEU_U02	
	PEU_U03	
	PEU_K01	
	PEU_K02	
	PEU_K03	
P=0,7*F1+0,3*F2		

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Higgins J.M., (2006), 101 Creative Problem Solving Techniques: The Handbook of New Ideas for Business, New Management Pub Co.
- [2] Proctor T., (2010), Creative Problem Solving for Managers, Routledge.
- [3] Greene N., (2017), Stop Guessing: The 9 Behaviors of Great Problem Solvers, Berrett Koehler.
- [4] Kallet M., (2014), Think Smarter: Critical Thinking to Improve Problem-Solving and Decision-Making Skills, Wiley.

# SECONDARY LITERATURE:

- [1] Shalley C.R, Hitt M.A, Zhou J., (2015), The Oxford Handbook of Creativity, Innovation, and Entrepreneurship, Oxford University Press.
- [2] Orloff M., (2006), Inventive Thinking through TRIZ A Practical Guide, Springer.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Rafał Miśko, rafal.misko@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Rozwijanie kompetencji kulturowych Name of subject in English: Developing cultural competences

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8032S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					75
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					3
including number of ECTS points for practical classes (P)					3
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					2,1

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

basic knowledge of social sciences

#### SUBJECT OBJECTIVES

- C1 To acquaint students with concepts and tools relating to apply and communicate understanding of the importance of diversity and difference experiences in practice.
- C2 To acquaint students with concepts and tools relating to apply awareness to identify and manage the influence of biases and values in working with diverse clients and employees.
- C3 To acquaint students with concepts and tools relating to principles of cultural humility and identify skills and practices to advance cultural humility in work with diverse clients and employees.

# SUBJECT EDUCATIONAL EFFECTS

In the field of knowledge:

PEU\_W01 has systematic knowledge of culture management

PEU\_W02 has systematic knowledge of different type of cultures

In the field of skills:

PEU\_U01 is able to recognize and use cultural strategies

PEU\_U02 is able to skillfully use the techniques of cultural strategic thinking

PEU\_U03 is able to manage culture inside the company

In the field of social competences:

PEU\_K01 is aware of the importance of self-assessment

PEU\_K02 demonstrates readiness to communicate and negotiate with different nations

# PROGRAMME CONTENT

	Seminar	Number of hours
Semin 1	Introduction: what is cultural competence and why is important?	2
Semin 2	Cultural characterstic	2
Semin 3	Dimension of cultures	2
Semin 4	What cultural competence model is needed?	2
Semin 5	How globalization and immigration are changing the world?	2
Semin 6	Developing the foundation cultural competencies	2
Semin 7	Culture management	2
Semin 8	Type of organizational culture	2
Semin 9	Communicating with culturally diverse employees	2
Semin 10	Effective leadership in cultural diversity	2
Semin 11	Cultural strategies and cultural strategic thinking	2
Semin 12	Cross cultural competence	2
Semin 13	Cultural competency for executive, managers and employees	2
Semin 14	Building a culturally competent organization	2
Semin 15	Discusion	2
	Total hours	30

# TEACHING TOOLS USED

- N1. multimedia techniques (presentation)
- N2. discussion
- N3. own work (literature studies, essays)
- N4. group work
- N5. case studies

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01,PEU_W02, PEU_W03	Measurement of activity through attendance
F2	PEU_W01,PEU_W02, PEU_U02, PEU_U03, PEU_K02	Presentation preparation measurement
F3	PEU_W01,PEU_W02, PEU_U02, PEU_U03, PEU_K02	Measurement of preparations for the panel discussion
F4	PEU_U01, PEU_U02, PEU_K01	Measurement of the value of own studies
P P= 0.25F1+0.25F2	+0.25F3 +0.25F4	

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Espiridion Borrego ,III Johnson, Richard Greggory 2011): Cultural Competencef or Public Managers, Managing Diversity in Today's World
- [2] Milek Hogan (2017): The Four Skills of Cultural Diversity Competence

# SECONDARY LITERATURE:

- [1] Oluremi B. Ayoko, Charmine E.J. Härtel (2006): Cultural diversity and leadership: A conceptual model of leader intervention in conflict events in culturally heterogeneous workgroups, Cross Cultural Management: An International Journal
- [2] Miranda, A. H. (2002). Best Practices in Increasing Cross-Cultural Competence. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology IV (p. 353–362). National Association of School Psychologists.
  [3] D.D. Warrick (2017): What leaders need to know about organizational culture, Business Horizons, Volume 60, Issue 3, pp.365-404

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Yasmin Ziaeian, yasmin.ziaeian@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Rozwój potencjału osobistego Name of subject in English: Development of personal potential

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8031S

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	•				1,4

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES basic knowledge of social sciences

#### **SUBJECT OBJECTIVES**

- C1 To acquaint students with concepts and tools relating to the ability to assess and plan personal professional development.
- C2 To acquaint students with concepts and tools relating to the planning the resources required for personal professional development
- C3 To acquaint students with concepts and tools relating to implement, evaluate and support the personal development plan

# SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU\_U01 is able to choose, adapt, justify and apply appropriate concepts and tools necessary for planning and developing personal potential

PEU\_U02 is able to formulate a strategy of planning the resources required for personal professional development

relating to social competences:

PEU\_K01 is aware of the need for an independent, critical assessment of the scope and level of their knowledge and professional skills.

PEU\_K02 is prepared to independently search for areas of knowledge, competences and skills to complete.

PEU\_K03 is prepared to behave in a professional manner, sees and formulates ethical dilemmas related to his/her own work and personal development; looks for appropriate solutions and the possibility of correcting irregularities in his/her attitudes and behavior. PEU\_K04 is prepared to take responsibility for the tasks entrusted to his/her within the framework of designated organizational roles and to be responsible for his/her own preparation for work, decisions made and actions taken, and their effects.

PROGRAMME CONTENT					
	Seminar				
Semin 1	Introduction - the concept and meaning of development of personal potential	2			
Semin 2-3	Identification and importance of continual self-development in achieving personal and organisational objectives	4			
Semin 4-5	Assessment of skills and competencies against defined role requirements, personal and organisational objectives	4			
Semin 6-7	Assessment of competency gap in relation to development of personal potential	4			
Semin 8-10	Identification development opportunities to meet current and future defined needs (in relation to the development Kolb cycle, personal learning style ect.)	6			
Semin 11-13	Preparation personal potential development plan with: key tasks; SMART objectives; performance indicators; milestones, review dates, required resources.	6			
Semin 14-15	Discussion on the processes required to implement the personal development plan and on the evaluation the impact of development of personal potential plan on the achievement of personal and organisational objectives.	4			
	Total hours	30			
	TEACHING TOOLS USED				

# N1. multimedia techniques (presentation)

- N2. discussion
- N3. own work (literature studies, essays)
- N4. group work
- N5. case studies

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)		Way of evaluating learning outcomes achievement
F1		Measurement of activity through attendance
F2	PEU_U01; PEU_U02; PEU_K01;PEU_K02; PEU_K03; PEU_K04	Presentation preparation measurement
F3		Measurement of preparations for the panel discussion
F4	PEU_U01; PEU_U02; PEU_K01;PEU_K02; PEU_K03; PEU_K04	Measurement of the value of own studies

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Pedler M., Burgoyne J., Boydell T. (2013), *A Manager's Guide to Self-Development*, UK Professional Business Management / Business
- [2] Personality Improvement Institute (2016), How to Develop Your Potential. Book Collection Part 1. An Inspiring Guide: Finding Professional and Personal Fulfillment
- [3] Richards S. (2016), Personal Development Plan

# SECONDARY LITERATURE:

- [1] Buckingham M., (2015), StandOut 2.0: Assess Your Strengths, Find Your Edge, Win at Work, Harvard Business Review Press
- [2] Buckingham M., (2011), Standout: The Groundbreaking New Strengths Assessment from the Leader of the Strengths Revolution, Thomas Nelson Publishers
- [3] Cialdini R. (2008), Influence: Science and Practice, 5th edition, Pearson

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jagoda Mrzygłocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie różnorodnością Name of subject in English: Diversity management Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: optional

Subject code: W08ZZZ-SM8033S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					75
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					3
including number of ECTS points for practical classes (P)					3
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					2,1

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

basic knowledge of social sciences

# **SUBJECT OBJECTIVES**

To ensure knowledge (including application aspects) about:

- C1 individual perspectives of diversity
- C2 Stereotypes and Privileges
- C3 Primary and Secondary Dimensions of Diversity
- C4 Managing Diversity in Terms of the Ethical, Legal, Media and Marketing Issues

#### SUBJECT EDUCATIONAL EFFECTS

relating to skills:

- PEU\_U01 Has the ability to select sources of information and use them to solve problems related to diversity in the organization
- PEU\_U02 Has the ability to identify, analyze and solve problems related to diversity in the organization.
- PEU\_U03 Has the ability to make a critical assessment of the usefulness of methods and techniques
- PEU\_U04 Has the ability to select, adapt, justify and apply appropriate norms and standards

- (legal, professional, moral and ethical) in activities related to diversity in the organization.
- PEU\_U05 Has the ability to formulate solutions to problems related to diversity in the organization. He can justify, select and verify solutions related to diversity in the organization in accordance with the established priorities, in the context of internal and external conditions.

#### relating to social competences:

- PEU\_K01 Is aware of the need for an independent, critical assessment of the scope and level of his knowledge and skills in the field of diversity in the organization. Is prepared to independently search for areas of knowledge to supplement and skills to improve. He can inspire and organize the learning process of other people.
- PEU\_K02 Has the ability to interact and work in group and team forms of work organization (assuming different roles in them). Demonstrates readiness to independently organize and manage the work of teams.
- PEU\_K03 Demonstrates readiness to identify, critically analyze and resolve problems related to diversity in the organization. He can predict the effects of decisions made.
- PEU\_K04 Is prepared to initiate changes related to diversity in the organization and participate in their planning and implementation, as well as to anticipate the multidirectional effects of the introduced changes.
- PEU\_K05 Has the ability to make decisions regarding the diversity of the organization PEU\_K06 Has the ability to identify, interpret and evaluate the behavior of the members of the organization regarding the diversity in the organization

	PROGRAMME CONTENT Seminar	Number of hours
Se1	Introduction to diversity management	2
Se2	Understanding individual perspectives of diversity	2
Se3	Increasing Multicultural Understanding: cultural classifications	2
Se4	Increasing Multicultural Understanding: Uncovering Stereotypes	2
Se5	Increasing Multicultural Understanding: Uncovering Privileges	2
Se6	Understanding the Primary Dimensions of Diversity such as Race & Ethnicity	2
Se7	Understanding The Primary Dimensions of Diversity such as Age, Gender	2
Se8	Understanding The Primary Dimensions of Diversity such as Physical and Mental Challenges	2
Se9	Understanding The Secondary Dimensions of Diversity such as Social Class, Religion	2
Se10	Understanding The Secondary Dimensions of Diversity such as Language & Communication	2
Se11	Understanding The Secondary Dimensions of Diversity such as Appearance/Weight and Military Service	2
Se12	Understanding Intercultural Communications in Today's Global Environment	2
Se13	Managing Diversity in Terms of the Ethical, Legal, Media and Marketing Issues	2
Se14	Managing Organizational Change and Diversity: Current Issues	2

Se15 Good Practices for Understanding and Managing Diversity		2		
	Total hours			
	TEACHING TOOLS USED			
N1. Pr	resentations prepared by students			
N2. Q	uestions to students during seminar			
N4. D	iscussion of selected issues			
N6. Se	elf-study: seminar preparation			

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning outcomes	Way of evaluating learning outcomes achievement
forming during	code	
semester), P –		
concluding (at semester		
end)		
F1	PEU_U01	Assessment of student presentations (during the
	PEU_U02	seminar)
	PEU_U03	
	PEU_U04	
	PEU_U05	
	PEU_K01	
	PEU_K02	
	PEU_K03	
	PEU_K04	
	PEU_K05	
	PEU_K06	
F2	PEU_U01	Assessment of student involvement (during the
	PEU_U02	seminar)
	PEU_U03	, in the second of the second
	PEU_U04	
	PEU_U05	
	PEU_K01	
	PEU_K02	
	PEU_K03	
	PEU_K04	
	PEU_K05	
	PEU_K06	
P Final mark consists of F	_	1

#### P Final mark consists of F1(60%) and F2 (40%)

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Harvey, C. P., & Allard, M. (2015). *Understanding and managing diversity: Readings, cases, and exercises*. Pearson.
- [2] Plummer, D. L. (2003). *Handbook of diversity management: Beyond awareness to competency based learning*. University Press of America.

# SECONDARY LITERATURE:

- [1] Diversity in a Box. In The Inclusion Breakthrough. BerrettKoehler Publishers, San Francisco, CA. The Inclusion Paradox -1 st and second edition Tapia, A. T. (2009). The Inclusion Paradox, 1st ed. Hewitt Associates, Lincolnshire, IL. Tapia, A. T. (2013).
- [2] Diversity in the Workforce: Current Issues and Emerging Trends Byrd, M. Y., Scott, C. L. (2014). Diversity in the Workforce: Current issues and emerging trends. New York, NY. Routledge.
- [3] Diversity Resistance in Organizations (2008) Thomas, K. T. (2008). Diversity Resistance in Organizations, Taylor & Francis, New York, NY. Making Diversity Work (2008) Thiederman, S. (2008).
- [4] Kandola, B. (2009). The Value of Difference: Eliminating Bias in Organizations, Pearn Kandola Publishing, Oxford, Great Britain. Understanding and Managing Diversity, 4th Edition (2009) Harvey, C. P, Allard, J. M. (2009).
  - [5] Kirton, G & Greene, A (2010), The dynamics of managing diversity: a critical approach. 3 edition. Oxfod: Else vier Butterworth-Heinemann Remark: Tillgänglig för kursstudener gratis genom ebook central på HKR-biblioteket.
  - [6] Klarsfeld, A (2010), International handbook on diversity management at work: country perspectives and equal treatment. Cheltenham: Edward Elgar (346 p). Remark: Tillgänglig för kursstudenter gratis genom ebook central på HKR-biblioteket.
  - [7] Konrad, A M & Prasad, P & Pringle, Judith K (2009), Handbook of workplace diversity. Sage Publications, London Remark: Tillgänglig för kursstudenter gratis genom ebook central på HKR-biblioteket
- [8] Making Diversity Work, Kaplan Publishing, New York, NY. Managing Diversity: People Skills for a Multicultural Workplace (2009) Carr- Ruffino, N. (2012).
- [9] Managing Diversity: People Skills for a Multicultural Workplace, 9 th Edition. Pearson Custom Publishing. The Inclusion Breakthrough (2002) Miller, F. A., Katz, J. H. (2002).
- [10] Mattiske, C. (2012). Understanding and Managing Diversity,
- [11] Moss, G (2011), Lessons on profiting from diversity. Basingstoke: Palgrave Macmillan Basingstoke (296 p). Remark: Tillgänglig för kursstudenter gratis genom ebook central på HKR-biblioteket.
- [12] Orlando C. R, 2017, Racial Diversity, Business Strategy, and Firm Performance: A Resource-Based View, Academy of Management Journal Vol. 43, No. 2
- [13] Schwabenland, C (2012), Metaphor and Dialectic in Managing Diversity. Palgrave Macmillan, Basingstoke Remark: Tillgänglig för kursstudenter gratis genom ebook central på HKR-biblioteket.
- [14] The Inclusion Paradox, 2nd ed. Tapia, The Psychology and Management of Workplace Diversity (2004) Stockdale, M. S., Crosby, F. J. (2004).
- [15] The Psychology and Management of Workplace Diversity, Blackwell Publishing, Malden, MA. The Value of Difference: Eliminating Bias in Organizations (2009)
- [16] Thomas D. A., Diversity as Strategy, Harvard Business Review, September 2004
- [17] Understanding and Managing Diversity: Readings, Cases, and Exercises, 4th ed. Prentice Hall, Upper Saddle River, NJ.
- [18] Wright P., S. P. Ferris, J. S. Hiller, M. Kroll, 2017, Competitiveness through Management of Diversity: Effects on Stock Price Valuation, Academy of Management JournalVol. 38, No. 1

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jolanta Maj jolanta.maj@pwr.edu.pl

# SUBJECT CARD

Name of subject in Polish: Motywacja i zaangażowanie pracowników Name of subject in English: Employee motivation and engagement

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8004

Group of courses NO

oroup or courses rec					
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15				15
Number of hours of total student workload (CNPS)	30				30
Form of crediting	crediting with grade				crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	1				1
including number of ECTS points for practical classes (P)					1
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,				0,7

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### SUBJECT OBJECTIVES

- C1. Understanding the theoretical approach to the issues of motivating employees to work in the field of psychology and management sciences.
- C2. Acquiring the ability to develop organizational system of work motivation
- C3. Gaining knowledge about the psychological mechanisms of motivation in management.
- C4. Acquiring the ability to select effective methods of employees motivation to apply in the organization.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Has extended knowledge of the methods and techniques of work motivation used in management.

relating to skills:

PEU\_U1: Knows how to select, justify and apply methods and techniques to identify, analyze and solve complex motivational problems in the organization. Is competent in making a critical assessment of the

usefulness of methods and techniques

PEU\_HRM\_U02 Has the ability to identify, interpret and evaluate the behavior of members of the organization and use current methods and techniques to work motivation.

relating to social competences:

PEU\_K01 Is able to work in organized groups and teams (assuming motivational and leading roles). Demonstrates readiness to independently organize a motivational system for different employees groups.

PEU\_K02 Demonstrates readiness to identify, critically analyze and resolve motivational problems arising in the workplace. Is able to predict the consequences of these problems.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec 1	Theories of motivation in the field of management - psychological perspective	1
Lec 2	The main foundations of classic and current concepts of motivation to work	2
Lec 3	Motivating process from the perspective of reinforcement system. Theory of behavior modification.	2
Lec 4	Subjective determinants of work motivation. Internal motivation factors - implications for the organization	2
Lec 5	Work engagement and organizational commitment as determinants of work motivation	2
Lec 6	Financial motivation. Principles of effective remuneration of employees.	2
Lec 7	Non-financial motivation of employees. Material and non-material motivators to work.	2
Lec 8	Obstacles and problems in effective motivation process. Final test.	2
	Total hours	15
	Seminar	Number of hours
Semin 1	Principles of employee's motivation. Criteria for assessing organizational systems of work motivation	1
	Developing an organizational system of work motivation - general assumptions	2
Semin 3	Reinforcements at work. Selection of rewards and penalties to in accordance with the work type.	2
	Selection of work motivators and diversification of motivation rules	2
Semin 5	Developing an organizational system of work motivation. Selection and differentiating of work motivators.	2
Semin 6	Selection and differentiation of financial motivators in the organizational system of work motivation	2
Semin 7	Selection and differentiation of non-financial motivators in the organizational system of work motivation	2
Semin 8	Analysis and evaluation of the selection and differentiation of work motivators in terms of effectiveness. Final evaluation.	2
	Total hours	15

# TEACHING TOOLS USED

- N1. Lecture
- N2. Discussions
- N3. Multimedia presentations
- N4. Moderated discussion
- N5. Training and simulation exercises

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

<b>Evaluation</b> (F – forming	Learning	Way of evaluating educational effects outcomes
(during semester), P –	outcomes code	achievement
concluding (at semester en		
P1 (lecture)	PEU_W01	Test
	PEU_W02	
	PEU_K01	
	PEU_K02	
F1 (student's project)	PEU_U01	Written report.
	PEU_U02	•
	PEU_K01	
	PEU_K02	
F2 Test or case study	PEU_U01	Test
	PEU_U02	
	PEU_K01	
	PEU_K02	

#### P2 (seminar) = F1+F2

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Armstrong, M. (2007). *A Handbook of Employee Reward Management and Practice*. London and Philadelphia: Kogan Page.
- 2. Furnham, A, MacRae, I. (2017). *Motivation and Performance: A Guide to Motivating a Diverse Workforce*. London: Kogan Page.
- 3. Kanfer, R., Chen, G., Pritchard, R.D. (2008). *Work Motivation: Past, Present and Future*. New York: Routledge Taylor & Francis Group.
- 4. Gagné, M. (2014). *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory*. New York: Oxford University Press.
- 5. Jex, S.M., Britt, T.W. (2014). *Organizational Psychology: A Scientist-Practitioner Approach*. New Jersey: Wiley and sons. Part 9, 10.

#### SECONDARY LITERATURE:

- 1. Nohria, Groysberg, Lee (2008). *Employee Motivation: A Powerful New Model*. Harvard Business Review, July, 2008.
- 2. HBR Guide to Motivating People. Harvard Business Review book. https://store.hbr.org/product/hbr-guide-to-motivating-people/10233

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jolanta Babiak jolanta.babiak@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Ocena wydajności pracowników Name of subject in English: Employee performance appraisal

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8010C

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)		30			
Number of hours of total student workload (CNPS)		60			
Form of crediting		crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points		2			
including number of ECTS points for practical classes (P)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,	1,4			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

basic knowledge in the field of human resource management

# **SUBJECT OBJECTIVES**

C1 To acquaint students with concepts and tools relating to the ability to effective performance appraisals that help motivate employees to achieve higher productivity and performance.

# SUBJECT EDUCATIONAL EFFECTS

in the field of knowledge:

PEU\_W01 has in-depth, systematized knowledge of key concepts and the latest concepts in the field employee performance appraisal

PEU\_W02 has a systematized, in-depth knowledge about the benefits and challenges of using various methods of employee performance appraisal

relating to skills:

PEU\_U01 is able to choose, adapt, justify and apply appropriate concepts and tools necessary for the Performance Appraisal and Potential appraisal.

PEU\_U02 is able to choose, adapt, justify and apply appropriate concepts and tools necessary for to having a meaningful discussion of performance, initiating continuous coaching, avoiding common mistakes made by managers and encourage employees to prepare for a performance discussion.

relating to social competences:

PEU\_K01 is prepared to demonstrate the basic concepts, of Performance Appraisal and Potential appraisal.

PEU\_K02 is prepared to use various objective, scope, function and techniques of Performance appraisal and potential appraisal.

PEU\_K03 is prepared to applicant of Performance Appraisal and potential appraisal in the organisation.

PEU\_K04 is prepared to evaluate the current issues and trends of appraisal.

#### PROGRAMME CONTENT Number of Classes hours C11-2 Introduction to performance appraisal: the past and the future, human resource development 4 and performance appraisal, planning performance and role clarity, accountability and effectiveness C13-5 Process of performance appraisal measuring performance – objectives and indicators, 6 methods of appraisal - contemporary and modern methods, performance feedback and counseling, setting performance criteria, principles of setting performance criteria, objectives and characteristics of performance criteria, methodologies of performance planning, performance management system- issues and dilemmas, concept and method of creating and developing key result areas 360 degree feedback - definition, methodology, advantages/disadvantages of feedback, C16-8 6 RSDQ Model and criteria for success, experiences in 360 appraisals, potential appraisalconcept, difference between performance appraisal and potential appraisal, stock taking performance and stock taking potential competency mapping and potential appraisal – case studies C19-11 Performance management application and development, organizational culture and 4 performance management appraisal system design C112-13 Building and leading high performing team performance management, creating high 4 performance organization performance management system Cl14-15 Emerging concerns and performance management appraisal for future – going beyond 6 tangible performance, hr scorecard, factors that led to thinking about scorecard approach eperformance management system, ethics in performance management. Total hours 30

#### TEACHING TOOLS USED

- N1. multimedia techniques (presentation)
- N2. discussion
- N3. own work (literature studies, essays)
- N4. group work
- N5. case studies

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_U01; PEU_U02; PEU_K01;PEU_K02; PEU_K03; PEU_K04	Way of evaluating learning outcomes achievement
F2	PEU_U01; PEU_U02; PEU_K01;PEU_K02; PEU_K03; PEU_K04	Measurement of activity through attendance
F3	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03; PEU_K04	Presentation preparation measurement
F4	PEU_U01; PEU_U02; PEU_K01; PEU_K02;	Measurement of preparations for the

PEU_K0	3; PEU_K04	panel di	iscussion
P = 0.25E1 + 0.25E2 + 0.25E3 +	0.25F4		

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] DeSimone R. L., Werner J.M; (2021), Human Resource Development 6th Edition,
- [2] Srivastava D.K.(2005), Strategies For Performance Management, New Delhi
- [3] Sandler C., Keefe J. (2003), Performance Appraisals Phrase Book: The Best Words, Phrases, and Techniques for Performace Reviews, Simon and Schuster

# SECONDARY LITERATURE:

- [1] Kirkpatrick D.L. (2006), Improving Employee Performance Through Appraisal and Coaching, Amacom
- [2] Grote G. (2011), How to Be Good at Performance Appraisals: Simple, Effective, Done Right Hardcover, Harvard Business Review Press
- [3] Deblieux M.: Performance Appraisal Source Book: A Collection of Practical Samples, Society For Human Resource Management, 2003

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marta Nowakowska <u>marta.nowakowska@pwr.edu.pl</u>

#### **SUBJECT CARD**

Name of subject in Polish: Ocena potencjału pracownika Name of subject in English: Employee potential assessment

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8011C

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)		30			
Number of hours of total student workload (CNPS)		60			
Form of crediting		crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points		2			
including number of ECTS points for practical classes (P)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		1,4			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- basic knowledge in the field of human resource management

#### SUBJECT OBJECTIVES

- C1 Acquiring knowledge of tools for assessing employee potential
- C2 Acquiring of knowledge in the field of designing a Development Center as a comprehensive method of assessing employee potential
- C3. Developing the ability to create tools to assess the employee's potential
- C4. Developing the ability to design exercises and tasks for the Development Center
- C5 Developing the ability to conduct and evaluate Development Center session
- C6 Developing the skills to prepare a Development Center report

#### SUBJECT EDUCATIONAL EFFECTS

# Relating to knowledge:

PEU\_W01 Has knowledge of tools for assessing employee potential

PEU\_W02 Has knowledge of the stages of designing Development Center sessions

# Relating to skills:

Cl 15

Total hours

PEU U01 Is able to create tools to assess the employee's potential

PEU\_U02 Is able to design individual and group tasks, case studies and simulations to assess the employee's potential

PEU\_U03 Is able to carry out tasks as part of the Development Center and to evaluate the performance of these tasks

PEU\_U04 Is able to prepare a Development Center report

# Relating to social competences:

PEU\_K01 Is prepared to initiate changes in the organization and participate in planning and implementation.

PEU\_K02 Is able to cooperate and work in team in the organization. Can properly set priorities in own work and in cooperation with others.

PEU\_K03 Is aware of the responsibility for own work and readiness to submit to the priorities set by others and be responsible for the tasks performed independently or in a team.

PROGRAMME CONTENT

#### Classes Number of hours Cl 1 Presentation of the purpose of the classes and assessment criteria. Establishment of project teams. Detailed explanation of the ways of carrying out tasks in teams. 2 Selection of tasks to be carried out in teams from the scope indicated by the teacher. Cl 2 Discussion of the application and specificity of the Development Center as a 2 method of assessing the employee's potential. Cl 3-4 Group work 1 in teams 1 - students develop a selected scope of material in the field of Development Center based on the recommended literature and 4 conduct a discussion in the group Cl 5-7 Group work 2 in teams 1 - students develop tasks for the Development Center session for a specific job and competency profile, along with 6 instructions for tasks and indicators for evaluating individual tasks Cl 8-Group work 3 in teams 1 - exercise teams carry out developed Development 11 Center tasks among the group members. Teacher and students assessment 8 according to the developed criteria. Cl 12-Group work 4 in teams 2 - teams prepare the analysis of the results from 13 exercises / tasks. Rotation between members of teams. 4 The newly created teams prepare a comprehensive report on the conducted Development Center session. Cl 14 Presentation of reports by exercise teams no.2. Summary of classes. 2

2

30

Discussion of conclusions from the evaluation of written reports.

#### TEACHING TOOLS USED

- N1. Team development of assigned tasks and exercises
- N2. Self-study using the e-learning platform
- N3. Presentation of final reports by groups
- N4. Task simulations

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

`	Learning outcomes code	Way of evaluating learning outcomes achievement
F1		Group work 1 - development of a selected scope of material regarding the Development Center method, presentation and discussion in a group
	PEU_U01 PEU_U02 PEU_K03	Group work 2 - development of tasks for Development Center sessions (tasks, instructions, indicators)
F3	PEU_U03 PEU_K03	Group work 3 - carrying out the developed tasks
F4	PEU_U03	Group work 4 - preparation of the results of the tasks carried out
F5	PEU_U04 PEU_K01	Report (written report, presentation)

P = (F1+F2+F3+F4+F5)/5

The student must obtain min. 60% of points in each form of evaluation

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Thornton G.C., Rupp D.E.: Assessment Centers in Human Resource Management Strategies for Prediction, Diagnosis, and Development, Lawrence Erlbaum Associates, Inc., 2006.
- [2] Ian Taylor M.B: A Practical Guide to Assessment Centres and Selection Methods Measuring Competency for Recruitment and Development, Kogan Page, 2007.

# SECONDARY LITERATURE:

- [1] Robert Edenborough: Assessment Methods in Recruitment, Selection Performance A Managers Guide to Psychometric Testing, Interviews and Assessment Centres, Kogan Page, 2005.
- 2] Copies of scientific articles about HRM for lectures (available on e-learning platform)

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marta Nowakowska marta.nowakowska@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Zarządzanie marką pracodawcy

Name of subject in English: Employer branding Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8026C

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)		30			
Number of hours of total student workload (CNPS)		60			
Form of crediting		crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points		2			
including number of ECTS points for practical classes (P)	)	2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	l	1,4			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### **SUBJECT OBJECTIVES**

- C1 To familiarize students with the problems of building an entrepreneur's brand.
- C2. To familiarize students with the problems of diagnosing the state of the entrepreneur's brand.
- C3. To familiarize students with the problems of using tools and methods to create an entrepreneur's
- C4. To familiarize students with the problems of evaluating implemented solutions in the field of creating an entrepreneur's brand.

#### SUBJECT EDUCATIONAL EFFECTS

relating to skills:

- PEU\_U01 The student is able to analyze the current situation of the employer's brand.
- PEU\_U02 The student is able to design and implement activities related to the creation of internal employer branding.
- PEU\_U03 The student is able to design and implement activities related to the creation of external employer branding.
- PEU\_U02 The student is able to evaluate and improve the designed activities concerning the employer's brand management. relating to skills:

relating to social competences:

PEU\_K01 The student is ready to lead and work in a team

PEU\_K02 The student presents initiative, creativity, specificity and model approach in formulating, transferring and defending own solutions and views

PEU\_K03 The student is prepared to take responsibility in the field of enterprise management, not only in terms of essential issues but also ethics

#### PROGRAMME CONTENT

	Classes	Number of hours
Cl 1	Introduction to the subject of the course, explanation of the rules of passing.	2
C1 2	Employer brand management in the context of marketing management	2
C1 3	Diagnosis and analysis of the current employer's brand situation	4
Cl 4	Internal employer branding	6
Cl 5	External employer branding	6
Cl 6	Building employer branding strategy	4
Cl 7	Employer branding methods and tools	4
Cl 8	Final test	2
	Total hours	30

# TEACHING TOOLS USED

- N1. Multimedia presentation
- N2. Case studies
- N3. Discussion on selected problems
- N4. Questions and tasks asked to students during exercises
- N5. Independent or team analysis and evaluation of given aspects
- N6. Own or team work: preparation for exercises
- N7. Presentation prepared by students

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_U02 PEU_U03 PEU_U04	Tasks carried out during the semester
F2	PEU_U01 PEU_U02 PEU_U03 PEU_U04	Presentations given during the semester
F3	PEU_K01 PEU_K02 PEU_K03	Observation of activity during classes
F4	PEU_U01 PEU_U02 PEU_U03 PEU_U04	Final test

P = F1 + F2 + F3 + F4

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Rana, G., Agarwal, S., & Sharma, R. (Eds.). (2021). Employer Branding for Competitive Advantage: Models and Implementation Strategies. CRC Press.
- [2] GehrelsEmployer S., (2019). Branding for the Hospitality and Tourism Industry: Finding and Keeping Talent. Emerald Publishing.

# SECONDARY LITERATURE:

- [1] Kotler Ph., Keller K.L.(2012). Marketing Management., Rebis, Poznań.
- [2] Theurer, C.P., Tumasjan, A., Welpe, I.M. and Lievens, F. (2018), Employer Branding: A Brand Equity-based Literature Review and Research Agenda. International Journal of Management Reviews, 20: 155-179.
- [3 Arasanmi, C.N. and Krishna, A. (2019), "Employer branding: perceived organisational support and employee retention the
- mediating role of organisational commitment", Industrial and Commercial Training, Vol. 51 No. 3, pp. 174-183.
  [4] Brusch, I., Brusch, M. and Kozlowski, T. (2018), "Factors influencing employer branding: Investigations of student perceptions outside metropolitan regions", International Journal of Quality and Service Sciences, Vol. 10 No. 2, pp. 149-162

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Sałamacha, anna.salamacha@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Analityka zasobów ludzkich Name of subject in English: Human resource analytics

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory Subject code: W08ZZZ-SM8005

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		30		
Number of hours of total student workload (CNPS)	60		90		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		3		
including number of ECTS points for practical classes (P)	0		3		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,.		2,1		

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

#### **SUBJECT OBJECTIVES**

- C1 Create and visualize key performance indicators
- C2 Model and solve decision problems
- C3 Measure the overall performance of an organization
- C4 Employ machine learning models to make predictions

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Student has knowledge of developing quantitative models and tools to support decision making in the field of human resource management.

PEU\_W02 Student has knowledge of building and using machine learning models to make predictions based on patterns extracted from historical data.

relating to skills:

PEU\_U01 Student can identify and propose models to solve decision problems.

PEU\_U02 Student is able to build useful tools for predictive data analytics.

relating to social competences:

PEU\_K01 Student can enlarge his knowledge and abilities, as well as to work in groups to derive insights from data and to support decisions.

#### PROGRAMME CONTENT Number of Lecture hours Analytics, HR indicators and data visualization 1 Lec 1 Introduction to Linear Programming - The Human Resource Allocation problem 2 Lec 2 2 Linear models and Operations Research methods Lec 3 2 Multiple Criteria Decision Making - Personnel selection Lec 4 Assessing a firm's overall performance – Benchmarking 2 Lec 5 2 **Decision Trees** Lec 6 Clustering algorithms 2 Lec 7 Association rules 2 Lec 8 15 Total hours Number of Laboratory hours Lab 1 Introduction to MATLAB: Numerical computations and data visualization Labs 2-3 Solving the HR Allocation problem - Team work 4 Labs 4-5 Implemention of OR methods - Team work 4 Labs 6-7 Personnel selection under different preference structures - Team work 4 Labs 8-9 Performance measurement and target identification - Team work 4 Lab 10 Classification and regression analysis with decision trees - Team work Labs 11-12 Implementation of clustering algorithms - Team work 4 Labs 13-14 Discovering rules in big datasets - Team work 4 Lab 15 Computer test 2 Total hours 30

# TEACHING TOOLS USED

- N1. Slide Presentations
- N2. Step-by-step solutions of examples
- N3. Set of HR problems to be addressed in the laboratory
- N4. Computational software (MATLAB)

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F –	Learning outcomes code	Way of evaluating learning
forming during		outcomes achievement
semester), P –		
concluding (at		
semester end)		

F1		Report of team work results
P	PEU_W01, PEU_W02, PEU_U01, PEU_U02	Computer test

# PRIMARY AND SECONDARY LITERATURE

# **PRIMARY LITERATURE:**

- [1] Greco, S., Figueira, J., & Ehrgott, M. (2016). Multiple criteria decision analysis (Vol. 37). New York: Springer.
- [2] Kelleher, J. D., Mac Namee, B., & D'arcy, A. (2020). Fundamentals of machine learning for predictive data analytics: algorithms, worked examples, and case studies. MIT press.

# **SECONDARY LITERATURE:**

- [1] Hillier, F. S. (2012). Introduction to operations research. Tata McGraw-Hill Education.
- [2] Cooper, W. W., Seiford, L. M., & Zhu, J. (Eds.). (2011). Handbook on data envelopment analysis.
- [3] Nijjer, S., & Raj, S. (2020). Predictive Analytics in Human Resource Management: A Hands-on Approach. Taylor & Francis.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dimitrios Sotiros, dimitrios.sotiros@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Zarządzanie zasobami ludzkimi Name of subject in English: Human resource management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8006W

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30				
Number of hours of total student workload (CNPS)	90				
Form of crediting	examination				
For group of courses mark (X) final course					
Number of ECTS points	3				
including number of ECTS points for practical classes (P)	0				
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	-,-				

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1

# **SUBJECT OBJECTIVES**

- C1 Provide students with knowledge about the essence of the HR function and HR management process and their relations with other elements of the enterprise management system, as well as knowledge in the field of philosophy, HR policy, strategy and human resources planning.
- C2 Provide students with knowledge about the selection of employees (recruitment, selection and introduction to work) and leaving the organization by employees
- C3 Provide students with knowledge about employee evaluation.
- C4 Provide students with knowledge about remuneration of employees.
- C5 Provide students with knowledge in the field of employee development.
- C6. Providing students with knowledge in the field of new trends in human resource management: HR audit and controlling, shaping employee well-being, management of candidate and employee experience, virtualization and computerization of HRM, competence and evidence-based approach C7. Provide students with knowledge in the field of international HRM and expat management
- C8 Providing students with knowledge in the field of legal aspects in human resource management, including modern forms of employment

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01 Has knowledge of the essence of the human resource function and the human resource management process. Understands the relationship of human resources management with other elements of the enterprise management system and the roles of job positions in the areas of human resource management
- PEU\_W02 Understands the essence of philosophy, politics and HR strategy, knows the principles of strategic human resource management
- PEU\_W03 Knows the rules and understands the importance of the competency approach to human resource management
- PEU\_W04 Has knowledge of recruitment, selection and induction processes.
- PEU\_W05 Knows the essence and principles of employee evaluation.
- PEU\_W06 Has knowledge of employee remuneration.
- PEU\_W07 Understands the principles of employee development
- PEU\_W08 Understands the importance and scope of international human resource management and the essence of expatriate management.
- PEU\_W09 Knows the scope of managerial competences in the field of human resource management
- PEU\_W10 Has knowledge and understands the essence of new trends in human resource management, i.e. virtualization of HRM, auditing and controlling of the HR function, shaping the candidate's and employee's experience and employees' well-being, evidence-based approach
- PEU\_W11 Knows the legal aspects of human resource management, including modern forms of employment

	PROGRAMME CONTENT		
	Lecture	Number of hours	
Lec 1	Introduction, discussion of the lecture program.  The concept and essence of the personal function.  The objectives of human resources management, conditions, importance and evolution of the HR function.  HR function and the enterprise management system. Task structure and content of the human resource management process. HRM entities and the division of roles between them.	2	
Lec2	Strategic human resource management Philosophy, policies and HR strategy. HRM strategy and business strategy	2	
Lec3	Competency approach in human resource management.  - Types of competencies, models and competency profiles and their application in human resource management	2	
Lec4	Selection of employees.  - Job analysis and defining job requirements. Sources of employee recruitment and its types. Traditional and modern techniques of selecting employees. Onboarding programs.	2	
Lec5	Development of people in the organization.  - The meaning and forms of professional development. Training cycle in the organization. Analysis of training needs, methods and techniques of employee improvement, active training techniques, conducting training, evaluation of	2	

	training effectiveness. Employee potential assessment and career path planning. Self - management.	
Lec6	Modern employee evaluation systems.  - Objectives and concepts of employee evaluation. Periodic employee evaluation system. Criteria, methods and principles of employee evaluation. Effectiveness of the periodic employee appraisal system.	2
Lec7	Compensation and benefits in the organization.  - The essence and goals of job evaluation. Criteria and methods of job evaluation. Construction of the employee salary package.	2
Lec8	Employees separations - outplacement programs	2
Lec9	New trends in HRM - E-HRM. Digitalization and virtualization of HRM	2
Lec10	New trends in HRM - Audit and HR controlling.	2
Lec11	New trends in HRM - Managing the candidate's and employee's experience. Employee well-being.	2
Lec12	New Trends in HRM - Evidence-Based HRM.	2
Lec13	International HRM - outline and strategies. Expatriate management.	2
Lec14	Legal aspects of human resource management, including modern forms of employment	2
Lec15	Manager's competencies in the field of HRM. Summary of the lecture	2
	Total hours	30
	TEACHING TOOLS USED	-

#### **TEACHING TOOLS USED**

- N1. Guided self-study on e-learning platform supported with written and recorded materials
- N2. Pre and post lecture tasks for students on e-learning platform
- N3. Presentation of knowledge in the form of direct transmission (lecture) audiovisual media.
- N4. Moderated discussion

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation	Learning	Way of evaluating learning outcomes achievement			
(F –	outcomes				
forming	code				
during					
semester), P					
-					
concluding					
(at semester					
end)					
F1	PEU_W01-	Permanent evaluation (self-directed study - participation in and			
	11	contribution to the tutorials and activities with the use of online			
		platform)			
P	PEU_W01-	End-of-term evaluation (exam)			
	11				
The conditio	The condition for taking the exam is receiving a positive grade for F1				
	PRIMARY AND SECONDARY LITERATURE				

# PRIMARY LITERATURE:

- [1] Michael Armstrong: Armstrong's Handbook of Human Resource Management Practice, 13th Edition, Kogan Page, 2014.
- [2] Alex Vanderstraeten: Strategic HRM and Performance. A conceptual framework. London, MacMillanPalgrave, 2019.
- [3] Christopher Brewster, Elizabeth Houldsworth, Paul Sparrow, Guy Vernon: International Human Resource Management., Chartered Institute of Personnel and Development, 2016.
- [1] Landers, R. N: The Cambridge handbook of technology and employee behavior. Cambridge University Press, 2019.

# SECONDARY LITERATURE:

- [1] Copies of scientific articles about HRM for lectures (available on e-learning platform)
- [2] Diane Arthur: Recruiting, Interviewing, Selecting, Orienting New Employees, American Management Association, 2006.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Kamila Ludwikowska, kamila.ludwikowska@pwr.edu.pl

#### SUBJECT CARD

Name of subject in Polish: Systemy informatyczne w zarządzaniu personelem Name of subject in English: Information systems for Human Resource Management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8019

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			30	
Number of hours of total student workload (CNPS)	50			50	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	2			2	
including number of ECTS points for practical classes (P)				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_, .			1,4	

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Essentials of domain management information systems
- 2. Basic knowledge about theory of organization and management, especially human resource management
- 3. Basic knowledge of the principles of designing and selecting information systems
- 4. Ability to define and analyze users' information requirements

#### SUBJECT OBJECTIVES

- C1.To familiarize students with concepts and tools of choosing Human Resource Information system for a given organization
- C2. Acquainting students with exemplary Information systems supporting HR management
- C3 Acquainting students with the functional scope of exemplary IT tools supporting human resources management
- C4 Acquainting students with designing or using existing IT tools, which support the analysis of data used in solving complex problems in human resource management.

#### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 knowledge of HRM systems definition and basic functions

#### relating to skills:

PEU\_U01 has the ability to make a critical analysis in the selection of data and statistical methods for the analysis of measurement indicators used in human resource management.

PEU\_U02 has the ability to analyze and visualize complex data using modern IT tools and is able to draw correct conclusions based on the available data.

PEU\_U03 has the ability to create IT tools supporting the analysis of measurement indicators used in solving complex problems in human resource management.

# relating to social competences:

PEU\_K01 ability to searching for information and analyzing data understand the importance of business requirements in the design and implementation of human resource information systems

PEU\_K02 developing skills of group of people

	PROGRAMME CONTENT	
	Lecture	Number of hours
Lec 1	Introduction. Processes related to personnel management in the organization. Methods and principles of selecting a human resource IT tools as a part of integrated management information systems - business needs analysis. The process of implementing IT tools supporting HR management	2
Lec 2	Defining the organizational structure with the support of integrated management information systems. Creating an employee profile. Personnel records management	2
Lec 3	Employee recruitment with the support of IT tools	2
Lec 4	Managing employee development with the support of IT tools. Staff training.  Assessment of employee efficiency, effectiveness and commitment	2
Lec 5	Group work supportive tools	2
Lec 6	Payroll systems and services	2
Lec 7	Management of the staff benefits system	2
Lec 8	Conclusion. Final test	1
	Total hours	15
	Laboratory	Number of hours
Lab 1	Introduction	2
Lab 2	Processes related to personnel management in the organization	2
Lab 3	Methods and principles of selecting a human resource IT tools as a part of integrated management information systems - business needs analysis	2
Lab 4	The process of implementing IT tools supporting HR management	2
Lab 5	Defining the organizational structure with the support of integrated management information systems	2
Lab 6	Creating an employee profile	2
Lab 7	Employee recruitment with the support of IT tools	2
Lab8	Personnel records management	2

Lab9	Managing employee development with the support of IT tools	2
Lab10	Staff training	
Lab11	Group work supportive tools	2
Lab12	Assessment of employee efficiency, effectiveness and commitment	2
Lab13	Payroll systems and services	2
Lab14	Management of the staff benefits system	2
Lab15	Conclusion	2
	Total hours	30

# TEACHING TOOLS USED

- N1. multimedia techniques (presentation)
- N2. discussion
- N3. own work (literature studies, lecture content)
- N4. group work
- N5. office hours
- N6. essay

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
P1	PEU_W01	test
F1	PEU_U01 PEU_U02 PEU_U03	evaluation of the lab work
F2	PEU_U01 PEU_U02 PEU_U03	essay
F3	PEU_K01 PEU_K02	measurement of students' activity during class

PLEC= P1

PLAB=F1+F2+F3

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Laudon J., Laudon K. *Management Information Systems*, Prentice Hall; 16th edition, 2020
- [2] Johnson R., Carlson K. Kavanagh M., *Human Resource Information Systems*, 5th edition, SAGE Publications, 2020
- [3] Schwartz D., *Decisions support systems*, ML Books International IPS, 2015
- [4] Waters S., Streets V., McFarlane L., Johnson-Murray R., *The Practical Guide to HR Analytics: Using Data to Inform, Transform, and Empower HR Decisions*, Society for Human 2018

# SECONDARY LITERATURE:

[1] Training notes of software producers

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Lamek, anna.lamek@pwr.edu.pl

#### **SUBJECT CARD**

Name of subject in Polish: Gospodarka oparta na wiedzy

Name of subject in English: Knowledge economy Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8012

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	30			
Number of hours of total student workload (CNPS)	90	60			
Form of crediting	examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	3	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points for direct teacher- student contact (BK) classes		1,4			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Essential of Economics
- 2. Essentials of Management
- 3. Basic Knowledge of Law Regulations

#### **SUBJECT OBJECTIVES**

- C1.To acquire the basic knowledge about the conditions, models and concepts of the development of modern organizations in the conditions of the knowledge-based economy.
- C2. To acquire skills of a holistic approach to people and management problems.
- C3.To acquire skills for the effective functioning of a manager and employee in the modern economy and society, in particular the need to develop creative behaviors and independent, creative thinking.

#### SUBJECT EDUCATIONAL EFFECTS

# relating to knowledge:

PEU\_W01 Has extended knowledge of economic sciences and their place in the system of sciences and relations to other social sciences.

PEU\_W02 Knows the premises, types, directions and economic and legal consequences of the evolution of markets, market structures and institutions, as well as economic and integration groups. PEU\_W03 Understands the strategic importance of knowledge management in an organization. Identifies the conditions and tools of knowledge management in the organization.

#### relating to skills:

PEU\_U01 Is able to identify and analyse the potential effects of the introduced national and international economic and legal regulations for individual organizations, markets and integration groups.

PEU\_U02 Is able to select, adapt, justify and apply appropriate norms and standards (legal, professional, moral and ethical) in specific activities in the organization.

# relating to social competences:

PEU\_K01 It is able to interact and work in group and team forms of work organization (assuming different roles in them).

PEU\_K02 It demonstrates readiness to identify, critically analyse and resolve problems arising in the workplace.

PEU\_K03 It can predict the effects of decisions made and is prepared to take responsibility for the tasks entrusted to him within the framework of designated organizational roles.

	PROGRAMME CONTENT	
	Lectures	Number of hours
Lec.1	Introduction to the Knowledge Based Economy (KBE); 4 Basic Pillars of a Knowledge-Based Economy (KBE)	2
Lec 2	KBE as the Challenge of the Present times	2
Lec 3	KBE and the Fourth Industrial Revolution	2
Lec 4	Intellectual property	2
Lec 5	Innovations as a Factor Determining the International Competitiveness of Enterprises.	2
Lec 6	Social Inequalities and Economic Growth	2
Lec7	Aging of societies	2
Lec8	Summary of the lecture	1
	Total hours	15
	Classes	Number of hours
Cl 1	Development of the Knowledge-Based Economy (KBE) in Europe and Poland	2
Cl 2	Globalization of the Economy	2
C1 3	Indicators KBE	2
Cl 4	Assessment of KBE - Indicators	2
Cl 5	On Respect for Knowledge – Industry 4.0	4
Cl 6	Green Management, Sustainable Development	2
Cl 7	KBE and the Labor Market	4

Cl 8	KBE and Society Aging	
Cl 9	Advantages and Threats of KBE	
Cl 10	Oxford debate	6
	Total hours	30

#### TEACHING TOOLS USED

- N1. visual: blackboard, slides, film, drawings, photos, illustrations from magazines, folders, etc.
- N2. visual auditory: multimedia computer programs
- N3. automating: computers

#### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	outcomes code	Way of evaluating educational effect achievement
F1 final Test	PEU W01- W03	Passing the final test for min. 60%.
F2 test	PEU_U01 - U02	Passing a test of exercises.
P test	PEU K01 - K03	Passing a test of exercises.
P=F1+F2+F3		

#### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Ashoka Chandra (Editor), M K Khanijo (Editor) (2009), *Knowledge Economy: The Indian Challenge First Edition*, SAGE Publications Pvt. Ltd; First edition.
- [2] Powell, W. and Snellman, K., 2004. *THE Knowledge Economy*. [online] Scholar.harvard.edu. Available at: <a href="https://scholar.harvard.edu/files/kaisa/files/powell\_snellman.pdf">https://scholar.harvard.edu/files/kaisa/files/powell\_snellman.pdf</a> [Accessed 31 January 2020].
- [3] Unger R. M. (2019), The Knowledge Economy.
- [4] Westeren K. I. (2012), *Foundations of the Knowledge Economy*, Nord-Trøndelag University College, Norway.

# SECONDARY LITERATURE

- [5] McGivney, E. and Winthrop, R., 2016. *Education's Impact on Economic Growth and Productivity*. [online] Brookings.edu. Available at: <a href="https://www.brookings.edu/wp-content/uploads/2017/12/educations-impact-on-productivity.pdf">https://www.brookings.edu/wp-content/uploads/2017/12/educations-impact-on-productivity.pdf</a> [Accessed 31 January 2020].
- [6] May T., Perry B. (2017), Cities and the Knowledge Economy Promise, Politics and Possibilities.
- [7] Ronald L. Jacob (2019), *Work Analysis in the Knowledge Economy*, Springer International Publishing AG.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Małgorzata Rutkowska, malgorzata.rutkowska@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Przywództwo w organizacji Name of subject in English: Leadership in organizations

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8020

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30	30			
Number of hours of total student workload (CNPS)	90	50			
Form of crediting	examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	3	2			
including number of ECTS points for practical classes (P)	0	2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	,	1,4			

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

basic knowledge of social sciences

### **SUBJECT OBJECTIVES**

- C1 Acquaint students with the psychological foundations of organizational dynamics from the leadership perspective
- C2 Bringing about leadership processes that move employees to take actions "beyond expectations"
- C3 Making students aware of the psychological processes related to the use of power and its consequences
- C4. Developing skills associated with coming to leadership role and leadership position

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Has in-depth knowledge of leadership, motivation as well as mechanisms related to group and social influence in the organization. Indicates the principles to counteract the negative individual and social actions in the organization.

PEU\_W02 Is aware of the need for an independent, critical assessment of the scope and level of his knowledge and professional skills in the field of leadership. Is prepared to independently search for areas of knowledge to supplement and skills to improve.

# relating to skills:

- PEU\_U01 Identifies factors contributing to the effectiveness of organizational and team leadership and is able to use them to use power and authority effectively and design effective teams
- PEU\_U02 Is able to use psychological knowledge in leading and managing people in the organization and in project tasks as well as assuming the role of a leader.

# relating to social competences:

- PEU\_K01 Can convey his own views and stand up for them. Is prepared to persuade and negotiate for the sake of achieving common goals.
- PEU\_K02 Communicates effectively and empathetically with others, while respecting different perspectives and worldviews

PROGRAMME CONTENT			
	Lecture	Number of hours	
Lec 1	Leadership and management in organizations: dynamics and processes	2	
Lec 2	Individual factors in leadership: mental abilities and personality	2	
Lec 3	Individual factors in leadership: need for power, personal values, and ethics	2	
Lec 4	Cultural factors in leadership: dynamics and influences	2	
Lec 5	Leadership and impact of social perception	2	
Lec 6	Leader-member exchanges. Stress of social interactions	2	
Lec 7	Leadership styles: Full Range Leadership and Instrumental Leadership	2	
Lec 8	Value-based leadership styles: authentic, ethical, and servant	2	
Lec 9	Leadership, management, authority, and substitutes for leadership	2	
Lec 10	Communication and organizational reputation	2	
Lec 11	Dysfunctional leadership: personal perspective (narcissism, Machiavellianism, psychopathy)	2	
Lec 12	Dysfunctional leadership: organizational perspective	2	
Lec 13	Leading diversity in organizations	2	
Lec 14	Becoming a better leader: self-management and behavior modification strategies	2	
Lec 15	Virtual organizations. Virtual groups. Virtual leadership. Test of knowledge	2	
	Total hours	.30	
	Classes	Number of hours	
Cl 1, 2, 3	Overview of <i>personal leadership development plan</i> assignment. Outline of what leadership means to a student personally. Identification of passion, interests, intentions and legacy an individual student would like to leave in the workplace. Formulation of a project that would help the student to achieve the goals of her leadership vision: ends with a personal leadership paper 4-5 pages long, double-spaced.	6	
Cl 4,5,6	Presentation of project papers, Q&A sessions, discussions, students' critical appraisals and defense.	6	
Cl 7, 8,	Leadership in practice: group task activity. Outcomes: Analysis of group processes in the team. Evaluation of team performance. Listing suggestions for actions to improve team performance. Evaluating the dynamics of the leadership processes and suggesting ways to improve leader-member exchanges.	6	
Cl 10,11,12	Leadership in practice: group task activity. Outcomes: Analysis of group processes in the team. Evaluation of team performance. Listing suggestions for actions to improve team performance. Evaluating the dynamics of the leadership processes and suggesting ways to improve leader-member exchanges.	6	

Cl 13,14,15	Presentation of project papers, Q&A sessions, discussions, students' critical appraisals and defense.	6
	Total hours	30

### TEACHING TOOLS USED

- N1. Lectures
- N2. In-class reading
- N3. Case studies
- N4. Moderated group discussion and assessment
- N5. In-class video material/discussion
- N6. Multimedia presentation

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
P1 (lecture)	PEU_W01 PEU_W02	Test
F1 (written assignment)	PEU_U01 PEU_U02	Assessment of the formal value and practical implication of the written assignment.
F2 (in-class activity)	PEU_K01 PEU_K02	Appraisal of in-class activity and group work
P2 (seminar) F1 + F2		

# PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Organizational Behavior: openstax.org/details/books/organizational-behavior
- [2] Whetten D.A., Cameron, K.S. (2016; 9<sup>th</sup> ed.) *Developing Management Skills*. Pearson
- [3] Yukl, G. (2019, 9th global ed.) *Leadership in Organizations*. Pearson prentice Hall

# SECONDARY LITERATURE:

- [1] Current issues of Leadership Quarterly; articles selected by the instructor
- [2] Current issues of Academy of Management Review; articles selected by the instructor

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jolanta Babiak, jolanta.babiak@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Rachunkowość zarządcza Name of subject in English: Managerial accounting Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8021

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15	15		
Number of hours of total student workload (CNPS)	60	60	60		
Form of crediting	examination	crediting with grade	crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2	2	2		
including number of ECTS points for practical classes (P)	-	2	2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	ĺ	1,4	1,4		

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The student should have basic knowledge in management

### **SUBJECT OBJECTIVES**

- C1 Acquiring knowledge about the essence of management accounting and cost accounting models, their genesis as well as classification and specificity
- C2 Acquiring the ability to analyse the costs of their planning, forecasting and optimization as well as calculations
- C3 Acquiring knowledge about preparing the budget and financial statements

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Demonstrate ordered knowledge of the nature of management accounting and cost accounting as well as their genesis and development stages in Poland and in the world.

PEU\_W02 Characterize and know the methods and concepts of cost accounting and management accounting tools.

PEU\_W03 Knows the ways of constructing a budget and describes the individual documents of financial statements

# relating to skills:

- PEU\_U01 Is able to list, discuss, and indicate the differences between cost accounting models and their impact on the financial result.
- PEU\_U02 Is able to, in practice, perform cost calculations and perform cost analyses, their planning, forecasting and optimization.
- PEU\_U02 Is able to, compile a company budget and show the effect recorded in financial statements

# relating to social competences:

- PEU\_K01 Is aware of the importance of management accounting in business practice, primarily its role in providing the management of the organization with economic information necessary to secure the organization's management processes, including the performance of its basic functions.
- PEU\_K02 Is prepared to collect, process and present financial and non-financial information about the project and the company and its environment, which aims to support managers in making operational and strategic decisions.

	PROGRAMME CONTENT				
	Lecture	Number of hours			
Lec 1	The essence and scope of managerial accounting - its place in the infernal system in management, genesis and evolution	1			
Lec 2	Concept, classification, grouping and cost settlement procedures - rules, stages, directions	2			
Lec 3	Calculation of costs - essence, subject, tasks of calculation (division and additional calculation, detailed calculation methods).	2			
Lec 4	Cost accounting models in management accounting - concepts of cost accounting models and criteria for their classification, cost accounting models and material and time scope, variations of cost accounting, control and decision accounts and types: (variable cost accounting, standard cost accounting, activity cost accounting).	2			
Lec 5	Other cost accounting models: (product life cycle costing, target costing, continuous improvement costing, costing, quality)	2			
Lec 6	Price decisions and short-term decision accounts - price-setting factors, price determination methods, setting boundaries, assortment structure selection and production technology	2			
Lec 7	Budgeting as an enterprise management method - the essence, role and classification of budgets, budgeting methods, structure and stages as well as enterprise budget procedures	2			
Lec 8	Financial statements	2			
	Total hours	15			
	Classes	Number of hours			
Cl 1	Grouping of costs in accounting records	1			
C1 2	Costs accountable	2			
C1 3	Calculation of costs	2			

Cl 4	Classic cost accounts	2
Cl 5	Other cost accounting models	2
Cl 6	Pricing and selection of assortment structure and technology	2
Cl 7	Budgeting, preparation of financial statements and deviation analysis	2
Cl 8	Final test	2
	Total hours	15
	Laboratory	Number of hours
Lab 1	Reporting the transactions of a business- introduction to the laboratory	1
Lab 2	Classification of costs, product costs: materials, labour and overheads	2
Lab 3	Break- even analysis and short –term decision making	2
Lab 4	Standard costs	2
Lab 5	Performance evaluation and feedback reporting	2
Lab 6	Capital investment appraisal	2
Lab 7	Preparing Budget	2
Lab 8	Reporting cash fows- preparing a statement	2
	Total hours	15
	TEACHING TOOLS USED	
N1. In	formative lecture	
	ultimedia presentation	
N3. Pr	ractical exercises	

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at	Learning outcomes code	Way of evaluating learning outcomes achievement
semester end)		
F1	PEU_W01, PEU_W02 PEU_W03 PEU_K01 PEU_K02	Written final test = EXAM
F2	PEU_U01, PEU_U02 PEU_U03 PEU_K01 PEU_K02	Assessment of the degree of commitment to the problems being solved
F3	PEU_U01, PEU_U02 PEU_U03	Assessment of the budget semester task
F4	PEU_U01, PEU_U02 PEU_U03	Final test
C (Lec) =F1		

C (C1) = 0.2\*F2+0.3\*F3+0.5\*F4

C (Lab) = 0.5 F3 + 0.5 F2

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] P. Weetman, Financial and management accounting: an introduction, Harlow: Pearson, 2019
- [2] Joannidès de Lautour, VassiliStrategic Management Accounting, Volume I: Aligning Strategy, Operations and Finance,: Cham: Springer International Publishing AG, 2018
- [3] K. Alex, Cost Accounting, ChennaiIndia Pearson India, 2012
- [4] D. Bhattacharyya, Management Accounting, Pearson India, 2010

# SECONDARY LITERATURE:

- [1] Li, Wing Sun, Strategic Management Accounting: A Practical Guidebook with Case Studies, 2017
- [2] P. Schuster, Transfer Prices and Management Accounting, Springer International Publishing, 2015
- [3] R. W. Scapens, Management Accounting, Macmillan Education UK, 1991

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Parkitna; agnieszka.parkitna@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Nowoczesne trendy w zarządzaniu kapitałem ludzkim Name of subject in English: Modern trends in Human Resource Management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8027S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

• basic knowledge in the field of human resource management

### SUBJECT OBJECTIVES

- C1 The student acquires the ability to search and analyze content in the field of modern methods of human resource management.
- C2. The student acquires the ability to critically evaluate the usefulness of human resource management methods.

### SUBJECT EDUCATIONAL EFFECTS

# relating to knowledge:

PEU\_W01 Student knows objectives and mechanisms of functioning and characteristics of integrated IT management systems dedicated for HRM.

### relating to skills:

- PEU\_U01 Student is able to perform strategic analysis of human resources in the organization and their relation with its environment.
- PEU\_U02 Student is able to formulate alternative strategies for human resource management.
- PEU\_U03 Student is able to effectively use advanced methods and techniques of decision-making in the field of human resource management.
- PEU\_U04 Student is able to analyze, interpret and evaluate trends of modern methods and techniques for human resource management.

# relating to social competences:

- PEU\_K01 Student is able to search for fields of knowledge concerning human resource management and to supplement and skills to improve in an unassisted manner.
- PEU K02 Student is able to inspire and organize the process of learning others.
- PEU\_K03 Student is able to work in a team.

	Seminar	Number of hours
Semin 1	Organizational seminar. Basics of literature data bases search.	2
Semin 2	Principles of critical analysis of scientific papers.	2
Semin 3	Articles selection and discussion	2
Semin 4-6	Presentations of scientific papers on modern trends in human resource management – modern management methods.	6
Semin 7-9	Presentations of scientific papers on modern trends in human resource management – modern IT management systems.	6
Semin 10-14	Presentations of scientific papers on modern trends in human resource management – management in crisis and high dynamics of environment.	10
Semin 15	Conclusions and discussion.	2
	Total hours	30

### TEACHING TOOLS USED

- N1. Multimedia presentation.
- N2. Structured discussion.
- N3. Teamwork.

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1		Teamwork during the semester, partial tasks implementation.
F2		Teamwork during the semester, presentation at the end of the semester.

### P = F1 + F2 / 2

# PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Jesson, J., Matheson, L., & Lacey, F. M. (2011). Doing your literature review: Traditional and systematic techniques. Sage.
- [2] Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management practice. Kogan Page.

# SECONDARY LITERATURE:

[1] Analoui, F. (Ed.). (2017). The changing patterns of human resource management. Routledge.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Katarzyna Tworek, katarzyna.tworek@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie wydajnością w zarządzaniu zasobami ludzkimi Name of subject in English: Performance management in Human Resource Management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Managment

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8029

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	60	30			
Form of crediting	examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	2	1			
including number of ECTS points for practical classes (P)	-	1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_, -	0,7			

<sup>\*</sup>delete as not necessary

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge in the field of Human Resource Management

### **SUBJECT OBJECTIVES**

- C1. Students are able to plan and implement performance management system.
- C2. Student can prepare and calculate KPIs for measuring performance in HRM.

# SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU\_W01

Has an extensive knowledge of modern concepts of human resource management.

PEU\_W02

Understands the interdependencies between the area of human resources and other areas of the organization.

PEU\_W03

Knows advanced methods of measuring and evaluating performance in the recruitment, selection, training and development of employees.

PEU W04

Has extended knowledge of the methods and techniques used in the performance evaluation process.

PEU W05

He has in-depth knowledge in the field of development, evaluation, remuneration and increasing the efficiency of the employee's work, and knows the principles of their effective application.

PEU W06

He has in-depth knowledge of the goals, elements and conditions of the performance evaluation process as well as the correct characterization of their mutual relations, also in the strategic dimension.

Relating to skills:

PEU\_U01

Can select sources of information and use them to build performance evaluation indicators.

PEU\_U02

Can make a critical assessment of the suitability of methods and techniques in building performance evaluation indicators.

PEU U03

Has the ability to formulate solutions to complex problems related to the evaluation of performance.

PEU\_U04

Has the ability to design changes to the performance evaluation system.

PEU U05

Has the ability to effectively use advanced methods and techniques to make decisions in the field of performance evaluation.

PEU\_U06

Has the ability to identify, interpret and evaluate the behavior of members of the organization and to use modern methods and techniques to influence these behaviors.

Relating to social competences:

PEU K01

Is able to cooperate and work in group and team forms of work organization in building a performance evaluation system.

PEU K02

It is ready to identify, critically analyze and resolve problems that arise in the implementation of a performance evaluation system.

PEU\_K03

Demonstrates readiness to independent, flexible search and critical selection of methods and tools when building a performance evaluation system.

PEU K04

Is prepared to initiate changes to the performance evaluation system and participate in their planning and implementation.

	PROGRAMME CONTENT	
	Lecture	Number of hours
Lec 1	Introduction to Performance Management in HRM	1
Lec 2	Performance Management Process	2
Lec 3	Performance Management and Strategic Planning	2
Lec 4	Defining Performance and Choosing a Measurement Approach	2
Lec 5	Measuring Results and Behaviors	2
Lec 6	Gathering Performance Information	2
Lec 7	Implementing a Performance Management System	2
Lec 8	Summary of material	2
	Total hours	15
	Classes	Number of hours
Cl 1	Introduction	1
C1 2	Performance in recruitment	2
C1 3	Performance in selection	2
Cl 4	Performance in training	2
Cl 5	Performance in development	2
Cl 6-7	Performance in assesment	4
Cl 8	Summary and written quiz	2
	Total hours	15
	TEACHING TOOLS USED	
	raditional lecture with multimedia presentations ractical exercises	

- N3. Discussion

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01 PEU_W02 PEU_W03 PEU_W04 PEU_W05 PEU_W06	Exam
F2	PEU_U01 PEU_U02 PEU_U03 PEU_U04	Written quiz

	PEU_U05	
F3	PEU_K01	Discussion
	PEU_K02	
	PEU_K03	
	PEU_K04	
	PEU_U06	

P(lecture)=F1

P(classes)=0.8\*F2+0.2\*F3

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Aguinis, H. (2013). Performance management, 3rd ed., Pearson.
- [2] Houldsworth E., Jirasinghe D. (2006) Managing and Measuring Employee Performance, Kogan Page.
- [3] Ashdown L. (2018). Performance Management A Practical Introduction, CIPD Kogan Page.
- [4] Brulan A. (ed.) (2015). The Human Resources KPI Dictionary: 370+ Key Performance Indicator definitions, CreateSpace Independent Publishing Platform.

# SECONDARY LITERATURE:

- [1] Prem Ch. (2012). Performance Management, Macmillan.
- [2] Hutchinson, S. (2013). Performance management, Chartered Institute of Personnel and Development.
- [3] Parmenter D. (2015). Key Performance Indicators. Developing, Implementing and Using Wining KPIs, Wiley.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Rafał Miśko, rafal.misko@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Zarządzanie marką osobistą

Name of subject in English: Personal branding Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: optional

Subject code: W08ZZZ-SM8036

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)	)				2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

basic knowledge of social sciences

### **SUBJECT OBJECTIVES**

- C1. To acquaint students with concepts and tools relating to apply the concepts of advertising and marketing to personal branding.
- C2.To acquaint students with concepts and tools relating to various strategies related to building, measuring, and managing a personal brand.

### SUBJECT EDUCATIONAL EFFECTS

In the field of knowledge:

PEU\_W01 has systematic knowledge to identify and establish brand positioning and values to build customer based brand equity

In the field of skills:

PEU\_U01 is able to tap into the power of social media to showcase his/her brand PEU\_U02 is able to skillfully use the techniques to build his/her personal brand to authentically stand out from the crowd

PEU\_U03 is able to create a system for on-going personal brand maintenance

In the field of social competences:

PEU\_K01 is aware of the importance of understanding of the mission statement for his/her personal brand

PEU\_K02 demonstrates readiness to build a board of directors for their personal brand

### PROGRAMME CONTENT

	Seminar	Number of hours
Semin 1	Personal Branding: Its essence, goals and classification	2
Semin 2	Personal branding in Social Media	2
Semin 3	Personal branding and the challenges	2
Semin 4	E-branding and traditional branding	2
Semin 5	Personal brand creation on social Media	2
Semin 6	Establish your proffessional purpose	2
Semin 7	Embrace and Expound your experience	2
Semin 8	Make your Personal Brand discoverable	2
Semin 9	Learning Empathy	2
Semin 10	Personal Brand Management	2
Semin 11	Creating your Brand's Maintenance Plan	2
Semin 12	Your Online Identity: How reputation and digital privacy affect your Brand.	2
Semin 13	How to Build a Personal Brand with Content Marketing	2
Semin 14	Personal branding vs business branding	2
Semin 15	Personal branding strategy	2
	Total hours	30

# TEACHING TOOLS USED

- N1. multimedia techniques (presentation)
- N2. discussion
- N3. own work (literature studies, essays)
- N4. group work
- N5. case studies

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01; PEU_U01; PEU_U02; PEU_U03; PEU_K01, PEU_K02	Measurement of activity through attendance
F2	PEU_W01; PEU_U01; PEU_U02; PEU_U03; PEU_K01, PEU_K02	Presentation preparation measurement
F3	PEU_W01; PEU_U01; PEU_U02; PEU_U03; PEU_K01, PEU_K02	Measurement of preparations for the panel discussion
F4	PEU_W01; PEU_U01; PEU_U02; PEU_U03; PEU_K01, PEU_K02	Measurement of the value of own studies

# P P= 0,25F1+0,25F2 +0,25F3 +0,25F4

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Mateusz Grzesiak (2018): Personal Brand Creation in the Digital Age
- [2]Jak Gary (2019): Social Media Marketing 2019 + Personal Branding Strategy Bundle: Build Your Brand Fast, Become an Influencer on Instagram, Youtube, Facebook and Twitter, Advertising and Seo, Start Guide

### SECONDARY LITERATURE:

- [1] I.Labrecquea, Ereni Markosb, George R.Milnec (2011): Online Personal Branding: Processes, Challenges, and Implications, February 2011, Pages 37-50
- [2] Irina PETRUCĂ (2016): PERSONAL BRANDING THROUGH SOCIAL MEDIA, International Journal of Communication Research, pp. 388-392
- [3] Ifan D. H. Shepherd (2010): From Cattle and Coke to Charlie: Meeting the Challenge of Self Marketing and Personal Branding, Journal of Marketing Management, pp. 589-606

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Yasmin Ziaeian, yasmin.ziaeian@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Wystąpienia publiczne Name of subject in English: Public speaking Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8037

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)	)				2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

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### **SUBJECT OBJECTIVES**

- C1 Gaining experience in the preparation and implementation of a speech on their subject.
- C2. Acquiring the ability to convey substantive content in a consistent and attractive way for the audience, and to establish contact with and control the audience.
- C3. Development and consolidation of social competences, including competences to work in a group (playing different roles and adopting different perspectives), effective conversation and argumentation for one's own position.

### SUBJECT EDUCATIONAL EFFECTS

### relating to skills:

PEU\_U01 Has the ability to present content adequately to the needs and priorities of a potential audience

PEU\_U02 He can prepare and make a presentation to both a small group of employees and a large audience at a conference or international event

PEU\_U03 Has the ability to choose the right style of presentation

PEU\_U04 Has the ability to seamlessly integrate slides smoothly into the other aspects of your presentations

PEU\_U05 Has the ability to construct talks that are rational, coherent, easy to understand, and cover all the points you want to hit. Storytelling and humor help, and you must know how to use them.

PEU\_U06 Has the ability to attract the attention of the public with a powerful opening

PEU\_U07 Has the ability to maintain eye contact with the public and provides an energetic, physical presence

PEU\_U08 Has the ability to modulate the vocal tone to emphasize important points and avoid monotonous presentation

PEU\_U09 Has the ability to provide compelling evidence to support themes

PEU\_U10 Has the ability to summarize topics to be discussed at the beginning of a speech to provide context for participants and to tell stories to illustrate points

PEU\_U11 Has the ability to schedule time the speech in advance to make sure it meets the allotted time

PEU\_U12 Has the ability to speak in a crisis situation

### relating to social competences:

PEU\_K01 Has the ability to engage contact with the audience

PEU\_K02 Has the ability to control performance anxiety

PEU\_K03 Has the ability to deal with objections and criticism

PEU\_K04 Presents courage in conveying and defending their views. Prepared to persuade and negotiate in order to achieve common goals.

### PROGRAMME CONTENT

	Seminar	Number of hours
	Public speaking - organizational activities. Elements of a good performance. Myths and truths. Manager - situations in which he does the public speaking	2
Semin 2	My speaker's workshop, the ability to present myself	2
Semin 3	Purpose of the speech - what do I want to achieve,	2
	Who am I talking to - Assessing the needs and priorities of a potential audience, communication effectiveness - building contact	2
Semin 5-6	Who am I talking to - linguistic techniques, choice of words, and the results achieved, the language of benefits	4
	What my body says - the principle of consistency, techniques for dealing with stress and stage fright	2
8-9	Building an effective message - structure of the speech, beginning, building relationships with the audience, selecting evidence, storytelling, short texts, figures in presentations, rhetorical figures, conclusion and ending	4
Semin 10	How to prepare for a speech - tools, presentation of a speech	2
Semin 11	How to integrate your slides smoothly into the other aspects of your presentations- best practices	2
Semin 12-13	Dealing with the audience - contract, question and answer session, feedback, deal with objections and criticism, crisis situations in speech, appearances in crisis situations	4
Semin 14	Working with a camera, media interviews	2

Semin I	Demonstrating practical skills	2
	Total hours	30

### TEACHING TOOLS USED

- N1. Presentation with the use of slides
- N2. Discussion on the issues posed, looking for the best solutions, sharing experiences
- N3. Working in groups and pairs students present their own individual and group solutions to tasks or problems; discussion on the proposed solutions
- N4. Student's own work individual studies, preparation for communication exercises and speeches during classes.
- N5. Student's own work individual studies and preparation for the crediting with grade.

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning outcomes	Way of evaluating learning outcomes achievement
forming during	code	
semester), P –		
concluding (at		
semester end)		
F1	PEU_U01	Test (with descriptions of behavior, action plans)
	PEU _U02	* * * *
	PEU _U03	
	PEU_U04	
	PEU_U05	
	PEU_U06	
	PEU_U07	
	PEU_U08	
	PEU_U09	
	PEU_U10	
	PEU_U11	
	PEU_U12	
F2	PEU_U01	Individual oral answers, class discussions
F3	PEU_U01	Active participation in exercises in subgroups and in
	PEU _U02	individual exercises
	PEU _U03	
	PEU_U04	
	PEU_U05	
	PEU_U06	
	PEU_U07	
	PEU_U08	
	PEU_U09	
	PEU_U10	
	PEU_U11	
	PEU_U12	
	PEU_K01	
	PEU_K02	
	PEU_K03	
	PEU_K04	
F4	PEU_U01	Final public speaking
	PEU _U02	

	•
PEU _U03	
PEU_U04	
PEU_U05	
PEU_U06	
PEU_U07	
PEU_U08	
PEU_U09	
PEU_U10	
PEU_U11	
PEU_U12	
PEU_K01	
PEU_K02	
PEU_K03	
PEU_K04	
D E1 E2*0.2   E2*0.2   E4*0.6	•

P = F1 = F2\*0.2 + F3\*0.2 + F4\*0.6

### PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Michael J. Dowling, Presenting with Style: Advanced Strategies for Superior Presentation
- [2] Duarte Nancy, Slide:ology: The Art and Science of Presentation Design
- [3] J. Kevin Morreale, Sherwyn P.; Spitzberg, Brian H.; Barge, Human Communication: Motivation, Knowledge, Skills
- [4] Patrick King, How to Listen with Intention: The Foundation of True Connection, Communication, and Relationships (How to be More Likable and Charismatic)

# SECONDARY LITERATURE:

- [1] Futrell Charles M. ABC's of Relationship Selling through Service
- [2] Goman C. Kinsey, The Nonverbal Advantage: Secrets and Science of Body Language at Work
- [3] Judith Hall, Ron King, Practical Spelling Skills
- [4] Mark Leary, Self-presentation: Impression Management And Interpersonal Behavior
- [5] Peter F. Anthonissen, Crisis Communication: Practical PR Strategies for Reputation Management & Company Survival

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Marek Sikora, m.sikora@pwr.edu.pl

Kaczmarek Anna anna.kaczmarek@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Metody badawcze w zarządzaniu zasobami ludzkimi Name of subject in English: Research methods in Human Resource Management

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: : 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8013

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15	15		
Number of hours of total student workload (CNPS)	90	60	60		
Form of crediting	Examination	crediting with grade	crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	3	2	2		
including number of ECTS points for practical classes (P)	_	2	2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	_,-	1,4	1,4		

# PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### **SUBJECT OBJECTIVES**

- C1 The student acquires the ability to search and analyze content in the field of modern methods of human resource management.
- C2. The student acquires the ability to critically evaluate the usefulness of human resource management methods.

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU\_W01 Knows advanced methods of measurement and evaluation of achievements of employees.

PEU\_W02 Knows research methods useful for the analysis of human resource management.

relating to skills:

PEU\_U01 Student is able select, justify and follow research methods and techniques to analyze various human resource management aspects in organization.

PEU\_U02 Student is able to design and propose valid advanced methods of measurement of employees' achievements in organization.

PEU\_U03 Student is able to comprehensively assess human resource management practices according to the adopted goals, priorities and given criteria.

PEU\_U04 Student is able to formulates simple hypotheses and research problems and selects adequate research methods, formulate research findings and draws conclusions concerning human resources in organization

PEU\_U05 Student is able to efficiently use software for statistical analysis in order to support the scientific reasoning.

# relating to social competences:

PEU\_K01 Student is able to identify, critically analyze and resolve problems concerning human resource management.

PEU\_K02 Student is able to search, identify and critically analyze research problems in the area of human resource management.

PROGRAMME CONTENT					
	Lecture	Number of hours			
L 1	Human Resource Management as a scientific research subject.	2			
L 2	Job performance as a main measure of employees' effectiveness.	2			
L 3	Job related attitudes as employees' characteristics.	2			
L 4	Scientific reasoning – hypotheses development and measurement methods in Human Resource Management.	2			
L 5	Questionnaire as a basic measurement method in HRM. Methods of sample selection and data gathering.	2			
L 6	Methods for data analysis – statistical analysis of data: scales development and analysis.	2			
L7	Methods for data analysis – statistical analysis of data: correlation, regression.	2			
L 8	Final exam.	2			
	Total hours	30			

	Classes	Number of hours
C 1	Organizational classes. Teams establishment.	2
C 2	Principles of questionnaire development.	2
C 3	Types of questions and scales in questionnaire.	2
C 4	Selection of research sample and ways of data gathering.	2
C 5	Research questionnaire development – scales and questions groups.	2
C 6	Research questionnaire development – questions for each group.	2
C 7	Research questionnaire development – final version and data gathering process analysis.	2
C 8	Conclusions and final results.	1
	Total hours	15
	Laboratory	Number of hours
L1	Organizational laboratory. Team establishment.	2
L2	Basics of SPSS – software for statistical analysis.	2
L3	Variables building.	2
L4	Scales reliability analysis.	2
L5	Basic descriptive statistics.	2
L6	Exploratory and Confirmatory Factor Analysis.	2
L7	Correlation and regression analysis.	2
L8	Final results.	1
	Total hours	15
	TEACHING TOOLS USED	

# N1. Multimedia presentation. N2. Structured discussion. N3. Teamwork.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F –	Learning outcomes code	Way of evaluating learning outcomes achievement				
forming during						
semester), P –						
concluding (at						
semester end)						
F1	PEU_W01-W02	Final exam during Lecture.				
P1	PEU_U01-U05	Teamwork during the semester, tasks implemented				
	PEU_K01-K02	during the semester.				
P2	PEU_U01-U05	Teamwork during the semester, tasks implemented				
	PEU_K01-K02	during the semester.				
F2	PEU_U01-05	Final results obtained during laboratory.				
P (Lecture) = F1; P (Classes) = P1; P (Lab) = (P2 + F2) / 2						
	PRIMARY AND SECONDARY LITERATURE					

# PRIMARY LITERATURE:

- [1] Sweet, S. A., & Grace-Martin, K. (1999). Data analysis with SPSS (Vol. 1). Boston, MA: Allyn & Bacon..
- [2] Sirkin, R. M. (2005). Statistics for the social sciences. Sage Publications..

# SECONDARY LITERATURE:

[1] Babbie, E. R., Halley, F., & Zaino, J. (2007). Adventures in social research: data analysis using SPSS 14.0 and 15.0 for Windows. Pine Forge Press.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, agnieszka.bienkowska@pwr.edu.pl

Anna Koszela; anna.koszela@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Rozwiązywanie konfliktów grupowych

Name of subject in English: Resolving group conflicts Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8014S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark final course with (X)					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

<sup>\*</sup>delete as applicable

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge in social sciences.

# **SUBJECT OBJECTIVES**

- C1. Getting practical knowledge in the area of interpersonal, group and organizational conflicts.
- C2. Familiarizing students with the methods of conflict resolution in groups and organizations.
- C3. Increasing conflict management competences in groups, teams and organizations.

### SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU\_W01 - Has knowledge of the causes, course, dynamics and resolution of group conflicts. relating to skills:

PEU\_U01 - Is able to use knowledge of psychological mechanisms and processes determining the formation and development of conflict.

PEU\_U02 - Is able to independently analyze the conflict situation.

relating to social competences:

PEU\_K01 Is ready to search, select and create tools for solving problems appearing in teams and organizations.

PEU\_K02 Is ready to critically assess and resolve problems arising during professional activity and leadership in conflict management at the workplace, bearing in mind the good of the team, organization and social.

PROGRAM CONTENT Seminar				
Sem 1-2	Conflict - psychological, social and organizational determinants	hours 4		
Sem 3-4	Analysis of conflict areas in contemporary markets and organizations - case studies	4		
Sem 5	Phenomena accompanying conflicts - aggression, prejudices, stereotypes	2		
Sem 6	The course, conflict dynamics, identification of conflict situation features	2		
Sem 7	Ways of conflict resolution - diagnosis of individual styles of conflict resolution	2		
Sem 8	Simulation of a conflict situation - group A	2		
Sem 9	Simulation of a conflict situation – group B	2		
Sem 10	Simulation of a conflict situation – group C	2		
Sem 11	Simulation of a conflict situation – group D	2		
Sem 12	Simulation of a conflict situation – group E	2		
Sem 13	Simulation of a conflict situation – group F	2		
Sem 14- 15	Presentation and analysis of student reports	4		
	Total hours	30		

### TEACHING TOOLS USED

- N1. Group exercises and discussions
- N2. Simulations in small groups
- N3. Discussion of problems and results of works
- N4. Presentation of reports prepared by students

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

	code	Way of evaluating learning outcomes achievement
, ,	PEU_U01-U02 PEU_K01-K02	Activity measurement – oral feedback
groups		Measurement of the presentation and negotiation game (simulations)
C Student analytical report		

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Ramsbotham, Woodhouse, Miall (2016) Contemporary Conflict Resolution. Polity Press
- 2. Liddle (2017) Managing Conflict. Kogan Page
- 3. Levinger (2013) *Conflict Analysis: Understanding Causes, Unlocking Solutions.* United States Institute of Peace

# SECONDARY LITERATURE:

- 1. Duhigg (2017) Smarter Faster Better. Random House Books
- 2. Lenski (2014) The Conflict Pivot. MyriaccordMedia

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska, anna.borkowska@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Analiza ryzyka w projektach realizowanych w organizacji Name of subject in English: Risk analysis in the realization of organizational projects

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8007

Group of courses YES

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		30		
Number of hours of total student workload (CNPS)	90		90		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	3		3		
including number of ECTS points for practical classes (P)	0		3		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	'		2,1		

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### **SUBJECT OBJECTIVES**

- C1 Developing the ability to collect and analyze statistical data in solving problems related to the implementation of projects.
- C2 Providing the necessary knowledge how to deal with statistical programs and data processing.
- C3. Developing the ability to comprehensively look at risk in project implementation.
- C4 Developing the ability to critically evaluate the results of quantitative analyzes.
- C5 Developing the ability to process uncertain information.

### SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU\_W01 Has extended knowledge about selected methods of mathematical statistics.

PEU\_W02 Knows issues related to testing hypotheses in an in-depth way towards applications.

PEU\_W03 Has extended knowledge about selected methods of econometric modeling.

PEU\_W04 Knows the basics of the theory of forecasts and simulations.

PEU\_W05 Recognizes the potential of operations research, econometrics, forecasting and simulation as tools for risk analysis in projects.

### Relating to skills:

PEU\_U01 Is able to carry out basic statistical analyzes with the use of selected IT tools.

PEU\_U02 Is able to plan and carry out the process of acquiring / collecting information on the implementation of projects in the organization for the purposes of risk analysis.

PEU\_U03 Is able to use selected statistical and econometric methods in risk analysis in projects.

PEU\_U04 Is prepared to explore selected methods of operations research as a tool supporting risk analysis.

PEU\_U05 Is able to construct comprehensive risk analysis models regarding project implementation using elements of statistics, econometrics, forecasting and operational research.

# Relating to social competences:

PEU\_K01 Is able to critically assess the usefulness of the results obtained with quantitative methods in the risk analysis of projects.

PEU\_K02 Demonstrates readiness to identify, analyze and solve problems in the field of risk analysis.

PEU\_K03 Recognizes the potential of selected methods of operational research, econometrics, forecasting and simulation as tools for risk analysis in projects.

PEU\_K04 Is aware of the need for continuous improvement of modeling processes.

	PROGRAMME CONTENT					
	Lecture	Number of hours				
Lec 1	Risk management in projects. Quantitative methods in risk analysis.	2				
Lec 2	Statistical tests. Examples of use in risk analysis.	2				
Lec 3	Identification and modeling of risk factors. Applications of econometric models.	3				
Lec 4	Model selection criteria.	1				
Lec 5	The concept of forecast. Basics of forecasting and simulation.	2				
Lec 6	Assessment of the forecasts quality. The role of forecasts in risk analysis.	1				
Lec 7	Use of forecasts in risk estimation and evaluation. Time series.	2				
Lec 8	Scenarios.	2				
	Total hours	15				
	Laboratory	Number of hours				
La1	Introduction. Selected IT tools supporting the performance of analyzes.	2				
La2	Performing statistical tests in the SPSS program.	2				
La3	Non-parametric tests with simple application examples in risk analysis.	2				
La4	Linear regression and its applications.	2				
La5	Model selection criteria.	2				
La6	Models supporting decision making in investment projects.	2				
La7	Econometric forecasting. Risk evaluation.	2				
La8	Time series models - forecasting.	2				

	Total hours	30
La15	Assesment.	2
La14	Time of implementation of the project in the organization. Risk factor analysis. Case study.	3
La13	The potential of forecasting models. Project cost analysis. Case study.	3
La12	Inference with the use of built models. Linear programming.	2
La11	Comprehensive analysis of the project in the organization. Case study.	2
La10	An example of a project in an organization. Risk modeling.	1
La9	Risk concepts in probabilistic terms.	1

# TEACHING TOOLS USED

- N1. Presentations.
- N2. Team work.
- N3. Statistical software. Gretl. SPSS.
- N4. Consultations.
- N5. Final test.
- N6. Written reports.

# EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F	Learning outcomes code	Way of evaluating learning outcomes achievement
<ul><li>forming</li></ul>		
during		
semester), P –		
concluding (at		
semester end)		
	PEU_W01	Written exam.
	PEU_W02	
F-Le	PEU_W03	
	PEU_W04	
	PEU_W05	
	PEU_W01	Written reports during the implementation of tasks.
	PEU_W02	Verification students' ability to use statistical software.
	PEU_W03	·
	PEU_W04	
F-La	PEU_W05	
r-La	PEU_U01	
	PEU_U02	
	PEU_U03	
	PEU_U04	
	PEU_U05	
	PEU_U01	Assessment and discussion preceded by the presentation
	PEU_U02	of the analyzes results which were carried out in the
	PEU_U03	laboratory.
F-La	PEU_U04	
	PEU_U05	
	PEU_S01	
	PEU_S02	

	DEII CO2	
	PEU_S03	
	PEU_S04	
D I o -400/ E I	01+600/ E L 02	

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- 1. Newbold P., Statistics for Business and Economics, Global Edition, Persons Education Limited, 2019
- 2. Thrane Ch. Applied Regression Analysis, Taylor & Francis Ltd 2019
- 3. Levin R.I., Statistics for Management: Pearson New International Edition. Pearson Education Limited 2013.
- 4. Aczel, A.D. Complete Business Statistics, Wohl Publishing, 2012.
- 5. Maddala G.S., Lahiri K., Introduction to Econometrics, JOHN WILEY & SONS, LTD, 2009
- 6. Field C., Data Science Handbook, JOHN WILEY & SONS, LTD, 2017

# SECONDARY LITERATURE:

- 1. Herzog M. H., Understanding Statistics and Experimental Design. Springer Nature Switzerland AG, 2019
- 2. Russo R., Statistics for the Behavioural Sciences. Taylor & Francis Ltd. 2020
- 3. Mamingi N, Theoretical and Empirical Exercises in Econometrics, University of the West Indies Press 2013
- 4. Muralidharan K., Six SIGMA for Organizational Excellence. Springer 2016
- 5. Henry D., Forecasting, Yale University Press 2019.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Mariusz Mazurkiewicz, mariusz.mazurkiewicz@pwr.edu.pl

### SUBJECT CARD

Name of subject in Polish: Seminarium dyplomowe I

Name of subject in English: Seminar I

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8015S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					15
Number of hours of total student workload (CNPS)					60
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

### SUBJECT OBJECTIVES

- C1 The aim of the seminar is to provide students with knowledge on the initial understanding the subject of the master thesis.
- C2 Creation of conditions enabling the student to choose the topic of the diploma dissertation, formulate its purpose and structure and the research problem, as well as prepare and verify the document "Declaration of the completion of the diploma thesis".

### SUBJECT EDUCATIONAL EFFECTS

Relating to skills:

PEU\_U01 Knows and is able to apply methods and techniques to solve problems in organization's management.

PEU\_U02 Is familiar with the content of the papers about management in the organization. Can choose relevant texts.

PEU\_U03 Is able to participate in discussions in the field of science about organization and

management - in Polish and in a foreign language.

Relating to social competences:

PEU\_K01 Is prepared to independently search for interesting areas of knowledge and gather information.

PEU\_K02 Can prepare arguments for persuasion and negotiation in the name of achieving common goals.

	PROGRAMME CONTENT							
Seminar								
Se1-2	Introduction to a master's thesis (requirements, literature on how to develop thesis, the diploma examination procedure).	4						
Se3	Discussion about the topics of master theses and indication of possible supervisors of these works.	2						
Se4	Discussion about the document "Declaration of the completion of the diploma thesis" and the method of its transmission to competent organizational units.							
Se5-6	Individual consultations of students and conductor of the course with possible thesis supervisors and with organizations (production, service, production and service, etc.), on the example of which write a diploma thesis is possible.							
Se7-8	Presentation the content of the document "Declaration of the completion of the diploma thesis", signed by the student, the supervisor of the diploma thesis and the course conductor. Presentation on approx. 10 slides.							
	Total hours	15						

# TEACHING TOOLS USED

- N1. Multimedia presentation.
- N2. Discussion.

### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

PEU_U02 PEU_U03 PEU_K01 PEU_K02  F1  PEU_K02  PEU_K02  PEU_Ex02  PEU_Ex02  PEU_Ex02  PEU_Ex02  PEU_Ex02  PEU_Ex02  PEU_Ex03  PEU_Ex04  PEU_Ex05  PEU_Ex06  PEU_Ex06  PEU_Ex07  PEU_Ex07  PEU_Ex07  PEU_Ex08  Preparation of the diploma thesis" approved by the supervisor and the seminar conductor (the so-called paper version). Content presentation of the Declaration at the seminar (about 10 slides - see Requirements Preparation of the E-Declaration and sending it competent organizational units (see E-Declaration Procedure). Submission of a written (paper) version the Dean's Office.	Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
Attendance is obligatory.	F1	PEU_U02 PEU_U03 PEU_K01	Preparation of the document "Declaration of the completion of the diploma thesis" approved by the supervisor and the seminar conductor (the so-called paper version). Content presentation of the Declaration at the seminar (about 10 slides - see Requirements). Preparation of the E-Declaration and sending it to competent organizational units (see E-Declaration Procedure). Submission of a written (paper) version to the Dean's Office.  Attendance is obligatory.

### PRIMARY AND SECONDARY LITERATURE

# PRIMARY LITERATURE:

- [1] Oliver, P. (2013) Writing your thesis. Sage.
- [2] Becker, H.S. (2008) Writing for Social Scientists: How to Start and Finish Your Thesis, Book, or Article. University of Chicago Press.
- [3] Literature review that relates to the topic of the thesis

# SECONDARY LITERATURE:

- [1] APA
- [2] Blair, L. (2016) Writing a graduate thesis or dissertation. Brill Sense.

# SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska agnieszka.bienkowska@pwr.edu.pl

Katarzyna Tworek, katarzyna.tworek@pwr.edu.pl

### **SUBJECT CARD**

Name of subject in Polish: Seminarium dyplomowe II

Name of subject in English: Seminar II

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory

Subject code: W08ZZZ-SM8023S

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					15
Number of hours of total student workload (CNPS)					50
Form of crediting					crediting with grade
For group of courses mark (X) final course					2
Number of ECTS points					
including number of ECTS points for practical classes (P)					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,4

\*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

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### **SUBJECT OBJECTIVES**

C1 To provide knowledge on the detailed development of the master's thesis (thesis plan, use of scientific literature, technical editing of the thesis, copyright, how to present the thesis' results at the diploma exam).

### SUBJECT EDUCATIONAL EFFECTS

relating to skills:

- PEU\_U01 Student can critically evaluate the usefulness of methods and techniques in solving research problems.
- PEU\_U02 Student can interpret and formulate conclusions from the Polish and foreign texts concerning management.
- PEU\_U03 Student can formulate and present own opinions on texts about management and quality studies.

relating to social competences:

PEU\_K01 Student is aware of the individual realization of the research and also of his views about main goals.

### PROGRAMME CONTENT

Seminar	Number of hours
Semin 1 Providing the criteria for evaluation of the thesis (creative characteristics of thesis, substantive and methodological correctness, logical, linguistic, and stylis correctness, the validity of information sources, the usefulness of the thesis practice). Discussion of the diploma examination).	tic
Discussion of the stages of developing a master's thesis. The transfer of information how to define the problem to be solved, to determine the purpose of thesis, formulate subproblems of the work (preliminary structure of the work), to collainformation necessary for the development, to determine the detailed structure the work, to write the thesis (analysis and evaluation of the problem), to formula conclusions, to prepare for the diploma exam. Presentation of diploma the sample.	to ect of ate
Discussion of the thesis construction.  Title page of the thesis (university data, the field of study, thesis title, thesis supervisor, place and year of study, keywords, abstract), introduction, chapters, subchapters and conclusion, list of figures and tables, list of attachments, etc.  Indication in the Introduction of the motivation for taking the topic, purpose, and scope of the work, discussion of the content of the work, research methods, and sources of information. The method of presenting the results of the research.  The content included in the Conclusion. The way of listing the literature: books a scripts, articles in scientific journals, papers from scientific conferences, standard legislation, websites, lecture notes, documentation of the research object, the author's works and works "edited by scientists".  Paragraphs. Footnotes, citations, thesis style, and language. Figure and tal captions and references in the text. Presentation of sample presentations at thesis exam.  Presentation of a detailed Workplan.	nd s, ole the
Semin Presentation of one of the prepared chapters of the master's thesis.  6-8	6
Total hours	15

# TEACHING TOOLS USED

- N1. Multimedia presentation. N2. Problem-based discussion.

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_U01 PEU_U02 PEU_U03 PEU_K01	Presentation
P = F1		

#### P = FI

### PRIMARY AND SECONDARY LITERATURE

## PRIMARY LITERATURE:

- [1] Oliver, P. (2013) Writing your thesis. Sage.
- [2] Becker, H.S. (2008) Writing for Social Scientists: How to Start and Finish Your Thesis, Book, or Article. University of Chicago Press.
- [3] Literature review that relates to the topic of the thesis

## SECONDARY LITERATURE:

- [1] APA
- [2] Blair, L. (2016) Writing a graduate thesis or dissertation. Brill Sense.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, agnieszka.bienkowska@pwr.edu.pl Katarzyna Tworek, katarzyna.tworek@pwr.edu.pl

#### FACULTY OF MANAGEMENT

#### SUBJECT CARD

Name of subject in Polish: Pozyskiwanie talentów i zarządzaniem procesem doboru

personelu

Name of subject in English: Talent acquisition and recruitment management.

Main field of study (if applicable): Management

Specialization (if applicable): Human Resources Management

Profile: academic

Level and form of studies: 2nd level, full-time

Kind of subject: obligatory Subject code: W08ZZZ-SM8008

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15			30	
Number of hours of total student workload (CNPS)	30			60	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points	1			2	
including number of ECTS points for practical classes (P)	0			2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	- , -			1,4	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

## **SUBJECT OBJECTIVES**

- C1 To acquaint students with the importance of the processes of acquiring employees with competences corresponding to the requirements of the workplace. Indication of the need to acquire talent for the organization. Explain the role of employees' dynamic abilities.
- C2 To acquaint students with the process of job analysis and creating a job description.
- C3 To acquaint students with the scope of stages of the selection process: recruitment, selection, introduction to work.
- C4 To acquaint students with the tools and methods used during recruitment and selection of candidates.
- C5 Developing the ability to design and conduct analysis of the workplace.
- C6 Developing the ability to create a job description.
- C7 Developing the ability to design the selection process for the selected position.
- C8 Developing the ability to design and conduct an interview.

#### SUBJECT EDUCATIONAL EFFECTS

#### Relating to knowledge

- PEU\_W01: Has specialist knowledge of human resources in the organization. Understands the necessity of acquiring talents for the organization and knows the specificity of their functioning in the organization.
- PEU\_W02: Has specialist knowledge of the dynamic abilities of employees.
- PEU\_W03: Knows the process of job analysis and creating a job description.
- PEU\_W04: Knows traditional and innovative rules and instruments used in the selection (recruitment, selection and introduction to work) of personnel (also talents in the organization) and understands the conditions for their effective use.

#### Relating to skills:

- PEU\_U01: Can select sources of information and use techniques of obtaining them (interview, questionnaire, documentation) can integrate the obtained information (including information related to the analysis of work at the workplace), interpret it, as well as draw conclusions and formulate and justify opinions in the area of personnel selection.
- PEU\_U02: Is able to identify at an advanced level, management and substantive problems in the area of personnel selection in the organization and to formulate assessments of the existing state and indicate ways of solving problems or improving the implementation of the personnel selection process.
- PEU\_U03: Has the ability to prepare an expert opinion in the form of a written report.
- PEU\_U04: Has the ability to present the results of diagnostic tests and defend the presented conclusions.
- PEU\_U05: Has the ability to design and conduct an interview.

### Related to social competences:

- PEU\_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. Presents courage in conveying and defending their views. Prepared to persuade and negotiate in order to achieve common goals.
- PEU\_K02: Able to cooperate and work in group and team forms of work organisation. Shows readiness to organise and manage the work of teams unassisted.
- PEU\_K03: Shows readiness to identify, critically analyse and resolve problems arising at the workplace. Able to anticipate the effects of made decisions.
- PEU\_K04: Shows readiness to unassisted to conduct flexible searches and use critical selection of methods and tools in solving problems arising at the workplace.
- PEU\_K05: 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.
- PEU\_K06: 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.

	PROGRAMME CONTENT				
	Lecture	Number of hours			
Lec 1	Introduction, discussion of the lecture program. The issue of the optimal selection of employees to the organization.	2			

Lec 2	Job analysis, creating a job description.	2		
Lec 3	Dynamic abilities of employees - role and importance in the organization.	2		
	Selection process - recruitment (planning the recruitment method and channels, rules for creating a job advertisement). Modern methods of acquiring candidates.	2		
	Selection process - selection (methods and tools used in the selection process, candidate selection).	2		
Lec 6	Selection process - introduction to work (onboarding programs).	2		
	Lec 7 Evaluation of the selection process, the impact of the selection process on the employment structure in the organization.			
Lec 8	Final test	1		
	Total hours	15		
	Project	Number of hours		
Proj 1	Presentation of the purpose of the classes and assessment criteria. Explanation of the project topic, a detailed explanation of how the project is to be implemented. Establishment of project teams.	2		
Proj2	Overview of individual tasks that make up the project work. Discussion of the structure of the written report.	2		
Proj3-4	Work in project teams - designing the job analysis process.	4		
Proj5	Work in project teams - development of job description cards based on the performed job analysis.	2		
Proj6	Presentation 1 - presentation of the results of the work analysis process and the design of the job description card.	2		
Proj7-9	Work in project teams - designing the selection process (recruitment, selection and introduction to work) for the selected job position.	6		
	Presentation 2 - presenting projects of the selection process for a selected job position	4		
Proj12- 14	Conducting interviews for selected job positions.  Discussion. Assessment of interviews. Indication of advantages and disadvantages.	6		
Proj15	Summary of classes. Discussion of conclusions from the evaluation of written reports.	2		
	Total hours	30		

## TEACHING TOOLS USED

- N1. Presentation of knowledge in the form of direct transmission (lecture) audiovisual media. N2. Lecture, lecture materials available in electronic form.
- N3. Work in diagnostic teams consultations with the teacher
- N4. Problem discussion.
- N5. Student's own work independent studies and preparation for a final test.
- N6. Written report.
- N7. Student presentation using media for multimedia presentations.
- N8. Simulation talks.

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
P <sub>w</sub> = F1 (last lecture)		Test checking the knowledge at the end of the semester. Passing each effect: at least 50% of points possible to get from the questions assigned to a given effect.
F2	PEU_U01 - PEU_U03; PEU_K01- PEU_K06	Assessment of the substantive content and preparation of an expert opinion in the form of a written report.
F3	PEU_U04; PEU_K01- PEU_K06	Assessment of the ability to present the results of diagnostic tests.
$P_p = 0.5*F2 + 0.$	PEU_K06	Assessment of the project and conducting the interview (during the simulation interview).

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management practice.
- [2] Bieńkowska A., Tworek K., Job performance model based on Employees' Dynamic Capabilities (EDC). Sustainability. 2020, vol. 12, nr 6, art. 2250, s. 1-25.
- [3] Newell, S. (2005). Recruitment and selection. Managing human resources: Personnel management in transition, 115-147.
- [4] Lievens, F., & Chapman, D. (2010). Recruitment and selection. The SAGE handbook of human resource management, 135-154.

#### SECONDARY LITERATURE:

- [1] Lewis, R. E., & Heckman, R. J. (2006). Talent management: A critical review. Human resource management review, 16(2), 139-154.
- [2] Cappelli, P. (2008). Talent management for the twenty-first century. Harvard business review, 86(3), 74.

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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#### FACULTY OF MANAGEMENT

#### SUBJECT CARD

Name of subject in Polish: Szkolenie i rozwój

Name of subject in English: Training and development

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8024P

Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				30	
Number of hours of total student workload (CNPS)				75	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				3	
including number of ECTS points for practical classes (P)	)			3	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	l			2,1	

## PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. basic knowledge in the field of human resource management

#### SUBJECT OBJECTIVES

- C1. Developing competences to identify and analyze training needs in an organization
- C2. Developing competences in planning, designing and running a training program in an organization
- C3. Developing competencies in the evaluation of a training program

#### SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU\_W01 He knows what phases make up the training process and knows the tools and methods of designing activities at each stage

Relating to skills:

PEU\_U01 Is able to design the process and analyze training needs in an organization

PEU U02 Is able to design a training program for a selected organization

PEU\_U03 Is able to select the appropriate scope of training and teaching methods for the proposed training program in a selected organization

- PEU\_U04 Can design tools to evaluate the effectiveness of a training program
- PEU\_U05 Can develop a comprehensive training project program in the form of a written report for a selected organization
- PEU\_U06 Can select sources of information and use techniques for obtaining them (interview, questionnaire, documentation) can integrate the obtained information, interpret it, as well as draw conclusions and formulate and justify opinions in the area of training and development.

Relating to social competences:

- PEU\_K01 Is prepared to initiate changes in the organization and participate in their planning and implementation.
- PEU\_K02 Is able to cooperate and work in team in the organization. Can properly set priorities in own work and in cooperation with others.
- PEU\_K03 Is aware of the responsibility for own work and readiness to submit to the priorities set by others and be responsible for the tasks performed independently or in a team.
- PEU\_K04 Understands the essence of a comprehensive approach to designing training programs in an organization

	PROGRAMME CONTENT				
Project					
Proj 1	Presentation of the purpose of the classes and assessment criteria. Explanation of the project topic, a detailed explanation of how the project is to be implemented. Establishment of project teams.	2			
Proj 2	Overview of individual tasks of the project work. Discussion of the structure of the written report.	2			
Proj 3- 4	Work in project teams - designing the training needs process Consulting, assessing the advancement of students' work.	4			
Proj 5	Presentation of project teams no. 1 - plan and tools for analyzing and identifying training needs in a selected organization	2			
Proj6	Work in project teams - preparation of a report on the analysis of training needs Consulting, assessing the advancement of students' work	2			
Proj7	Presentation of project teams no. 2 - a report on the training needs analysis	2			
Proj8- 10	Work in project teams - designing a training program along with the assessment of effectiveness for a selected organization.  Consulting, assessing the advancement of students' work.	6			
Proj11- 14	Presentation of project teams no. 3 - presentation of the complex training program for the selected organization. Discussion and evaluation of the presentation.	8			
Proj15	Summary of classes. Discussion of conclusions from the evaluation of written reports.	2			
	Total hours	30			

## **TEACHING TOOLS USED**

- N1. Consultations
- N2. Student presentation using media for multimedia presentations
- N3. Problem discussion
- N4. Written report
- N5. Field research in a selected organization
- N6. Self-study using the e-learning platform

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

<b>Evaluation</b> (F –	Learning	Way of evaluating learning outcomes achievement
forming during	outcomes code	
semester), P –		
concluding (at		
semester end)		
F1	PEU_U01	Group work, activity during classess
	PEU_U02	
	PEU_U03	
	PEU_U04	
	PEU_K02	
	PEU_K03	
F2	PEU_U01	Presentation of the plan and tools for analyzing and identifying
		training needs in a selected organization
F3	PEU_U01	Presentation of the report on the analysis of training needs
	PEU_U06	
F4	PEU_U02	Presentation the draft of the training program for the selected
	PEU_U03	organization
	PEU_U04	
	PEU_K04	
F5	PEU_W01	A draft training program for the selected organization in the
	PEU_U05	form of a written report
	PEU_K01	
	PEU_K04	
P = F1 + F2 + F3 + F	F4+F5	

The student must obtain min. 60% of points in each form of evaluation

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Stanley C. Ross: Training and Development in Organizations. An Essential Guide for Trainers, Routledge, 2019
- [2] P. Nick Blanchard, James W. Thacker: Effective Training, Systems, Strategies, and Practices, Pearson, 2013.
- [3] Tom Boydell, Malcolm Leary: Identifying Training Needs, Beekman Books, Incorporated, 2000.
- [4] Leslie Rae: Effective Planning in Training and Development, Kogan Page, 2000.
- [5] Donald L Kirkpatrick: Evaluating Training Programs, The Four Levels, Berrett-Koehler Publishers, Inc., 2006.
- [6] Patricia Phillips, Jack J. Phillips, Ron Stone, Holly Burkett: The ROI Fieldbook: Strategies for Implementing ROI in HR and Training, Butterworth-Heinemann, 2007.

#### SECONDARY LITERATURE:

- [1] Human Resource Development Learning and Training for Individuals and Organizations by John P Wilson, John P. Wilson
- [2] Effective Planning in Training and Development. Leslie Rae
- [3] Copies of scientific articles about HRM for lectures (available on e-learning platform)

## SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Kamila Ludwikowska, kamila.ludwikowska@pwr.edu.pl

#### FACULTY OF MANAGEMENT

#### SUBJECT CARD

Name of subject in Polish Fizyka środowiska pracy II Name of subject in English Work environment physics II

Main field of study (if applicable): Management

Specialization (if applicable): Human Resource Management

Profile: academic

Level and form of studies: 2nd level, full-time studies

Kind of subject: obligatory

Subject code: W08ZZZ-SM8016P

Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)				15	
Number of hours of total student workload (CNPS)				60	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				2	
including number of ECTS points for practical classes (P)				2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,4	

#### PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

- 1. Intermediate computer skills (text editing, spreadsheets, basics of editing raster graphics).
- 2. Completed the "Physics" course or an equivalent at the 1st level of education

#### SUBJECT OBJECTIVES

- C1: Practical mastery of methods and tools for measuring physical factors of the work environment and assessing their impact on the employee.
- C2: Mastering the practical methods and tools of ergonomic adjustment of working conditions to the requirements, needs and limitations of a person.

## SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU\_W01: student understands the difference between the objective and subjective approach to the problems of measuring and assessing the impact of the physical environment on the employee.
- PEU\_W02: the has the knowledge that allows the correct selection of methods and tools for the implementation of a comprehensive assessment of working conditions at a given workstation

relating to skills:

- PEU\_U01: student is able to measure selected factors of the physical work environment, determine the degree of fulfillment of selected parameters specified in European standards, interpret their results in the context of the impact on the employee, and then formulate recommendations to improve his well-being.
- PEU\_U02: student is able to assess the level of ergonomic adjustment of working conditions and to ix the direction and details of technical changes to their improvement.

relating to social competences:

PEU\_K01: student uses the potential of group work, actively participating in the assignment of tasks and their implementation on time.

Project	Number of
, and the second	hours
Proj 1 Introduction to the course. Explanation of the rules and conditions for passing.	1
Proj 2 Technical aspects of measuring physical factors of the work environment.  Measurements of lighting intensity, noise level and basic microclimate parameters.	2
Proj 3 Modeling the influence of the microclimate on the employee. Determining the range of values of microclimatic parameters enabling comfortable work with a given degree of physical activity.	2
Proj 4 Noise in the workplace. Optimization of the mutual position of noise sources and workplaces, the use of barriers and sound-absorbing systems to reduce noise exposure.	2
Proj 5 Subjective methods of assessing the influence of the physical environment and working conditions on the employee. Measurement of subjective work-related fatigue.	2
Proj 6 Application of selected principles of universal design in the design of workplaces.	2
Proj 7 Physical work nuisance factors. Assessment of static workload with the selected method.	2
Proj 8 Physical work nuisance factors. Assessment of the degree of monotypic work with the selected method.	2
Total hours	15
TEACHING TOOLS USED	

#### EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

N1. Materials and instructions available on the eportal

N2. Forms supporting group activity - e.g. padlet, menti.com N3. Presentation of the results of project work by students

	Learning outcomes code	Way of evaluating learning outcomes achievement
forming during semester), P –	code	
concluding (at		
semester end)		
F1	PEU_W01	Individual activity in the classroom, documentation of

	PEU_W02	project work
F2	PEU_U01 PEU_U02	Assessment for a project carried out in a group of three or two
F3	PEU_W01 PEU_W02 PEU_U01 PEU_U02	Presentation of the project results or its selected part
P P=0,4F1+0,2*F2+0,2*F3		

#### PRIMARY AND SECONDARY LITERATURE

#### PRIMARY LITERATURE:

- [1] Guastello S.G., Human factors engineering and ergonomics: a systems approach. Lawrence Erlbaum Associates, 2006.
- [2] Kroemer, Karl H. E., Ergonomics: how to design for ease and efficiency, Prentice Hall, 2001
- [3] Proctor R.W., Van Zandt T., Human factors in simple and complex systems. Second edition, CRC Press, 2008
- [4] Salvendy, Gavriel (red), Handbook of Human Factors and Ergonomics, John Wiley & Sons, 2006; electronic access
- [5] Preiser, W. F., Smith, K. H. Universal Design Handbook. New York: Mcraw-Hill, 2011
- [6] European standards in the ergonomic field

#### SECONDARY LITERATURE:

- [7] Grandjean E., Fitting the task to the man. An ergonomic approach, Taylor & Francis, London 1980
- [8] Nowak E., Atlas antropometryczny populacji polskiej dane do projektowania. The Anthropometric Atlas of Polish Population Data for Design, IWP Warszawa, 2001
- [9] Norman D., The design of everyday things, Currency and Doubleday, 1990

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