

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: first-level (bachelor)

FORM OF STUDIES: full-time studies

PROFILE: general academic

LANGUAGE OF STUDY:

POLISH: specialization Zarządzanie Przedsiębiorstwem

ENGLISH: specialization Organizational 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 Wrocław University of Science and Technology

In effect since 2023/2024

ASSUMED LEARNING OUTCOMES

FACULTY OF MANAGEMENT

MAIN FIELD OF STUDY: MANAGEMENT

EDUCATION LEVEL: first-level (licencjat) 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

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

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

* delete as applicable

Main field of study learning outcomes	Description of learning outcomes for the main-field-of study MANAGEMENT	Reference to PRK characteristics		
		Universal first degree characteristics (U)	Second degree characteristics typical for qualifications obtained in higher education (S)	
			Characteristics for qualifications on 6 levels of PRK	Characteristics for qualifications on 6 and 7 levels of PRK, enabling acquiring engineering competences
KNOWLEDGE (W)				
K1_ZARZ_W01	Has a structured understanding of the evolution of management and quality sciences. Explains the nature and position of management and quality sciences within the scientific system, as well as their relationships with other social, economic, and technical disciplines.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W02	Possesses structured knowledge in the field of economics and its relationships with management, quality sciences, and technical disciplines. Understands and describes different types of economic systems and their components. Has a thorough understanding of economic concepts, laws, and interdependencies at both the microeconomic and macroeconomic levels. Characterizes the main economic theories. Possesses advanced knowledge of the objectives and institutions of a market economy, as well as their functions. Has an understanding of the economic conditions that influence the functioning of the economy and organizations.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W03	Understands and is familiar with the key legal regulations governing the establishment and operation of business organizations. Has knowledge of the concepts and principles of industrial property protection and copyright law. Possesses an understanding of the legal conditions affecting the functioning of organizations	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W04	Understands and knows how to identify inter-organizational relationships and the interactions of organizations with their environment in the context of national, international, and cross-cultural conditions. Possesses knowledge of the impact of the external environment on the organization.	P6U_W	P6S_WK	
K1_ZARZ_W05	Understands the types and forms of organizations, and is able to identify their objectives and other key elements. Possesses structured knowledge of the fundamental concepts related to the development and functioning of organizations.	P6U_W	P6S_WG P6S_WK	

K1_ZARZ_W06	Understands the essence and functions of management and trends (schools) in the theory of organisation and management. Knows selected management concepts, methods and techniques. Distinguishes key criteria for their classification.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W07	Possesses knowledge of traditional and contemporary organizational structures, the factors that shape them, and the processes involved in their formation.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W08	Possesses structured knowledge of the functional areas of a company, the relationships between them, and the key factors influencing the efficiency and effectiveness of activities carried out in these areas.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W09	Understands and identifies key concepts, characterizes methods and tools related to marketing and sales. Explains the essence of marketing management within an organization. Possesses knowledge of consumer behaviors.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W10	Understands and characterizes the elements of the financial system. Possesses knowledge in the areas of accounting, corporate finance, and financial management. Familiar with financial reporting standards and methods for assessing the economic and financial situation of an organization, as well as investment performance evaluation.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W11	Possesses in-depth knowledge of human resources within an organization and their strategic significance. Understands the objectives, elements, and conditions of the personnel management process. Identifies and classifies tools for employee selection, motivation, development, evaluation, and compensation, as well as the principles for their effective application.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W12	Understands key concepts and tools related to production and service management. Possesses advanced knowledge of the functioning of production systems and processes. Familiar with methods of production and service management.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W13	Possesses advanced knowledge of logistics systems and processes, and distinguishes their components. Understands the objectives and functions of logistics within an organization and throughout the supply chain.	P6U_W	P6S_WG P6S_WK	

K1_ZARZ_W14	Explains the essence and significance of quality issues in management, and understands the concepts, objectives, principles, and challenges of quality management. Identifies areas for improving the quality of resources, structures, processes, and procedures, along with their conditions, ultimately enhancing the quality of products and services. Understands the idea of standardization and certification within an organization.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W15	Possesses advanced knowledge of methods and techniques for diagnosing and improving operations in various functional areas of an organization, as well as selected methods for analyzing the business environment. Familiar with specific industry norms and standards within different functional areas.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W16	Possesses knowledge in psychology, organizational sociology, and the humanities. Interprets concepts of human behavior and explains motivation theories. Characterizes the essence and conditions of leadership.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W17	Understands the ethical, humanistic, and social conditions of various types of professional activities. Understands and analyzes the fundamental dilemmas of contemporary civilization.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W18	Possesses advanced knowledge of organizational behavior and its determinants. Understands the principles of building and functioning teams, as well as the factors influencing their effectiveness. Describes the concept of organizational culture and its significance in management. Familiar with advanced communication tools and systems in organizations, as well as the characteristics of an efficient communication process.	P6U_W	P6S_WK	
K1_ZARZ_W19	Explains the essence of change management within an organization, identifies sources of resistance to change, and outlines strategies for overcoming that resistance.	P6U_W	P6S_WG	
K1_ZARZ_W20	Explains the essence, objectives, and principles of project management. Familiar with methods and tools used in project management.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W21	Explains the concept of innovation and distinguishes between its various types. Recognizes the characteristics and conditions of organizational innovativeness. Describes the innovation process occurring within an organization. Characterizes the essence and forms of entrepreneurship and identifies the factors that contribute to its emergence and development.	P6U_W	P6S_WG	

K1_ZARZ_W22	Understands the principles of physics and explains the impact of the physical work environment on employee workload.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W23	Familiar with mathematical methods (e.g., vector and matrix calculus, optimization of functions, differential and integral calculus for single and multiple variables) used in economics and management and quality sciences.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W24	Possesses knowledge of the construction and application of mathematical and informatics tools in various functional areas of an organization.	P6U_W	P6S_WG	
K1_ZARZ_W25	Knows advanced statistical methods and information technology tools for collecting, analyzing, and presenting data that describe economic and social processes.	P6U_W	P6S_WG P6S_WK	
K1_ZARZ_W26	Knows the classifications of management information systems and the functionalities of information systems used in various areas of an organization. Describes the methods for selecting and implementing management information systems, as well as the challenges and issues associated with them.	P6U_W	P6S_WG	
K1_ZARZ_W27	Familiar with advanced methods, techniques, and tools used for solving managerial problems.	P6U_W	P6S_WG P6S_WK	
SKILLS (U)				
K1_ZARZ_U01	Has the ability to plan business activities, including selecting the appropriate organizational and legal structure, formulating organizational objectives, and developing actions to efficiently achieve these goals.	P6U_U	P6S_UW	
K1_ZARZ_U02	Analyzes and evaluates the objectives, characteristics, elements, processes, and functional areas within an organization, as well as internal and inter-organizational relationships, using concepts and theories from economics and management.	P6U_U	P6S_UW	
K1_ZARZ_U03	Analyzes the causes and dynamics of phenomena within the organization and its environment. Identifies and diagnoses management and substantive issues within the organization and its functional areas.	P6U_U	P6S_UW	
K1_ZARZ_U04	Utilizes selected methods and tools (including mathematical, statistical, and informatics) to identify, analyze, and solve management and substantive issues within the organization and its functional areas.	P6U_U	P6S_UW	
K1_ZARZ_U05	Utilizes normative systems and applies appropriate norms and standards (legal, professional, and ethical) in specific activities within the organization.	P6U_U	P6S_UW	

K1_ZARZ_U06	Formulates alternative solutions to management and substantive issues within the organization and its various functional areas. Selects a solution and verifies it according to established priorities.	P6U_U	P6S_UW	
K1_ZARZ_U07	Applies principles and tools of planning and resource management to effectively execute individual and team tasks.	P6U_U	P6S_UW	
K1_ZARZ_U08	Develops change management plans for the organization by utilizing appropriate methods.	P6U_U	P6S_UW	
K1_ZARZ_U09	Identifies, interprets, and evaluates the behaviors of organization members and employs advanced techniques to influence these behaviors	P6U_U	P6S_UW	
K1_ZARZ_U10	Applies methods and techniques, as well as assessment and forecasting metrics, to evaluate the outcomes of the organization's activities.	P6U_U	P6S_UW	
K1_ZARZ_U11	Selects or creates information tools that support the resolution of management and substantive issues within the organization and its various functional areas.	P6U_U	P6S_UW	
K1_ZARZ_U12	Applies theoretical knowledge from the field of physics to optimize working conditions, taking into account the physical work environment.	P6U_U	P6S_UW	
K1_ZARZ_U13	Possesses skills to analyze research examples and conduct studies in the field of management and quality sciences. Able to formulate conclusions, develop and present findings, and identify directions for further research	P6U_U	P6S_UW	
K1_ZARZ_U14	Independently utilizes a variety of Polish and foreign sources of information, particularly from professional literature. Analyzes the information obtained and applies it to expand specialized knowledge in the field of management and quality sciences.	P6U_U	P6S_UW	
K1_ZARZ_U15	Can express themselves (both orally and in writing), participate in discussions, present their viewpoints (e.g., in a debate), and assess these viewpoints in terms of social and ethical consequences. Is capable of independently planning and executing their lifelong learning.	P6U_U	P6S_UW P6S_UK P6S_UO P6S_UU	
K1_ZARZ_U16	Employs advanced methods, techniques, and tools to solve managerial problems.	P6U_U	P6S_UW P6S_UK P6S_UO P6S_UU	
K1_ZARZ_U17	The student is able to use a foreign language at the B2 level of the Common European Framework of Reference for Languages (CEFR)	P6U_U	P6S_UU	

SOCIAL COMPETENCES (K)				
K1_ZARZ_K01	Is aware of the necessity to develop their professional knowledge and skills. They are adequately prepared to independently solve problems and to seek expert opinions when faced with difficulties.	P6U_K	P6S_KK P6S_KR	
K1_ZARZ_K02	Is ready to collaborate in team-based work arrangements (taking on various roles, especially as managers and business leaders). Is prepared to organize and lead small teams.	P6U_K	P6S_KO P6S_KR	
K1_ZARZ_K03	Is ready to take responsibility for assigned tasks, primarily in the workplace. Is prepared to set priorities in their own work and in collaboration with others while fulfilling various organizational roles.	P6U_K	P6S_KK P6S_KO P6S_KR	
K1_ZARZ_K04	Is prepared to identify and analyze social issues in the workplace and to propose solutions for addressing them	P6U_K	P6S_KO P6S_KR	
K1_ZARZ_K05	Is prepared to initiate changes in the workplace and to participate in their planning and implementation. Is ready to think and act in an entrepreneurial manner.	P6U_K	P6S_KK P6S_KO	
K1_ZARZ_K06	Is prepared to communicate and defend their own views, as well as to independently and critically assess their knowledge and the information they receive. Is ready to behave in a professional and ethical manner (including in the workplace).	P6U_K	P6S_KK P6S_KO P6S_KR	
K1_ZARZ_K07	Is aware of the necessity to engage in activities for the public interest and the social environment.	P6U_K	P6S_KK P6S_KR	

SPECJALNOŚĆ/SPECIALTY:

**Zarządzanie
przedsiębiorstwem**

DESCRIPTION OF THE PROGRAM OF STUDIES

Main field of study: Management

Profile: general academic

Level of studies: first-level studies

Form of studies: full-time studies

1. General description

1.1 Number of semesters: 6	1.2 Total number of ECTS points necessary to complete studies at a given level: 180
1.3 Total number of hours: 2160	1.4 Prerequisites (particularly for second-level studies): 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: bachelor	1.6 Graduate profile, employability: "We educate business leaders who are able to face both social and technological challenges" We achieve this goal through: 1. Shaping business competences Our graduate is prepared to independently run a business and carry out activities in business entities, especially based on innovative ideas and innovative business models. Acquires basic competences in the area of management organization, finance, accounting, logistics and production, marketing and sales, and personnel. During his studies, he/she develops skills and an entrepreneurial attitude, which manifests itself in initiative in taking actions and a creative

	approach to solving complex problems. Our graduate is focused on team solving real management problems, using competences in the field of process and project management. 2. Shaping analytical competences Our graduate understands the material, financial and social processes and phenomena occurring in organizations and their environment. He/she can think analytically and uses for this purpose the basic mathematical and statistical apparatus as well as the skills of logical thinking and inference. 3. Shaping social competences Our graduate is prepared to fulfill the role of a leader. He/she is characterized by the ability to lead, communicate effectively, negotiate, self-presentation, work in a team, and manage the work of human teams. He/she is prepared to effectively plan and continue their own education and professional development. 4. Shaping IT and technological competences Our graduate can select and use modern IT tools, including utility applications, to support processes in various areas of the organization. He/she understands the need and is able to use mobile technologies in the management and development of the organization.
<i>1.7 Possibility of continuing studies:</i> Eligibility to apply for admission to second-cycle study programmes, nondegree postgraduate programmes	<i>1.8 Indicate connection with University's mission and its development strategy:</i> 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 learning, carried out in the form of projects in specific organizations;

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	• 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 bachelor 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 master studies and carry out their own research. They also are conscious of the need for constant self-development in cooperation with their alma mater.

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2. Detailed description

2.1 Total number of learning outcomes in the program of study: W (knowledge) = 27, U (skills) = 17, K (competences) = 7,
W+U+K = 51

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) 161 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 learning outcomes of our undergraduate studies satisfy the following needs of employers on the job market:

- The need for employees to have interdisciplinary skills (small and medium-sized enterprises);
- The ability to work independently, but also cooperate with other employees to diagnose problems, as well as propose and implement solutions in specific functional groups within a firm (medium-sized and large enterprises);
- Openness to applying novel management methods and techniques, as well as tools from information technology;

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- Flexibility and openness to innovations: entering new professions – according to the website pracuj.pl - e.g. analysts of investment processes, e-business specialists (e-marketers and e-architects), project management.
- „Traditional” specialists in the field of marketing, finance, human resources, production management, logistics and IT are still in high demand on the employment market. However, they must be highly skilled, both technically and socially, in order to satisfy the demands of employers described above. Our program of undergraduate studies in Management, together with the experience of the teaching staff, create the conditions for students to develop these skills through their studies.

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) **93,3 ECTS**. The maximum number of ECTS carried out remotely with the consent of the Dean of the Faculty is 75%.

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

Number of ECTS points for obligatory subjects	22
Number of ECTS points for optional subjects	0
Total number of ECTS points	22

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	55
Number of ECTS points for optional subjects	50
Total number of ECTS points	105

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)
9 ECTS points

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⁴University-wide course /group of courses – enter O

⁵DN - 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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2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points)
54 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.

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³Exam – 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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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. 5 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0102G	Psychology (GK)	1				2	K1_ZARZ_W16 K1_ZARZ_U09 K1_ZARZ_K04; K1_ZARZ_K06	45	50	2	2	1,8	T/Z	Z		DN	P(1)	KO
2	W08ZZZ-SL0105G	Sociology (GK)	2				2	K1_ZARZ_W16; K1_ZARZ_W17; K1_ZARZ_W19 K1_ZARZ_U09 K1_ZARZ_K03; K1_ZARZ_K04; K1_ZARZ_K07	60	75	3	3	2,4	T/Z	Z		DN	P(2)	KO
Total			3	0	0	0	4		105	125	5	5	4,2						

4.1.1.2 Foreign languages block (min. ECTS points):

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.1.1.3 Sporting classes block (0 ECTS points):

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

4.1.1.4 Information technologies block (min. ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0005G	Information Technology (GK)	1		1			K1_ZARZ_W25 K1_ZARZ_U04; K1_ZARZ_U11	30	60	2	2	1,0	T/Z	Z		DN	P(1)	K
		Total	1	0	1	0	0		30	60	2	2	1,0						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
4	0	1	0	2	135	185	7	7	5,2

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

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 courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			Univer sity-wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W13ZZZ-SL0001G	Mathematics (GK)	2	2				K1_ZARZ_W23 K1_ZARZ_U13 K1_ZARZ_K01	60	270	9		7,0	T	E (w)	O		P (4)	PD
2	W08ZZZ-SL0106W	Descriptive Statistics	2					K1_ZARZ_W24; K1_ZARZ_W25 K1_ZARZ_U04; K1_ZARZ_U11	30	90	3	3	1,0	T/Z	E		DN		PD
3	W08ZZZ-SL0106L	Descriptive Statistics			2				30	60	2	2	1,0	T/Z	Z		DN	P	PD
4	W08ZZZ-SL0119W	Mathematical Economics	2					K1_ZARZ_W02; K1_ZARZ_W23; K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_K07	30	60	2	2	1,0	T/Z	Z		DN		PD
5	W08ZZZ-SL0119C	Mathematical Economics		1					15	60	2	2	0,5	T/Z	Z		DN	P	PD
Total			6	3	2	0	0		165	540	18	9	10,5						

4.1.2.2 Physics block

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			Univer sity-wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0099W	Work Environment Physics	1					K1_ZARZ_W22 K1_ZARZ_U12 K1_ZARZ_K05	15	30	1	1	0,5	T/Z	Z		DN		PD
2	W08ZZZ-SL0099L	Work Environment Physics			1				15	30	1	1	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL0099P	Work Environment Physics				2			30	60	2	2	1,0	T/Z	Z		DN	P	PD
Total			1	0	1	2	0		60	120	4	4	2,0						

4.1.2.3 Chemistry block

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether for basic sciences 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
7	3	3	2	0	225	660	22	13	12,5

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 courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0132W	Marketing Research	2					K1_ZARZ_W09; K1_ZARZ_W15; K1_ZARZ_W25 K1_ZARZ_U14; K1_ZARZ_U04;	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL0132P	Marketing Research				2		K1_ZARZ_U13; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
3	W08ZZZ-SL0120W	Corporate finance	2					K1_ZARZ_W04; K1_ZARZ_W10 K1_ZARZ_U14; K1_ZARZ_U07;	30	75	3	3	1,2	T/Z	Z		DN		K
4	W08ZZZ-SL0120C	Corporate finance		2				K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
5	W08ZZZ-SL0123W	Logistics	1					K1_ZARZ_W08; K1_ZARZ_W13 K1_ZARZ_U14; K1_ZARZ_U07;	15	25	1	1	0,6	T/Z	Z		DN		K
6	W08ZZZ-SL0123L	Logistics			1			K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K02	15	25	1	1	0,6	T/Z	Z		DN	P	K

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

7	W08ZZZ-SL0006W	Macroeconomics	2					K1_ZARZ_W01; K1_ZARZ_W02; K1_ZARZ_W04 K1_ZARZ_U02; K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
8	W08ZZZ-SL0006C	Macroeconomics		2				K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
9	W08ZZZ-SL0133W	Methods and tools of making decisions	1					K1_ZARZ_W24 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U06; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN		K
10	W08ZZZ-SL0133L	Methods and tools of making decisions			1			K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	15	50	2	2	0,6	T/Z	Z		DN	P	K
11	W08ZZZ-SL0134W	Organizational Methods and Techniques	1					K1_ZARZ_W07; K1_ZARZ_W18 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U06; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K02; K1_ZARZ_K03	15	25	1	1	0,6	T/Z	Z		DN		K
12	W08ZZZ-SL0134C	Organizational Methods and Techniques		1				K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K02; K1_ZARZ_K03	15	25	1	1	0,6	T/Z	Z		DN	P	K
13	W08ZZZ-SL0100W	Microeconomics	2					K1_ZARZ_W01; K1_ZARZ_W02; K1_ZARZ_W04 K1_ZARZ_U02; K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
14	W08ZZZ-SL0100C	Microeconomics		2				K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
15	W08ZZZ-SL0103W	Organizational Science	2					K1_ZARZ_W05; K1_ZARZ_W04 K1_ZARZ_U02; K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05; K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN		K
16	W08ZZZ-SL0103S	Organizational Science					1	K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05; K1_ZARZ_K07	15	25	1	1	0,6	T/Z	Z		DN	P	K
17	W08ZZZ-SL0124W	Financial planning and modeling	1					K1_ZARZ_W08; K1_ZARZ_W10 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN		K
18	W08ZZZ-SL0124L	Financial planning and modeling			2			K1_ZARZ_U14; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K

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⁴University-wide course /group of courses – enter O

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⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

19	W08ZZZ-SL0016W	Principles of Marketing	2					K1_ZARZ_W09 K1_ZARZ_U14; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
20	W08ZZZ-SL0016C	Principles of Marketing		2					30	50	2	2	1,2	T/Z	Z		DN	P	K
21	W08ZZZ-SL0101W	Fundamentals of Management	2					K1_ZARZ_W05; K1_ZARZ_W04; K1_ZARZ_W06; K1_ZARZ_W07; K1_ZARZ_W08; K1_ZARZ_W18 K1_ZARZ_U02; K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
22	W08ZZZ-SL0101C	Fundamentals of Management		2					30	50	2	2	1,2	T/Z	Z		DN	P	K
23	W08ZZZ-SL0165G	Managers law (GK)	2	2				K1_ZARZ_W03; K1_ZARZ_W05 K1_ZARZ_U01; K1_ZARZ_U05; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K06; K1_ZARZ_K07	60	75	3	3	2,4	T/Z	Z		DN	P(2)	K
24	W08ZZZ-SL0145W	Management Information Systems (GK)	2		1		1	K1_ZARZ_W24; K1_ZARZ_W26 K1_ZARZ_U14; K1_ZARZ_U06; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K06	60	75	3	3	2,4	T/Z	Z		DN	P(2)	K
25	W08ZZZ-SL0033L	Management Training			2			K1_ZARZ_W15; K1_ZARZ_W24 K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U17	30	50	2	2	1,2	T/Z	Z		DN	P	K
26	W08ZZZ-SL0122W	Organizational behavior	2					K1_ZARZ_W04; K1_ZARZ_W08; K1_ZARZ_W18; K1_ZARZ_W19 K1_ZARZ_U02; K1_ZARZ_U09; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
27	W08ZZZ-SL0122C	Organizational behavior		2					30	50	2	2	1,2	T/Z	Z		DN	P	K

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⁴University-wide course /group of courses – enter O

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⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

28	W08ZZZ-SL0135W	Financial Management	2					K1_ZARZ_W10 K1_ZARZ_U14; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K03; K1_ZARZ_K07	30	75	3	3	1,2	T/Z	E		DN		K
29	W08ZZZ-SL0135C	Financial Management		1				K1_ZARZ_W14 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05	15	50	2	2	0,6	T/Z	Z		DN	P	K
30	W08ZZZ-SL0022W	Quality Management	2					K1_ZARZ_W14 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05	30	75	3	3	1,2	T/Z	E		DN		K
31	W08ZZZ-SL0022P	Quality Management				1		K1_ZARZ_W14 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
32	W08ZZZ-SL0022S	Quality Management					1	K1_ZARZ_W14 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
33	W08ZZZ-SL0125W	Marketing management (GK)	1				2	K1_ZARZ_W08; K1_ZARZ_W09 K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U06; K1_ZARZ_U08; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K03	45	50	2	2	1,8	T/Z	Z		DN	P(1)	K
34	W08ZZZ-SL0136W	Personnel Management	2					K1_ZARZ_W11; K1_ZARZ_W18 K1_ZARZ_U14; K1_ZARZ_U05; K1_ZARZ_U07; K1_ZARZ_U09; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K04; K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN		K
35	W08ZZZ-SL0136P	Personnel Management					2	K1_ZARZ_W11; K1_ZARZ_W18 K1_ZARZ_U14; K1_ZARZ_U05; K1_ZARZ_U07; K1_ZARZ_U09; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K04; K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	K
36	W08ZZZ-SL0136S	Personnel Management					1	K1_ZARZ_W11; K1_ZARZ_W18 K1_ZARZ_U14; K1_ZARZ_U05; K1_ZARZ_U07; K1_ZARZ_U09; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K04; K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
37	W08ZZZ-SL0137W	Business Process Management	2					K1_ZARZ_W08; K1_ZARZ_W15 K1_ZARZ_U06; K1_ZARZ_U08; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K05	30	75	3	3	1,2	T/Z	E		DN		K
38	W08ZZZ-SL0137C	Business Process Management		1				K1_ZARZ_W08; K1_ZARZ_W15 K1_ZARZ_U06; K1_ZARZ_U08; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
39	W08ZZZ-SL0137L	Business Process Management			1			K1_ZARZ_W08; K1_ZARZ_W15 K1_ZARZ_U06; K1_ZARZ_U08; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
40	W08ZZZ-SL0018W	Production and services management	2					K1_ZARZ_W12 K1_ZARZ_U04; K1_ZARZ_U07; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K07	30	75	3	3	1,2	T/Z	E		DN		K
41	W08ZZZ-SL0018C	Production and services management		1				K1_ZARZ_W12 K1_ZARZ_U04; K1_ZARZ_U07; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K07	15	50	2	2	0,6	T/Z	Z		DN	P	K
42	W08ZZZ-SL0018L	Production and services management			1			K1_ZARZ_W12 K1_ZARZ_U04; K1_ZARZ_U07; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01; K1_ZARZ_K07	15	50	2	2	0,6	T/Z	Z		DN	P	K

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

43	W08ZZZ-SL0024W	Project Management	2					K1_ZARZ_W20 K1_ZARZ_U07; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17	30	75	3	3	1,2	T/Z	E		DN		K
44	W08ZZZ-SL0024C	Project Management		1				K1_ZARZ_K02; K1_ZARZ_K03; K1_ZARZ_K04; K1_ZARZ_K07	15	25	1	1	0,6	T/Z	Z		DN	P	K
Total			37	19	9	7	4		1140	2175	87	87	45,6						

4.1.3.2 Basics of financial accounting block

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			le c	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University-wide ⁴	Concernin g scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0107W	Basics of financial accounting	2					K1_ZARZ_W10 K1_ZARZ_U07; K1_ZARZ_U14; K1_ZARZ_U17	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL0107C	Basics of financial accounting		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
3	W08ZZZ-SL0107L	Basics of financial accounting			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
4	W08ZZZ-SL0108W	Basics of financial accounting	2						30	50	2	2	1,2	T/Z	Z		DN		K
5	W08ZZZ-SL0108C	Basics of financial accounting		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
6	W08ZZZ-SL0108L	Basics of financial accounting			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
Total			2	1	1				60	100	4	4	2,4						

Altogether (for main field of study 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
39	20	10	7	4	1200	2275	91	91	48

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2 List of optional blocks

4.2.1 List of general education blocks

4.2.1.1 Liberal-managerial subjects blocks (min. 3 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL2ZZP02BKS	Social competences module (H)					2	K1_ZARZ_W16; K1_ZARZ_W18; K1_ZARZ_W27 K1_ZARZ_U09; K1_ZARZ_U14; K1_ZARZ_U15; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K02	30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0109S	Effective teamwork					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0110S	Interpersonal communication					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0111S	Negotiation and conflict resolving					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0112S	Social research tools					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0113S	Management of own potential					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0114S	Creativity training and creative thinking techniques					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0115S	Good manager					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
		Total	0	0	0	0	2		30	75	3	3	1,2						

4.2.1.2 Foreign languages block (min. 5 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	SJO-SI0001	Foreign Language A1/A2/B1/B2.1/C1.1		4				K1_ZARZ_U17 K1_ZARZ_K06	60	70	2	0	1,5	T	Z	O		P	KO
2	SJO-SI0002	Foreign Language B2.2/C1.2		4				K1_ZARZ_U17 K1_ZARZ_K06	60	80	3	0	2,5	T	Z	O		P	KO
		Total	0	8	0	0	0		120	150	5	0	4,0						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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 courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	SWF-S00000	Sport activities		2				K1_ZARZ_K07	30	30	0	0,0	0,0	T	Z	O		P	KO
2	SWF-S00000	Sport activities		2				K1_ZARZ_K07	30	30	0	0,0	0,0	T	Z	O		P	KO
Total			0	4	0	0	0		60	60	0	0,0	0,0						

4.2.1.4 Information technologies block (min. ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
0	12	0	0	2	210	285	8	3	5,2

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.2 List of basic sciences blocks

4.2.2.1 Mathematics block (min. ECTS points):

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

4.2.2.2 Physics block (min. ECTS points):

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

4.2.2.3 Chemistry block (min. ECTS points):

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether for basic sciences 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					

4.2.3 List of main-field-of-study blocks

4.2.3.1 Training and Diploma dissertation block (min. 22 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0026S	Diploma Seminar					1	K1_ZARZ_U03; K1_ZARZ_U14; K1_ZARZ_U13; K1_ZARZ_U14; K1_ZARZ_U17	15	25	1	1	0,6	T/Z	Z		DN	P	K
2	W08ZZZ-SL0146D	Bachelor thesis				2		K1_ZARZ_U13; K1_ZARZ_U14; K1_ZARZ_U17	30	400	16	16	8,0	T/Z	Z		DN	P	K
3	W08ZZZ-SL0021Q	Internship (4 or 5 semester)						K1_ZARZ_K01; K1_ZARZ_K02; K1_ZARZ_K0	0	150	5	0	0,0	T	Z			P	K
Total			0	0	0	2	1		45	575	22	17	8,6						

Altogether for main-field-of-study 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
0	0	0	2	1	45	575	22	17	8,6

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.4 List of specialization blocks

4.2.4.1 Specialization subjects (min. 30 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0104W	Fundamentals of Databases	1					K1_ZARZ_W24; K1_ZARZ_W25 K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17	15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0104L	Fundamentals of Databases			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0121W	Basics of MIS analysis and modeling	1					K1_ZARZ_W04; K1_ZARZ_W15 K1_ZARZ_U14; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0121L	Basics of MIS analysis and modeling			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
1	W08ZZZ-SL0116W W08ZZZ-SL0116S W08ZZZ-SL0117W W08ZZZ-SL0117C W08ZZZ-SL0118W W08ZZZ-SL0118S	Legal science block	1	2				K1_ZARZ_W03; K1_ZARZ_W04; K1_ZARZ_W27 K1_ZARZ_U05; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K07	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S
			1				2												
2	W08ZZZ-SL0126W W08ZZZ-SL0126L W08ZZZ-SL0127W W08ZZZ-SL0127C W08ZZZ-SL0128W W08ZZZ-SL0128C	Economic & Financial block	1	2				K1_ZARZ_W08; K1_ZARZ_W10 K1_ZARZ_U14; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S
			1		2														
3	W08ZZZ-SL0129W W08ZZZ-SL0129C W08ZZZ-SL0130W W08ZZZ-SL0130S W08ZZZ-SL0131W W08ZZZ-SL0131C	IT & Decision Making block	1	2				K1_ZARZ_W24 K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	45	75	3	3	1,8	T/Z	Z		DN	P(2)	S
			1				2												

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4	W08ZZZ-SL0138W W08ZZZ-SL0138C W08ZZZ-SL0139W W08ZZZ-SL0139C W08ZZZ-SL0140C W08ZZZ-SL0140P W08ZZZ-SL0141W W08ZZZ-SL0141P W08ZZZ-SL0142W W08ZZZ-SL0142P W08ZZZ-SL0143W W08ZZZ-SL0143P 08ZZZ-SL0144W W08ZZZ-SL0144S	Business and its Conditioning block	1	2				K1_ZARZ_W27 K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K06	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S
	1				2														
	1					2													
5	W08ZZZ-SL0147W W08ZZZ-SL0147P W08ZZZ-SL0148W W08ZZZ-SL0148C W08ZZZ-SL0149W W08ZZZ-SL0149P W08ZZZ-SL0150W W08ZZZ-SL0150P W08ZZZ-SL0151W W08ZZZ-SL0151P W08ZZZ-SL0152W W08ZZZ-SL0152S W08ZZZ-SL0153W W08ZZZ-SL0153L W08ZZZ-SL0154W W08ZZZ-SL0154P	Modern Organization Management block	1	2				K1_ZARZ_W21 K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S
	1			2															
	1				2														
	1					2													
6	W08ZZZ-SL0089P W08ZZZ-SL0092P W08ZZZ-SL0086P W08ZZZ-SL0088P W08ZZZ-SL0090P W08ZZZ-SL0087P W08ZZZ-SL0095P W08ZZZ-SL0155P W08ZZZ-SL0156P W08ZZZ-SL0157P W08ZZZ-SL0158P W08ZZZ-SL0159P W08ZZZ-SL0160P W08ZZZ-SL0161P W08ZZZ-SL0162P W08ZZZ-SL0163P W08ZZZ-SL0164P	Project Workshops block				2		K1_ZARZ_W21 K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	30	125	5	5	1,2	T/Z	Z		DN	P	S
		Total	7	16				345	750	30	30	13.8							

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.4.2. Legal science block (min. 4 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gro up of courses	Way ³ of crediti ng	Course/group of courses			
			lec	cl	lab	pr	sem									Universi ty-wide ⁴	Concernin g scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0116W	Labour Law	1					K1_ZARZ_W03; K1_ZARZ_W04; K1_ZARZ_W27 K1_ZARZ_U05; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17	15	50	2	2	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0116S	Labour Law					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0117W	Product liability	1						15	50	2	2	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0117C	Product liability		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0118W	Market Consumer Protection	1						15	50	2	2	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL0118S	Market Consumer Protection					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	2					45	100	4	4	1,8						

4.2.4.3 Economic & Financial block (min. 4 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0126W	Computer aided financial analysis	1					K1_ZARZ_W08; K1_ZARZ_W10 K1_ZARZ_U14; K1_ZARZ_U10; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K01	15	50	2	2	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0126L	Computer aided financial analysis			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0127W	Managerial finance	1						15	50	2	2	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0127C	Managerial finance		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0128W	Financing the development of a small enterprise	1						15	50	2	2	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL0128C	Financing the development of a small enterprise		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	2					45	100	4	4	1,8						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.4.4 IT & Decision Making block (min. 3 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			l e c	c l	l a b	p r	s e m		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0129W	Effective techniques of using internet in business	1					K1_ZARZ_W24 K1_ZARZ_U14; K1_ZARZ_U04; K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0129C	Effective techniques of using internet in business		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0130W	E-business	1						15	25	1	1	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0130S	E-business					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0131W	Marketing communication in the Internet	1						15	25	1	1	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL0131C	Marketing communication in the Internet		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	2					45	75	3	3	1,8						

4.2.4.5 Business and its Conditioning block (min. 4 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			l e c	c l	l a b	p r	s e m		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0138W	Labor Market and Promoting Employment	1					K1_ZARZ_W27 K1_ZARZ_U14; K1_ZARZ_U17 K1_ZARZ_K06	15	50	2	2	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0138C	Labor Market and Promoting Employment		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0139W	Information management in the enterprise	1						15	50	2	2	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0139C	Information management in the enterprise		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0140W	Business conditions and organization development	1						15	50	2	2	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL0140P	Business conditions and organization development				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
7	W08ZZZ-SL0141W	Small business designing	1						15	50	2	2	0,6	T/Z	Z		DN		S
8	W08ZZZ-SL0141P	Small business designing				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
9	W08ZZZ-SL0142W	Entrepreneurship – initiation, establishment and conducting economic activity	1						15	50	2	2	0,6	T/Z	Z		DN		S
10	W08ZZZ-SL0142P	Entrepreneurship – initiation, establishment and conducting economic activity				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
11	W08ZZZ-SL0143W	Ecological manager	1						15	50	2	2	0,6	T/Z	Z		DN		S
12	W08ZZZ-SL0143P	Ecological manager				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
13	W08ZZZ-SL0144W	Insurance in business management	1						15	50	2	2	0,6	T/Z	Z		DN		S
14	W08ZZZ-SL0144S	Insurance in business management					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	2					45	100	4	4	1,8						

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.4.6 Modern Organization Management block (min. 4 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			l e c	c l	l a b	p r	s e m		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0147W	Innovation design	1					K1_ZARZ_W21 K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	15	50	2	2	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL0147P	Innovation design				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0148W	Solving managerial problems	1						15	50	2	2	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL0148C	Solving managerial problems		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0149W	Change and Resistance Management	1						15	50	2	2	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL0149P	Change and Resistance Management				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
7	W08ZZZ-SL0150W	Project Management Methods and Technics	1						15	50	2	2	0,6	T/Z	Z		DN		S
8	W08ZZZ-SL0150P	Project Management Methods and Technics				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
9	W08ZZZ-SL0151W	Lean start-up	1						15	50	2	2	0,6	T/Z	Z		DN		S
10	W08ZZZ-SL0151P	Lean start-up				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
11	W08ZZZ-SL0152W	Team management	1						15	50	2	2	0,6	T/Z	Z		DN		S
12	W08ZZZ-SL0152S	Team management					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
13	W08ZZZ-SL0153W	Software Project Management	1						15	50	2	2	0,6	T/Z	Z		DN		S
14	W08ZZZ-SL0153L	Software Project Management			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
15	W08ZZZ-SL0154W	Smart city management	1						15	50	2	2	0,6	T/Z	Z		DN		S
16	W08ZZZ-SL0154P	Smart city management				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	2					45	100	4	4	1,8						

4.2.4.7 Project Workshops block (min. 5 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/grou p of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0089P	Capital groups - the essence, specifics and practice of functioning				2		K1_ZARZ_W21 K1_ZARZ_U14; K1_ZARZ_U16; K1_ZARZ_U17 K1_ZARZ_K05	30	125	5	5	1,2	T/Z	Z		DN	P	S
2	W08ZZZ-SL0092P	Cause and effect financial diagnosis of the company				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0086P	Analysis of marketing strategies in the Internet and digital media				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
4	W08ZZZ-SL0088P	Elements of managerial accounting				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
5	W08ZZZ-SL0090P	Monitoring the financial condition of a company				2			30	125	5	5	1,2	T/Z	Z		DN	P	S

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⁴University-wide course /group of courses – enter O

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6	W08ZZZ-SL0087P	Diagnosis companies for the implementation of innovations				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
7	W08ZZZ-SL0095P	Managing the process of innovation in the enterprise				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
8	W08ZZZ-SL0155P	Analysis and design of usable interactive systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
9	W08ZZZ-SL0156P	Analysis, evaluation and reengineering of logistic processes in an enterprise				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
10	W08ZZZ-SL0157P	Ergonomic diagnosis and design of work stations				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
11	W08ZZZ-SL0158P	Improvement of quality management systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
12	W08ZZZ-SL0159P	Improving the personnel function within the organization				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
13	W08ZZZ-SL0160P	Improvement of organizational information systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
14	W08ZZZ-SL0161P	Economic conditions of the development of enterprises in the EU market				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
15	W08ZZZ-SL0162P	Models of business enterprises				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
16	W08ZZZ-SL0163P	Crisis Management				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
17	W08ZZZ-SL0164P	Application psychology in management				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
Total						2			30	125	5	5	1,2						

Altogether for specialization 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
7	16				345	750	30	30	13,8

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4.3 Training block - concerning principles of training crediting

The principles of training crediting are an integral part of the Faculty Quality Assurance System - process No. 7 “Carrying out student training” instruction No. 07-00-00-01-00, the update of which was approved by Resolution 56/5/2021–2024 of the Faculty Council of 29/03/2022.

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

Name of training			
Number of ECTS points	Number of ECTS points for BU ¹ classes	Training crediting mode	Code
5	0	Internships can be organized as individual or in mode of recognition of the paid work performed by the student as part of the internship, if the field of study is compatible with the nature of the student's work (required period of employment - minimum three months). The basis for completing the student's internship 1. in an individual mode is: – certificate from the company or institution where the internship took place containing: the actual duration of the internship and an opinion on its course (Annex 3 to process No. 7 “Carrying out student training” instruction No. 07-00-00-00-00), – a written report documenting the results of the practice (Annex 4 to process No. 7 “Carrying out student training” instruction No. 07-00-00-00-00), 2. under the recognition procedure performed by the student gainful employment as part of the internship is: – certificate from the enterprise confirming the fact of employing the student, time of employment and description of the basic tasks performed by the student, – certificate of completion of an internship (internship) organized by AIESEC or another students organizations of a similar nature. Recognition of the traineeship organized by students organizations require documentation to be provided to the Vice-Dean for Students; documents in the following languages are required: Polish, English or German. The internship in the student's electronic record book is credited by the Dean (Vice-Dean for Students) or a person designated by him after getting acquainted with the opinion of the student's intership supervisor and / or documentation regarding the course of the internship.	W08ZZZ-SL0021Q

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Training duration	Training objective
4 weeks	The aim of student internships at the Faculty of Management is preparing students for future professional employment, as well as developing the skills and carrying out the tasks required in a chosen functional area of an organization - in accordance with the stated goals of work practice, in particular: – acquainting the student with the specificity of the professional environment and the rules of functioning business entities, – getting acquainted with the technique of keeping documentation for individual work positions and its proper conduct, – learning the principles of work organization: organizational structures, division of competences, procedures, work planning and control, – shaping the ability to work in teams of people, especially effective communication, preparation for independent work and decision making, – shaping specific professional skills directly related with the place of internship, – verification, development and practical application of acquired during the studies substantive skills, – improving the skills of organizing own work, team work and effective work time management, diligence, responsibility for entrusted tasks, – developing activity, entrepreneurship and team cooperation skills, – gaining experience, knowledge about the labor market and the required skills at work, as well as making a self-assessment of the student's skills to enhance the possibility of successfully competing in the labor market.

4.4 „Diploma dissertation” block *(if it is foreseen at first level studies)*

Type of diploma dissertation	Licencjat	
Number of diploma dissertation semesters	Number of ECTS points	Code
2	1 16	W08ZZZ-SL0026S - Seminar W08ZZZ-SL0146D – Bachelor thesis
Character of diploma dissertation		
Literature survey, project, computer program, etc.		
Number of BU ¹ ECTS points	8,6	
Number of DN ⁵ ECTS points	17	

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5. Ways of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	Examination or test - multiple choice questions with single or multiple answers; open questions
class	Test (multiple choice and/or open questions); written reports in the form of presentations - literature and case studies, diagnostic and/or project reports - empirical research in real organizations, presenting the opinions of representatives of such organizations; spoken presentations using modern presentation technology
laboratory	Technical report or test
project	Written report documenting the diagnosis and solution of a problem, spoken presentation of the project with questions.
seminar	Choice and formulation of a problem/theme; activeness in discussions, written report in an academic style, essay, “mini”-monograph. Spoken presentations using modern presentation technology
work placement	Written report on the work practice given by the student's placement supervisor, confirmation of the completion and nature of the work placement by the employer
diploma thesis	Written report satisfying the current regulations for diploma theses, assessed by the supervisor and a reviewer using an appropriate form.
diploma examination	Spoken presentation of the results of the diploma thesis, answers to questions given by the examination committee, spoken answers to randomly chosen questions from the set appearing in the program of studies.

6. Range of diploma examination

1. Origin and evolution of organizational sciences.
2. Economic sciences – scope and relation to social and technical sciences.
3. Types of economies, mechanism of resource allocation in different types of economic systems.
4. Indices for comparing economies and their usefulness in making decisions at the level of enterprises.
5. Instruments of fiscal policy and monetary policy.
6. Markets and their elements according to classical (orthodox economy) and liberal economics.
7. Market structures: perfect competition, monopolistic competition, oligopoly, monopoly.
8. Application of marginal account in economic decisions making.
9. Social costs of monopoly and the mechanisms of ceiling prices setting.
10. The essence, basic principles and subjects of commercial law.

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11. An idea, parts, elements and types of employment contracts.
12. The essence and importance of producer's guarantee.
13. Main forms of running a business. Enterprises creating and liquidating.
14. Intellectual property law – an idea of work and the beginning of its law protection, copyright infringement (plagiarism) and author's rights.
15. An organization's life-cycle – phases and its determinants.
16. Elements of an organization – people, technology, processes, structures.
17. Legal, organizational and ownership forms of enterprises.
18. Organizational resources, potential and assets.
19. Legal determinants of enterprise operations in the area of agreements with contracting parties.
20. Social, economic and political determinants of organizational behaviour – national and global dimensions.
21. An enterprise's cooperation with other entities: the essence and forms of cooperation, cooperatives and alliances.
22. The essence, aims and functions of management.
23. Management methods and techniques – classification criteria, examples of the application of selected methods or techniques.
24. Management as an information and decision-making process.
25. Factors influencing organizational structure.
26. Organizational structure – determinants and directions of evolution.
27. Identification and generic classification of business processes in organization.
28. The functional and process forms of the organization of an enterprise.
29. The notion and models of the process management.
30. Methods of organization processes mapping, measurement, evaluation and improvement.
31. Marketing strategy and others typical strategies of marketing sector management. Structure and role of marketing planning process in management.
32. The marketing-mix as a concept of influencing the market.
33. The scope and functions of marketing researches, procedures and methods of conducting.
34. Problem-based financial analysis – assessment of profitability, assets and equity structure.
35. Capital investment – material and cash investments. Methods of assessing the effectiveness of investments.
36. Capital and assets of a company - balance sheet, profit and loss account and cash flow statement.
37. Accounting and bookkeeping rules
38. The sources and rules of firms activities financing.
39. Periodic evaluation of employees and their professional development – goals, principles, procedures.
40. Job appraisal (essence, aims, methods) and wages (wage tables, wage forms).
41. Principles of creating teams; the role of teams in organizations and the factors influencing their efficiency.
42. Goals and strategies of production management in a market economy.

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43. Systems and processes of production and services – methods of production management.
44. Essence of logistics, its fundamentals and levels of integration of logistic processes.
45. Logistic processes management. Planning and organization of the logistic processes in an organization.
46. Concepts of quality management according to quality philosophers (Deming, Crosby).
47. Concept of Kaizen quality improvement.
48. Possibilities of quality management methods and techniques application in quality improvement (processes, products, services).
49. Quality cost accounting.
50. Methods of diagnosing and improving an enterprise's activities – examples of applications in various functional areas.
51. Main methods of evaluating and selecting solutions to problems faced by organizations.
52. Motivation as a main mechanism determining a human behavior – psychological theories of motivation.
53. The essence of work motivation – attitudes towards the work, engagement, attachment to the organisation.
54. Modern concepts of leadership in organisation – charismatic, transformational, transactional, servant leadership.
55. Organizational norms and values as determinants of ethical behavior of employees in organizations.
56. Interpersonal conflicts – within and between groups.
57. Organizational culture and the ethics of organizational behaviour.
58. Social influence in an organisation, conformity versus nonconformity, collaboration, competition, aggression.
59. The sources of resistance to change and ways of their neutralization.
60. The initiation of projects. Characteristic of the process.
61. Place and role of projects in management. The essence and types of projects.
62. Project realization and resources planning. Project budgeting. Project course monitoring.
63. The essence and types of entrepreneurship in an organization.
64. The essence and types of innovation, organisations supporting the innovation development.
65. The influence of the physical environment at work on employee's different burdens.
66. Mathematical methods applied in management – examples of applications.
67. Determining the contact portfolio and optimal portfolio for investors with certain risk aversion in Markowitz's model.
68. Multicriteria analysis in decision-making – examples of problems and methods of problem solving.
69. Descriptive statistics in data analysis. Examples of use depending on the type of variables.
70. The essence and phases of statistical hypothesis testing.
71. The rules of an information system choice.
72. Process of implementing and exploiting information systems in management.
73. Evolution of information systems in management.
74. Accounting account, economic event and types of economic operations.

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³Exam – 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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75. Taxes and other burdens of business activity.
76. Efficiency account in an enterprise, mechanism of financial leverage in an enterprise.
77. Financial analysis in static and dynamic approach.
78. Methods of profitability of tangible investments estimating.
79. The notion of CE marking and its importance in manufacturer-client relationships.
80. Modern methods and tools of human resources management – characteristic and application.
81. Types of problems faced by organizations.
82. Characteristic of creative problem- solving techniques.
83. Traditional methodologies and agile methodologies for project management – brief characteristic and main differences.
84. Project life cycle according to selected traditional methodology.
85. The methods of users' requirements gathering for the analysis and modelling of processes in an organisation.
86. Use of Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) systems in solving managerial problems.
87. Approaches to improving information processes in an organisation.
88. Main elements of BPMN notation and their usability in solving managerial problems using business analysis method.

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

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

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8. Plan of studies (attachment no. 3 to the Program of Studies)

Approved by faculty student government legislative body:

.....
Date

.....
name and surname, signature of student representative

.....
Date

.....
Dean's signature

*delete as appropriate

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³Exam – 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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⁶Practical 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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PLAN OF STUDIES

FACULTY:	Management
MAIN FIELD OF STUDY:	Management
EDUCATION LEVEL:	first-level (licencjat) studies
FORM OF STUDIES:	full-time studies
PROFILE:	general academic
SPECIALIZATION:	Zarządzanie Przedsiębiorstwem (ZP)
LANGUAGE OF STUDY:	Polish

In effect since 2023/2024

Plan of studies structure (optionally)

1) in point layout

24			Foreign language A1/A2/ B1/ B2.1/ C1.1	Internship 150h/5ECTS	Sport activities	
23		Social competences block		Foreign language B2.2/C1.2	0	
22	Information Technology	3	2	3	Organizational Methods and Techniques 2	
21	2	Sociology				
20	Work Environment Physics	3	Production and services management	Economic & Financial block	Methods and tools of making decisions 3	
19		Fundamentals of Databases	7	4	Business and its Conditioning block	
18	4	3	Basics of MIS analysis and modeling	IT & Decision Making block	4	
17	Psychology	Descriptive Statistics	3	3	Business Process Management 5	Sport activities
16	2	5	Mathematical Economics	Logistics		0
15	Managers law		4	2	Personnel Management 5	Project Workshops block
14	3	Basics of financial accounting block	Corporate finance	Quality Management 5		5
13	Mathematics 1 for Economists	4	5		Modern Organization Management block	
12		Legal science block		Project Management 4	4	
11	9	4	Organizational behavior	Financial planning and modeling 3	Financial Management 5	Management Information Systems 3
10		Organizational Science	4	Marketing Management 2	Marketing research 4	Management Training 2
9	Fundamentals of Management	3			Diploma Seminar 1	Bachelor thesis
8	5	Macroeconomics	Principles of Marketing 5			16
7		5				
6						
5						
4	Microeconomics					
3	5					
2						
1						
	I (3E)	II (2E)	III (2E)	IV (2E)	V (2E)	VI (0E)
	30 ECTS	30 ECTS	30 ECTS	31 ECTS	29 ECTS	30 ECTS

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

2) in hours

27		Social competences block 00002				
26			Foreign language A1/A2/ B1/ B2.1/ C1.1 04000	Internship 150h/5ECTS	Sport activities 02000	
25	Psychology 10002	Sociology 20002		Foreign language B2.2/C1.2 04000	Organizational Methods and Techniques 11000	
24					Methods and tools of making decisions 10100	
23	Information Technology 10100		Production and services management 21100 E	Economic & Financial block 12000/10200	Business and its Conditioning block 12000/10020/10002	
22	Work Environment Physics 10120	Fundamentals of Databases 10200		IT & Decision Making block 12000/10002	Business Process Management 21100 E	
21			Basics of MIS analysis and modeling 10200			Sport activities 02000
20			Mathematical Economics 21000	Logistics 10100		
19			Corporate finance 22000	Quality Management 20011 E	Personnel Management 20021	Project Workshops block 00020
18	Managers law 22000	Basics of financial accounting 21100				Modern Organization Management block 12000/10200/10020/100 02
17			Organizational behavior 22000	Project Management 21000 E	Managerial finance 21000 E	Management Information Systems 20101
16				Financial planning and modeling 10200	Marketing research 20020	Management Training 00200
15	Mathematics 1 for Economists 22000 E	Legal science block 12000/10002	Principles of Marketing 22000 E	Marketing Management 10020		Bachelor thesis 00020
14					Diploma Seminar 00001	
13	Fundamentals of Management 22000 E	Organizational Science 20001			V (2E)	VI (0E)
12						
11						
10						
9						
8						
7						
6						
5						
4	Microeconomics 22000 E	Macroeconomics 22000 E				
3						
2						
1						
	I (3E)	II (2E)	III (2E)	IV (2E)	V (2E)	VI (0E)
	25h/tydz	27h/tydz	26h/tydz	25h/tydz	26h/tydz	15h/tydz

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³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical 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. 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/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/g roup of courses	Way ³ of creditin g	Course/group of courses			
			lec	cl	lab	pr	se m		ZZU	CNPS	Tot al	DN ⁵ classes	BU ¹ classes			Unive rsity- wide ⁴	Concernin g scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0099W	Work Environment Physics	1					K1_ZARZ_W22	15	30	1	1	0,5	T/Z	Z		DN		PD
2	W08ZZZ-SL0099L	Work Environment Physics			1			K1_ZARZ_U12	15	30	1	1	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL0099P	Work Environment Physics				2		K1_ZARZ_K05	30	60	2	2	1,0	T/Z	Z		DN	P	PD
4	W13ZZZ-SL0001G	Mathematics 1 for Economists (GK)	2	2				K1_ZARZ_W23 K1_ZARZ_U13 K1_ZARZ_K01	60	270	9		7,0	T	E (w)	O		P (4)	PD
5	W08ZZZ-SL0100W	Microeconomics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_U02	30	75	3	3	1,2	T/Z	E		DN		K
6	W08ZZZ-SL0100C	Microeconomics		2				K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
7	W08ZZZ-SL0101W	Fundamentals of Management	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_W06 K1_ZARZ_W07 K1_ZARZ_W08 K1_ZARZ_W18	30	75	3	3	1,2	T/Z	E		DN		K
8	W08ZZZ-SL0101C	Fundamentals of Management		2				K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
9	W08ZZZ-SL0165G	Managers law (GK)	2	2				K1_ZARZ_W03 K1_ZARZ_W05 K1_ZARZ_U01 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06 K1_ZARZ_K07	60	75	3	3	2,4	T/Z	Z		DN	P (2)	K
10	W08ZZZ-SL0102G	Psychology (GK)	1				2	K1_ZARZ_W16 K1_ZARZ_U09 K1_ZARZ_K04 K1_ZARZ_K06	45	50	2	2	1,8	T/Z	Z		DN	P (1)	KO
11	W08ZZZ-SL0005G	Information Technology (GK)	1		1			K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_U11	30	60	2	2	1,0	T/Z	Z		DN	P (1)	K
Total			11	8	2	2	2		375	825	30	21	19						

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³Exam – 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)

⁴University-wide course /group of courses – enter O

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⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
		Total																	

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
11	8	2	2	2	375	825	30	21	19

Semester 2

Obligatory courses / groups of courses

Number of ECTS points 23

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0006W	Macroeconomics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
2	W08ZZZ-SL0006C	Macroeconomics		2					30	50	2	2	1,2	T/Z	Z		DN	P	K
3	W08ZZZ-SL0103W	Organizational Science	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05 K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN		K
4	W08ZZZ-SL0103S	Organizational Science					1		15	25	1	1	0,6	T/Z	Z		DN	P	K
5	W08ZZZ-SL0104W	Fundamentals of Databases	1					K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_U04	15	25	1	1	0,6	T/Z	Z		DN		S

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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-SL0104L	Fundamentals of Databases			2			K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17	30	50	2	2	1,2	T/Z	Z		DN	P	S
7	W08ZZZ-SL0105S	Sociology (GK)	2				2	K1_ZARZ_W16 K1_ZARZ_W17 K1_ZARZ_W19 K1_ZARZ_U09 K1_ZARZ_K03 K1_ZARZ_K04 K1_ZARZ_K07	60	75	3	3	2,4	T/Z	Z		DN	P	KO
8	W08ZZZ-SL0106W	Descriptive Statistics	2					K1_ZARZ_W24 K1_ZARZ_W25	30	90	3	3	1,0	T/Z	E		DN		PD
9	W08ZZZ-SL0106L	Descriptive Statistics			2			K1_ZARZ_U04 K1_ZARZ_U11	30	60	2	2	1,0	T/Z	Z		DN	P	PD
10	ZZZ-SL2ZZP01BRF	Basics of financial accounting block	2	1	1			K1_ZARZ_W10 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U17	60	100	4	4	2,4	T/Z	Z		DN		K
	W08ZZZ-SL0107W	Basics of financial accounting	2						30	50	2	2	1,2	T/Z	Z		DN		K
	W08ZZZ-SL0107C	Basics of financial accounting		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
	W08ZZZ-SL0107L	Basics of financial accounting			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
	W08ZZZ-SL0108W	Basics of financial accounting	2						30	50	2	2	1,2	T/Z	Z		DN		K
	W08ZZZ-SL0108C	Basics of financial accounting		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
	W08ZZZ-SL0108L	Basics of financial accounting			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
	Total		11	3	5	0	3		330	600	23	23	12.8						

Optional courses / groups of courses (minimum 75 hours in semester, 7 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			le c	cl	lab	pr	se m		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ-SL2ZZP02BKS	SOCIAL COMPETENCES BLOCK					2	K1_ZARZ_W16 K1_ZARZ_W18 K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02	30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0109S	Effective teamwork					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0110S	Interpersonal communication					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0111S	Negotiation and conflict resolving					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0112S	Social research tools					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0113S	Management of own potential					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0114S	Creativity training and creative thinking techniques					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL0115S	Good manager					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO

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³Exam – 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)

⁴University-wide course /group of courses – enter O

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⁶Practical 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	ZZZ-SL2ZZP03BNP	LEGAL SCIENCE BLOCK	1	2	K1_ZARZ_W03 K1_ZARZ_W04 K1_ZARZ_W27 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K07					45	100	4	4	1,8	T/Z	Z		DN		S
	W08ZZZ-SL0116W	Labour Law	1							15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0116S	Labour Law					2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0117W	Product liability	1							15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0117C	Product liability		2						30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0118W	Market Consumer Protection	1							15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0118S	Market Consumer Protection					2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	Total		1	6						75	175	7	7	3,0				DN		

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
12	17				405	775	30	30	15,8

Semester 3

Obligatory courses / groups of courses

Number of ECTS points 28

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	se m		ZZU	CNPS	Tot al	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0119W	Mathematical Economics	2					K1_ZARZ_W02 K1_ZARZ_W23 K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_K07	30	60	2	2	1,0	T/Z	Z		DN		PD
2	W08ZZZ-SL0119C	Mathematical Economics		1					15	60	2	2	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL0016W	Principles of Marketing	2					K1_ZARZ_W09 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
4	W08ZZZ-SL0016C	Principles of Marketing		2					30	50	2	2	1,2	T/Z	Z		DN	P	K

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³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical 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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5	W08ZZZ-SL0120W	Corporate finance	2					K1_ZARZ_W04 K1_ZARZ_W10 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	Z		DN		K
6	W08ZZZ-SL0120C	Corporate finance		2				K1_ZARZ_W04 K1_ZARZ_W15 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
7	W08ZZZ-SL0121W	Basics of MIS analysis and modeling	1					K1_ZARZ_W04 K1_ZARZ_W15 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN		S
8	W08ZZZ-SL0121L	Basics of MIS analysis and modeling			2			K1_ZARZ_W04 K1_ZARZ_W15 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	S
9	W08ZZZ-SL0018W	Production and services management	2					K1_ZARZ_W12 K1_ZARZ_U04 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K07	30	75	3	3	1,2	T/Z	E		DN		K
10	W08ZZZ-SL0018C	Production and services management		1				K1_ZARZ_W12 K1_ZARZ_U04 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K07	15	50	2	2	0,6	T/Z	Z		DN	P	K
11	W08ZZZ-SL0018L	Production and services management			1			K1_ZARZ_W12 K1_ZARZ_U04 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K07	15	50	2	2	0,6	T/Z	Z		DN	P	K
12	W08ZZZ-SL0122W	Organizational behavior	2					K1_ZARZ_W04 K1_ZARZ_W08 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U02 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
13	W08ZZZ-SL0122C	Organizational behavior		2				K1_ZARZ_W04 K1_ZARZ_W08 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U02 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
Total			11	8	3	0	0		330	720	28	28	12,9						

Optional courses / groups of courses (minimum 60hours in semester, 2 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Tot al	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	SJO-SI0001	Foreign language A1/A2/ B1/ B2.1/ C1.1		4				K1_ZARZ_U17 K1_ZARZ_K06	60	70	2	0	1,5	T		4		P	KO
Total			0	4	0	0	0		60	70	2	0	1,5						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
11	12	3	0	0	390	790	30	28	14,4

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical 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 4

Obligatory courses / groups of courses

Number of ECTS points 16

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	se m		ZZU	CNPS	Tot al	DN ⁵ classe s	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0123W	Logistics	1					K1_ZARZ_W08 K1_ZARZ_W13 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K02	15	25	1	1	0,6	T/Z	Z		DN		K
2	W08ZZZ-SL0123L	Logistics			1			K1_ZARZ_W08 K1_ZARZ_W10 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K
3	W08ZZZ-SL0124W	Financial planning and modeling	1					K1_ZARZ_W08 K1_ZARZ_W10 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN		K
4	W08ZZZ-SL0124L	Financial planning and modeling			2			K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	K
5	W08ZZZ-SL0022W	Quality Management	2					K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	75	3	3	1,2	T/Z	E		DN		K
6	W08ZZZ-SL0022P	Quality Management				1		K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
7	W08ZZZ-SL0022S	Quality Management					1	K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
8	W08ZZZ-SL0125G	Marketing Management (GK)	1			2		K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U08 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K03	45	50	2	2	1,8	T/Z	Z		DN	P (1)	K
9	W08ZZZ-SL0024W	Project Management	2					K1_ZARZ_W20 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04 K1_ZARZ_K07	30	75	3	3	1,2	T/Z	E		DN		K
10	W08ZZZ-SL0024C	Project Management		1				K1_ZARZ_W20 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04 K1_ZARZ_K07	15	25	1	1	0,6	T/Z	Z		DN	P	K
Total			7	1	3	2	1		225	400	16	16	9						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum 150 hours in semester, 31 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	se m		ZZU	CNPS	Tot al	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ-SL4ZZP01BEF	ECONOMIC & FINANCIAL BLOCK	1	2				K1_ZARZ_W08 K1_ZARZ_W10 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	45	100	4	4	1,8	T/Z	Z		DN	P	S
	W08ZZZ-SL0126W	Computer aided financial analysis	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0126L	Computer aided financial analysis			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0127W	Managerial finance	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0127C	Managerial finance		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0128W	Financing the development of a small enterprise	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0128C	Financing the development of a small enterprise		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
2	ZZZ-SL4ZZP02BID	IT & DECISION MAKING BLOCK	1	2				K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K05	45	75	3	3	1,8	T/Z	Z		DN	P	S
	W08ZZZ-SL0129W	Effective techniques of using internet in business	1						15	25	1	1	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0129C	Effective techniques of using internet in business							30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0130W	E-business	1						15	25	1	1	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0130S	E-business					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0131W	Marketing communication in the Internet	1						15	25	1	1	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0131C	Marketing communication in the Internet		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL0021Q	Internship (4 or 5 semester)						K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03	0	150	5	0	0,0	T	Z			P	K
4	SJO-SI0002	Foreign language B2.2/C1.2		4				K1_ZARZ_U17 K1_ZARZ_K06	60	80	3	0	2,5	T	Z	O		P	KO
Total			2	8					150	405	15	7	6,1						

Altogether in semester

Total number of hours					Total number of ZZUhours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for DN classes ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
9	16				375	805	31	23	15,1

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³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Semester 5

Obligatory courses / groups of courses

Number of ECTS points 24

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of credi ting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classe s	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0132W	Marketing research	2					K1_ZARZ_W09 K1_ZARZ_W15 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL0132P	Marketing research				2			30	50	2	2	1,2	T/Z	Z		DN	P	K
3	W08ZZZ-SL0133W	Methods and tools of making decisions	1					K1_ZARZ_W24 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN		K
4	W08ZZZ-SL0133L	Methods and tools of making decisions			1				15	50	2	2	0,6	T/Z	Z		DN	P	K
5	W08ZZZ-SL0134W	Organizational Methods and Techniques	1					K1_ZARZ_W07 K1_ZARZ_W18 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03	15	25	1	1	0,6	T/Z	Z		DN		K
6	W08ZZZ-SL0134C	Organizational Methods and Techniques		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
7	W08ZZZ-SL0135W	Managerial finance	2					K1_ZARZ_W10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K03 K1_ZARZ_K07	30	75	3	3	1,2	T/Z	E		DN		K
8	W08ZZZ-SL0135C	Managerial finance		1					15	50	2	2	0,6	T/Z	Z		DN	P	K
9	W08ZZZ-SL0136W	Personnel Management	2					K1_ZARZ_W11 K1_ZARZ_W18 K1_ZARZ_U05 K1_ZARZ_U07 K1_ZARZ_U09 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K04 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN		K
10	W08ZZZ-SL0136P	Personnel Management				2			30	50	2	2	1,2	T/Z	Z		DN	P	K
11	W08ZZZ-SL0136S	Personnel Management					1		15	25	1	1	0,6	T/Z	Z		DN	P	K
12	W08ZZZ-SL0137W	Business Process Management	2					K1_ZARZ_W08 K1_ZARZ_W15 K1_ZARZ_U06 K1_ZARZ_U08 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K05	30	75	3	3	1,2	T/Z	E		DN		K
13	W08ZZZ-SL0137C	Business Process Management		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
14	W08ZZZ-SL0137L	Business Process Management			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
Total			10	3	2	3	1		300	600	24	24	12						

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⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum 90 hours in semester, 5 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	se m		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerni ng scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0026S	Diploma Seminar					1	K1_ZARZ_U03 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17	15	25	1	1	0,6	T/Z	Z		DN	P	K
2	SWF-S00000	Sport activities		2				K1_ZARZ_K07	30	30	0	0	0	T	Z	O		P	KO
3.	ZZZ-SL5ZZP01BiU	BUSINESS AND ITS CONDITIONING BLOCK	1	2				K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	45	100	4	4	1,8	T/Z	Z		DN	P	S
	W08ZZZ-SL0138W	Labor Market and Promoting Employment	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0138C	Labor Market and Promoting Employment		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0139W	Information management in the enterprise	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0139C	Information management in the enterprise		2					30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0140C	Business conditions and organization development	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0140P	Business conditions and organization development				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0141W	Small business designing	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0141P	Small business designing				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0142W	Entrepreneurship – initiation, establishment and conducting economic activity	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0142P	Entrepreneurship – initiation, establishment and conducting economic activity				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0143W	Ecological manager	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0143P	Ecological manager				2			30	50	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0144W	Insurance in business management	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0144S	Insurance in business management					2		30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			1	5					90	155	5	5	2,4						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
11	15				390	755	29	29	14,4

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⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical 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 6

Obligatory courses / groups of courses

Number of ECTS points 5

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course /group of course s	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL0145G	Management Information Systems (GK)	2		1		1	K1_ZARZ_W24 K1_ZARZ_W26 K1_ZARZ_U06 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	60	75	3	3	2,4	T/Z	Z		DN	P (2)	K
2	W08ZZZ-SL0033L	Management Training			2			K1_ZARZ_W15 K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17	30	50	2	2	1,2	T/Z	Z		DN	P	K
Total			2	0	3	0	1		90	125	5	5	3,6						

Optional courses / groups of courses (minimum 135 hours in semester, 25 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/ group of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ-SL6ZZP01WP	PROJECT WORKSHOPS BLOCK				2		K1_ZARZ_W21 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K05	30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0089P	Capital groups - the essence, specifics and practice of functioning				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0092P	Cause and effect financial diagnosis of the company				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0086P	Analysis of marketing strategies in the Internet and digital media				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0088P	Elements of managerial accounting				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0090P	Monitoring the financial condition of a company				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0087P	Diagnosis companies for the implementation of innovations				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0095P	Managing the process of innovation in the enterprise				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0155P	Analysis and design of usable interactive systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0156P	Analysis, evaluation and reengineering of logistic processes in an enterprise				2			30	125	5	5	1,2	T/Z	Z		DN	P	S

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³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	W08ZZZ-SL0157P	Ergonomic diagnosis and design of work stations				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0158P	Improvement of quality management systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0159P	Improving the personnel function within the organization				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0160P	Improvement of organizational information systems				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0161P	Economic conditions of the development of enterprises in the EU market				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0162P	Models of business enterprises				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0163P	Crisis Management				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0164P	Application psychology in management				2			30	125	5	5	1,2	T/Z	Z		DN	P	S
2	ZZZ-SL6ZZP02NZO	MODERN ORGANIZATION MANAGEMENT BLOCK	1	2				K1_ZARZ_W21 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K05	45	100	4	4	1,8	T/Z	Z		DN	P	S
	W08ZZZ-SL0147W	Innovation design	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0147P	Innovation design				2			30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0148W	Solving managerial problems	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0148C	Solving managerial problems		2					30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0149W	Change and Resistance Management	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0149P	Change and Resistance Management				2			30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0150W	Project Management Methods and Technics	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0150P	Project Management Methods and Technics				2			30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0151W	Lean start-up	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0151P	Lean start-up				2			30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0152W	Team management	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0152S	Team management					2		30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0153W	Software Project Management	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0153L	Software Project Management			2				30	60	2	2	1,2	T/Z	Z		DN	P	S
	W08ZZZ-SL0154W	Smart city management	1						15	50	2	2	0,6	T/Z	Z		DN		S
	W08ZZZ-SL0154P	Smart city management				2			30	60	2	2	1,2	T/Z	Z		DN	P	S
3	SWF-S00000	Sport activities		2				K1_ZARZ_K07	30	30	0	0	0	T	Z	O		P	KO
4	W08ZZZ-SL0146D	Bachelor thesis				2		K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17	30	400	16	16	8,0	T/Z	Z		DN	P	K
Total			1	8					135	655	25	25	11						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
3			11		225	780	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
W13ZZZ-SL0001G	Mathematics 1 for Economists (GK)	1
W08ZZZ-SL0100W	Microeconomics	1
W08ZZZ-SL0101W	Fundamentals of Management	1
W08ZZZ-SL0006W	Macroeconomics	2
W08ZZZ-SL0106W	Descriptive Statistics	2
W08ZZZ-SL0016W	Principles of Marketing	3
W08ZZZ-SL0018W	Production and services management	3
W08ZZZ-SL0022W	Quality Management	4
W08ZZZ-SL0024W	Project Management	4
W08ZZZ-SL0135W	Managerial finance	5
W08ZZZ-SL0137W	Business Process Management	5

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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	13
2	17
3	12
4	11
5	6
6	0

Opinion of student government legislative body

.....
Date

.....
Name and surname, signature of student representative

.....
Date

.....
Dean's signature

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

SPECJALNOŚĆ/SPECIALTY:

**Organizational
management**

DESCRIPTION OF THE PROGRAM OF STUDIES

Main field of study: Management

Profile: general academic

Level of studies: first-level studies

Form of studies: full-time studies

1. General description

1.1 Number of semesters: 6	1.2 Total number of ECTS points necessary to complete studies at a given level: 180
1.3 Total number of hours: 2160	1.4 Prerequisites (particularly for second-level studies): 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: bachelor	1.6 Graduate profile, employability: A graduate will be able to set up and organize an enterprise in any given organizational-legal form and formulate alternative solutions to typical problems regarding management and effectiveness within an organization and its individual functional groups. He/she will have the ability to identify, interpret and assess the behaviour of employees and apply standard techniques of directing such behaviour. He/she will cooperate and work effectively in organizational forms made up of groups and/or teams. He/she will be able to select and create simple software to solve common problems in management. These abilities qualify such a graduate for management positions in the following fields: production planning and organization, marketing, logistics, accounts, human resources, organization and management,

	as well as the implementation of computerized systems in management. A graduate could also manage a small team of workers and, in particular, run their own enterprise.
1.7 Possibility of continuing studies: Eligibility to apply for admission to second-cycle study programmes, nondegree 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; • 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.

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

	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 bachelor 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 master 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) = 27, U (skills) = 17, K (competences) = 7, W + U + K = 51**
- 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

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

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) 161 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 learning outcomes of our undergraduate studies satisfy the following needs of employers on the job market:

- The need for employees to have interdisciplinary skills (small and medium-sized enterprises);
- The ability to work independently, but also cooperate with other employees to diagnose problems, as well as propose and implement solutions in specific functional groups within a firm (medium-sized and large enterprises);
- Openness to applying novel management methods and techniques, as well as tools from information technology;
- Flexibility and openness to innovations: entering new professions – according to the website pracuj.pl - e.g. analysts of investment processes, e-business specialists (e-marketers and e-architects), project management.

„Traditional” specialists in the field of marketing, finance, human resources, production management, logistics and IT are still in high demand on the employment market. However, they must be highly skilled, both technically and socially, in order to satisfy the demands of employers described above. Our program of undergraduate studies in Management, together with the experience of the teaching staff, create the conditions for students to develop these skills through their studies.

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) 92,8 ECTS. The maximum number of ECTS carried out remotely with the consent of the Dean of the Faculty is 75%.

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

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³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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	25
Number of ECTS points for optional subjects	0
Total number of ECTS points	25

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	38
Number of ECTS points for optional subjects	56
Total number of ECTS points	94

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)

14 ECTS points

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

54 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.

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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. 6 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8094W	Psychology	2					K1_ZARZ_W16 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		KO
2	W08ZZZ-SL8010W	Sociology	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_W11 K1_ZARZ_W17 K1_ZARZ_W19 K1_ZARZ_K01 K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN		KO
3	W08ZZZ-SL8095W	Social philosophy	2					K1_ZARZ_W17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		KO
Total			6	0	0	0	0		90	150	6	6	3,6						

4.1.1.2 Foreign languages block (min. ECTS points):

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.1.1.3 Sporting classes block (0 ECTS points):

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

4.1.1.4 Information technologies block (min. 4 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8003G	Information technology (GK)	2		1			K1_ZARZ_W25 K1_ZARZ_U11	45	120	4	4	1,5	T/Z	Z		DN	P(2)	K
		Total	2	0	1	0	0		45	120	4	4	1,5						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
8	0	1	0	0	135	270	10	10	5,1

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

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 courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8006W	Descriptive statistics	2					K1_ZARZ_W23 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	30	120	4	4	1	T/Z	E		DN		PD
2	W08ZZZ-SL8006C	Descriptive statistics		1				K1_ZARZ_W23 K1_ZARZ_U04 K1_ZARZ_K06	15	60	2	2	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL8015W	Mathematical Economics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W23 K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	30	120	4	4	1	T/Z	E		DN		PD
4	W08ZZZ-SL8015C	Mathematical Economics		1				K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W23 K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	15	60	2	2	0,5	T/Z	Z		DN	P	PD
5	W13ZZZ-SL8001G	Mathematics (GK)	2	2				K1_ZARZ_W23 K1_ZARZ_U13 K1_ZARZ_K07	60	270	9		7,0	T	E (lec.)	O		P (4)	PD
Total			6	4	0	0	0		150	630	21	12	10						

4.1.2.2 Physics block

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8012W	Work environment physics	2					K1_ZARZ_W03 K1_ZARZ_W04 K1_ZARZ_W22 K1_ZARZ_U05 K1_ZARZ_U12 K1_ZARZ_K02 K1_ZARZ_K04	30	60	2	2	1	T/Z	Z		DN		PD
2	W08ZZZ-SL8012C	Work environment physics		1				K1_ZARZ_W03 K1_ZARZ_W04 K1_ZARZ_W22 K1_ZARZ_U05 K1_ZARZ_U12 K1_ZARZ_K02 K1_ZARZ_K04	15	30	1	1	0,6	T/Z	Z		DN	P	PD
3	W08ZZZ-SL8012L	Work environment physics			1			K1_ZARZ_W03 K1_ZARZ_W04 K1_ZARZ_W22 K1_ZARZ_U05 K1_ZARZ_U12 K1_ZARZ_K02 K1_ZARZ_K04	15	30	1	1	0,6	T/Z	Z		DN	P	PD
Total			2	1	1	0	0		60	120	4	4	2,2						

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical 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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4.1.2.3 Chemistry block

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

Altogether for basic sciences 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
8	5	1	0	0	210	750	25	16	12,2

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 courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8060W	Civil and commercial law	2					K1_ZARZ_W03 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL8060C	Civil and commercial law		1					15	25	1	1	0,6	T/Z	Z		DN	P	K

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ-SL8018W	Corporate finance	2					K1_ZARZ_W10 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02	30	75	3	3	1,2	T/Z	E		DN		K
4	W08ZZZ-SL8018C	Corporate finance		1				K1_ZARZ_W10 K1_ZARZ_K01 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
5	W08ZZZ-SL8061W	Essentials of finance	2					K1_ZARZ_W10 K1_ZARZ_K01 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		K
6	W08ZZZ-SL8002W	Essentials of management	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_W06 K1_ZARZ_W07 K1_ZARZ_W08 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_K01	30	75	3	3	1,2	T/Z	E		DN		K
7	W08ZZZ-SL8002C	Essentials of management		2				K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
8	W08ZZZ-SL8090W	Financial analysis supported by computer	1					K1_ZARZ_W10 K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
9	W08ZZZ-SL8090L	Financial analysis supported by computer			1			K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K
10	W08ZZZ-SL8083W	Financial management	2					K1_ZARZ_W08 K1_ZARZ_W10 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
11	W08ZZZ-SL8083C	Financial management		1				K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K
12	W08ZZZ-SL8074W	Logistics	1					K1_ZARZ_W08 K1_ZARZ_W13 K1_ZARZ_U02 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		K
13	W08ZZZ-SL8074C	Logistics		1				K1_ZARZ_U17 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
14	W08ZZZ-SL8008W	Macroeconomics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W23 K1_ZARZ_W25 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	30	100	4	4	1,2	T/Z	E		DN		K
15	W08ZZZ-SL8008C	Macroeconomics		1				K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
16	W08ZZZ-SL8091W	Information Systems in Management	2					K1_ZARZ_W24 K1_ZARZ_W26 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN		K
17	W08ZZZ-SL8091L	Information Systems in Management			1			K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	15	25	1	1	0,6	T/Z	Z		DN	P	K
18	W08ZZZ-SL8039L	Management training			2			K1_ZARZ_W08 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U10 K1_ZARZ_U11 K1_ZARZ_U14	30	50	2	2	1,2	T/Z	Z		DN	P	K

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K1_ZARZ_U17 K1_ZARZ_K05 K1_ZARZ_K06											
19	W08ZZZ-SL8075W	Marketing management	1					K1_ZARZ_W05 K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U07	30	50	2	2	1,2	T/Z	Z		DN		K
20	W08ZZZ-SL8075P	Marketing management				2		K1_ZARZ_U08 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
21	W08ZZZ-SL8084W	Marketing research	2					K1_ZARZ_W09 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U13 K1_ZARZ_U14	30	50	2	2	1,2	T/Z	Z		DN		K
22	W08ZZZ-SL8084C	Marketing research		2				K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
23	W08ZZZ-SL8004W	Microeconomics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_U02 K1_ZARZ_U03	30	75	3	3	1,2	T/Z	E		DN		K
24	W08ZZZ-SL8004C	Microeconomics		2				K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
25	W08ZZZ-SL8022W	Operations management	1					K1_ZARZ_W08 K1_ZARZ_W12 K1_ZARZ_U03 K1_ZARZ_U06	15	25	1	1	0,6	T/Z	E		DN		K
27	W08ZZZ-SL8022C	Operations management		1				K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14	15	25	1	1	0,6	T/Z	Z		DN	P	K
28	W08ZZZ-SL8022L	Operations management			1			K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K07	15	25	1	1	0,6	T/Z	Z		DN	P	K
29	W08ZZZ-SL8068W	Organizational behaviours	2					K1_ZARZ_W17 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U08 K1_ZARZ_U09 K1_ZARZ_U14	30	50	2	2	1,2	T/Z	Z		DN		K
30	W08ZZZ-SL8068C	Organizational behaviours		1				K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K04 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
31	W08ZZZ-SL8062W	Organizational science	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_W07 K1_ZARZ_W10 K1_ZARZ_W11 K1_ZARZ_U01	30	50	2	2	1,2	T/Z	Z		DN		K
32	W08ZZZ-SL8062C	Organizational science		1				K1_ZARZ_U02 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04	15	25	1	1	0,6	T/Z	Z		DN	P	K

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

							K1_ZARZ_K06 K1_ZARZ_K07											
33	W08ZZZ-SL8089W	Business Process Management	1					15	25	1	1	0,6	T/Z	Z		DN		K
34	W08ZZZ-SL8089L	Business Process Management			1		K1_ZARZ_W08 K1_ZARZ_W15	15	25	1	1	0,6	T/Z	Z		DN	P	K
35	W08ZZZ-SL8030W	Total quality management	2				K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14	30	75	3	3	1,2	T/Z	E		DN		K
36	W08ZZZ-SL8030C	Total quality management		2			K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	K
37	W08ZZZ-SL8098S	Self-presentation				2	K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	ZDN		DN	P	K
Total			29	16	6	2	2	870	1600	64	64	34,8						

Altogether (for main field of study 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
29	16	6	2	2	870	1600	64	64	34,8

4.2 List of optional blocks

4.2.1 List of general education blocks

4.2.1.1 Liberal-managerial subjects blocks (min. 3 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL2ZOM02SC	Social competences module (H)					2	K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04 K1_ZARZ_K05 K1_ZARZ_K06	30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL8066S	Communication in management					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
	W08ZZZ-SL8065S	Management of own potential					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
Total							2		30	75	3	3	1,2						

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

4.2.1.2 Foreign languages block (min. 5 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	SJO-SI0003	Foreign language A1/A2/ B1/ B2.1/ C1.1		4				K1_ZARZ_U17	60	70	2		1,5	T	Z	O	DN	P	KO
2	SJO-SI0004	Foreign language B2.2/C1.2		4				K1_ZARZ_U17	60	80	3		2,5	T	Z	O	DN	P	KO
Total			0	8	0	0	0		120	150	5	0	4,0						

4.2.1.3 Sporting classes block (0 ECTS points):

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	SWF-S00000	Sport activities		2				K1_ZARZ_K06	30	30	0	0,0	0,0	T	Z	O		P	KO
2	SWF-S00000	Sport activities		2				K1_ZARZ_K06	30	30	0	0,0	0,0	T	Z	O		P	KO
Total			0	4	0	0	0		60	60	0	0,0	0,0						

4.2.1.4 Information technologies block (min. ECTS points):

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
0	12	0	0	2	210	285	8	3	5,2

4.2.2 List of basic sciences blocks

4.2.2.1 Mathematics block (min. ECTS points):

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

4.2.2.2 Physics block (min. ECTS points):

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

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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 courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
		Total																	

Altogether for basic sciences 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					

4.2.3 List of main-field-of-study blocks

4.2.3.1 Training and Diploma dissertation block (min. 22 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8023S	Diploma seminar					1	K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K
2	W08ZZZ-SL8093D	Bachelor thesis				2		K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U05 K1_ZARZ_U06 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	30	400	16	16	8,0	T/Z	Z		DN	P	K
3	W08ZZZ-SL8082Q	Internship (4th lub 5th semester)						K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03	0	150	5		0,0	T	Z			P	K
		Total	0	0	0	2	1		45	575	22	17	8,6						

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²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Altogether for main-field-of-study 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
0	0	0	2	1	45	575	22	17	8,6

4.2.4 List of specialization blocks

4.2.4.1 Specialization subjects (min. 28 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8073W	Contemporary organizational methods and techniques	1					K1_ZARZ_W06 K1_ZARZ_W16 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04	15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL8073C	Contemporary organizational methods and techniques		1				K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K04	15	25	1	1	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8067W	Financial accounting in the organizational decision making process	2					K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K04 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		S
4	W08ZZZ-SL8067C	Financial accounting in the organizational decision making process		1				K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K04 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	S
5	W08ZZZ-SL8092W	Introduction to risk management	1					K1_ZARZ_W20 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL8092C	Introduction to risk management		1				K1_ZARZ_W20 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K05 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	S
7	W08ZZZ-SL8025W	Leading project in modern organizations	2						30	75	3	3	1,2	T/Z	E		DN		S
8	W08ZZZ-SL8025C	Leading project in modern organizations		1					15	25	1	1	0,6	T/Z	Z		DN	P	S

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²Traditional – enter T, remote – enter Z

³Exam – 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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⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

9	W08ZZZ-SL8014W	Marketing in the information society	2					K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K06	30	100	4	4	1,2	T/Z	E		DN		S
10	W08ZZZ-SL8014C	Marketing in the information society		2				K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	S
11	W08ZZZ-SL8085W	Methods and Tools of Data Analysis	1					K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		S
12	W08ZZZ-SL8085L	Methods and Tools of Data Analysis			1			K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	S
13	W08ZZZ-SL8086W	Modern human resource management	2					K1_ZARZ_W08 K1_ZARZ_W11 K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04	30	50	2	2	1,2	T/Z	Z		DN		S
14	W08ZZZ-SL8086C	Modern human resource management		2				K1_ZARZ_W08 K1_ZARZ_W11 K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04	30	60	2	2	1,2	T/Z	Z		DN	P	S
15	W08ZZZ-SL8096S	Knowledge management in the organization					2	K1_ZARZ_U02 K1_ZARZ_U06 K1_ZARZ_U08 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DK	P(2)	S
16	W08ZZZ-SL8097S	The microstructure of the global financial market					2	K1_ZARZ_U04 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			11	8	1	0	4		375	710	28	28	15						

4.2.4.2 Specialization liberal blocks (diploma profile) (min. 24 ECTS points):

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL2ZOM01CS1	Computer science module	8					K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W26 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K06 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03	225	400	16	16	9,6	T/Z	Z		DN	P(8)	S
2	ZZZ- SL3ZOM02ES	Economic science module	2	1				K1_ZARZ_W02 K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S

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⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

								K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01											
3	ZZZ-SL4ZOM02LS	Legal science module	2	2				K1_ZARZ_W02 K1_ZARZ_W03 K1_ZARZ_W21 K1_ZARZ_W27 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04 K1_ZARZ_K06 K1_ZARZ_K07	60	100	4	4	2,4	T/Z	Z		DN	P(2)	S
Total			12	10					330	600	24	24	13,8						

Blocks

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practi cal ⁶	Type ⁷
	ZZZ-SL2ZOM01CS1	Computer science module (2 semester)	2		2			K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U17 K1_ZARZ_K06	60	100	4	4	2,4				DN		S
1	W08ZZZ-SL8063W	Data processing technology	2						30	50	2	2	0,7	T/Z	Z		DN		S
2	W08ZZZ-SL8063L	Data processing technology			2				30	50	2	2	1,4	T/Z	Z		DN	P	S
3	W08ZZZ-SL8064W	Introduction to SQL	2						30	50	2	2	0,7	T/Z	Z		DN		S
4	W08ZZZ-SL8064L	Introduction to SQL			2				30	50	2	2	1,4	T/Z	Z		DN	P	S
	ZZZ-SL3ZOM01CS2	Computer science module (3 semester)	2		2			K1_ZARZ_W24 K1_ZARZ_W26 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02	60	100	4	4	2,4				DN		S
1	W08ZZZ-SL8069W	Programming basics - Python	2						30	50	2	2	1,2	T/Z	Z		DN		S
2	W08ZZZ-SL8069L	Programming basics - Python			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
3	W08ZZZ-SL8070W	Programming basics - VBA	2						30	50	2	2	1,2	T/Z	Z		DN		S
4	W08ZZZ-SL8070L	Programming basics - VBA			2				30	50	2	2	1,2	T/Z	Z		DN	P	S

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	ZZZ-SL4ZOM01CS3	Computer science module (4 semester)	2	2				K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	60	100	4	4	2,4				DN		S
1	W08ZZZ-SL8076W	Investigation of MIS requirements	1						15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL8076C	Investigation of MIS requirements		1					15	25	1	1	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8077W	Methods of management information systems modeling	1						15	25	1	1	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL8077L	Methods of management information systems modeling			1				15	25	1	1	0,6	T/Z	Z		DN	P	S
5	W08ZZZ-SL8078W	Information Systems Analysis	1						15	25	1	1	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL8078P	Information Systems Analysis				1			15	25	1	1	0,6	T/Z	Z		DN	P	S
	ZZZ-SL5ZOM01CS4	Computer science module (5 semester)	2		1			K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K03	45	100	4	4	1,8				DN		S
1	W08ZZZ-SL8087W	Software project in management	2						30	50	2	2	1,2	T/Z	Z		DN		S
2	W08ZZZ-SL8087L	Software project in management			1				15	50	2	2	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8088W	IT Tools in Project Management	2						30	50	2	2	1,2	T/Z	Z		DN		S
4	W08ZZZ-SL8088L	IT Tools in Project Management			1				15	50	2	2	0,6	T/Z	Z		DN	P	S
	ZZZ-SL3ZOM02ES	Economic science module (3 semester)	2	1				K1_ZARZ_W02 K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	45	100	4	4	1,8				DN		S
1	W08ZZZ-SL8071W	Financial Engineering	2						30	50	2	2	1,2	T/Z	Z		DN		S
2	W08ZZZ-SL8071C	Financial Engineering		1					15	50	2	2	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8072W	Market Structures and their Regulation	2						30	50	2	2	1,2	T/Z	Z		DN		S
4	W08ZZZ-SL8072C	Market Structures and their Regulation		1					15	50	2	2	0,6	T/Z	Z		DN	P	S
	ZZZ-SL4ZOM02LS	Legal science module (4 semester)	2	2				K1_ZARZ_W02 K1_ZARZ_W03 K1_ZARZ_W21 K1_ZARZ_W27 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04 K1_ZARZ_K06 K1_ZARZ_K07	60	100	4	4	2,4				DN		S
1	W08ZZZ-SL8079W	Business on the EU market	1						15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL8079C	Business on the EU market		1					15	25	1	1	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8080W	International law	1						15	25	1	1	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL8080C	International law		1					15	25	1	1	0,6	T/Z	Z		DN	P	S

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5	W08ZZZ-SL8081W	Management and protection of intellectual property	1					15	25	1	1	0,6	T/Z	Z		DN		S
6	W08ZZZ-SL8081C	Management and protection of intellectual property		1				15	25	1	1	0,6	T/Z	Z		DN	P	S
Total			12	10				330	600	24	24	13.2						

Altogether for liberal specialization 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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
23	23				705	1310	52	52	28,8

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4.3 Training block - concerning principles of training crediting

The principles of training crediting are an integral part of the Faculty Quality Assurance System - process No. 7 “Carrying out student training” instruction No. 07-00-00-01-00, the update of which was approved by Resolution 56/5/2021–2024 of the Faculty Council of 29/03/2022.

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

Name of training			
Number of ECTS points	Number of ECTS points for BU ¹ classes	Training crediting mode	Code
5	0	Internships can be organized as individual or in mode of recognition of the paid work performed by the student as part of the internship, if the field of study is compatible with the nature of the student's work (required period of employment - minimum three months). The basis for completing the student's internship 1. in an individual mode is: – certificate from the company or institution where the internship took place containing: the actual duration of the internship and an opinion on its course (Annex 3 to process No. 7 “Carrying out student training” instruction No. 07-00-00-00-00), – a written report documenting the results of the practice (Annex 4 to process No. 7 “Carrying out student training” instruction No. 07-00-00-00-00), 2. under the recognition procedure performed by the student gainful employment as part of the internship is: – certificate from the enterprise confirming the fact of employing the student, time of employment and description of the basic tasks performed by the student, – certificate of completion of an internship (internship) organized by AIESEC or another students organizations of a similar nature. Recognition of the traineeship organized by students organizations require documentation to be provided to the Vice-Dean for Students; documents in the following languages are required: Polish, English or German. The internship in the student's electronic record book is credited by the Dean (Vice-Dean for Students) or a person designated by him after getting acquainted with the opinion of the student's intership supervisor and / or documentation regarding the course of the internship.	W08ZZZ-SL8082Q

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Training duration	Training objective
4 weeks	The aim of student internships at the Faculty of Management is preparing students for future professional employment, as well as developing the skills and carrying out the tasks required in a chosen functional area of an organization - in accordance with the stated goals of work practice, in particular: – acquainting the student with the specificity of the professional environment and the rules of functioning business entities, – getting acquainted with the technique of keeping documentation for individual work positions and its proper conduct, – learning the principles of work organization: organizational structures, division of competences, procedures, work planning and control, – shaping the ability to work in teams of people, especially effective communication, preparation for independent work and decision making, – shaping specific professional skills directly related with the place of internship, – verification, development and practical application of acquired during the studies substantive skills, – improving the skills of organizing own work, team work and effective work time management, diligence, responsibility for entrusted tasks, – developing activity, entrepreneurship and team cooperation skills, – gaining experience, knowledge about the labor market and the required skills at work, as well as making a self-assessment of the student's skills to enhance the possibility of successfully competing in the labor market.

4.4 „Diploma dissertation” block *(if it is foreseen at first level studies)*

Type of diploma dissertation	Licencjat	
Number of diploma dissertation semesters	Number of ECTS points	Code
2	1 16	W08ZZZ-SL8023S Diploma seminar W08ZZZ-SL8093D Bachelor thesis
Character of diploma dissertation		
Literature survey, project, computer program, etc.		
Number of BU ¹ ECTS points	8,6	
Number of DN ⁵ ECTS points	17	

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5. Methods of verifying assumed learning outcomes

Type of classes	Ways of verifying assumed learning outcomes
lecture	Examination or test - multiple choice questions with single or multiple answers; open questions
class	Test (multiple choice and/or open questions); written reports in the form of presentations - literature and case studies, diagnostic and/or project reports - empirical research in real organizations, presenting the opinions of representatives of such organizations; spoken presentations using modern presentation technology
laboratory	Technical report or test
project	Written report documenting the diagnosis and solution of a problem, spoken presentation of the project with questions.
seminar	Choice and formulation of a problem/theme; activeness in discussions, written report in an academic style, essay, "mini"-monograph. Spoken presentations using modern presentation technology
work placement	Written report on the work practice given by the student's placement supervisor, confirmation of the completion and nature of the work placement by the employer
diploma thesis	Written report satisfying the current regulations for diploma theses, assessed by the supervisor and a reviewer using an appropriate form.
diploma examination	Spoken presentation of the results of the diploma thesis, answers to questions given by the examination committee, spoken answers to randomly chosen questions from the set appearing in the program of studies.

6. Range of diploma examination

1. Origin and evolution of organizational sciences.
2. Economic sciences – scope and relation to social and technical sciences.
3. Types of economic systems and their elements.
4. Indexes for comparing economies and their usefulness in making decisions at the level of enterprises.
5. The Program of the Single European Market and its influence on the activities of enterprises.
6. Markets and their elements according to classical and liberal economics.
7. Market structures - perfect competition, monopolistic competition, oligopoly, monopoly
8. Theory of the regulatory actions made by government (e.g. the theory of market failures).
9. The essence and features of commercial law. Subjects of commercial law.

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10. Protection of rights, including intellectual property, in the market operations of an enterprise.
11. Legislative protection of competition and of consumers.
12. Creating and liquidating enterprises. Bankruptcy proceedings and rectification proceedings.
13. Intellectual property –its essence, elements, license agreements as an instrument of the commercialization of intellectual property.
14. An organization's life-cycle – phases and its determinants.
15. Elements of an organization – people, technology, processes, structures.
16. Legal, organizational and ownership forms of enterprises.
17. Organizational resources, potential and assets.
18. Legal determinants of enterprise operations in the areas of employment, insurance, environmental protection, agreements with contracting parties, etc.
19. Social, economic and political determinants of organizational behavior – national and global dimensions.
20. An enterprise's cooperation with other entities: the essence and forms of cooperation, cooperatives and alliances.
21. The essence, aims and functions of management.
22. Management methods and techniques - classification criteria, examples of the application of selected methods or techniques.
23. Management as an information and decision-making process.
24. Factors influencing organizational structures.
25. Organizational structure – determinants and directions of evolution.
26. Definition and generic classification of processes. Identifying, mapping, designing and implementing processes.
27. The functional and process forms of the organization of an enterprise.
28. Models and standardization of processes. Methods of evaluating processes.
29. Aims, phases and tools of marketing management.
30. The marketing-mix as a concept for influencing the market.
31. The scope and functioning of marketing research, its procedures and methods.
32. Applied financial analysis – assessment of liquidity, profitability, assets and equity structure.
33. Capital investment – material and cash investments. Methods of evaluating the productivity of investments.
34. Company assets and capital – balance sheet. Revenue and expenditure – financial results. Cash flow statement.
35. The fundamentals of bookkeeping. Accounting.
36. The sources and rules of financing a firm's activities.
37. Periodic evaluation of employees and their professional development – goals, principles, procedures.
38. Job appraisal (essence, aims, methods) and wages (wage tables, wage forms, wage functions).
39. Principles of creating teams; the role of teams in organizations and the factors influencing their efficiency.
40. Goals and strategies of production management in a market economy.
41. Systems and processes of production and services – methods of production management.

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⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

42. The essence of logistics, its fundamentals and levels of integration of logistic processes.
43. Management, planning and organization of logistic processes in an organization.
44. Goals and stages of DMAIC methodology (Define – Measure – Analyze – Improve – Control) used in the Six Sigma approach.
45. Techniques and methods of quality improvement. Costs of quality control.
46. Total Quality Management (TQM) and quality management systems according to ISO 9000 norms – basic differences.
47. Methods of diagnosing and improving an enterprise's activities - examples of applications in various functional areas.
48. Popular methods of evaluating and selecting solutions to problems faced by organizations.
49. Leadership as goal attainment. The influence of motivation on human behavior.
50. The essence of motivation and motivating. Theories of motivation and their characteristics.
51. Processes of social integration in an organization.
52. Organizational norms and values as determinants of ethical behavior of employees in organizations.
53. Interpersonal conflicts – within and between groups. Group cohesion.
54. Organizational culture and the ethics of organizational behavior.
55. Sources and manifestations of power in an organization. Authority, influence, coalitions. leadership.
56. Forces that generate changes in an enterprise - models of managing change.
57. Process of implementing changes in an organization - the sources of resistance to change and ways to neutralize them.
58. The definition and initiation of projects. Evaluation of project feasibility. Analysis of project risk. Project structure.
59. The essence and roles of projects in management. The essence and types of projects. Project life cycle.
60. Project realization and resource planning. Project budgeting. Managing the realization of a project. Organization of a project team.
61. The essence and types of entrepreneurship, determinants of its initiation and development.
62. The essence and types of innovation, organizations and institutions supporting the diffusion of innovation.
63. The influence of the physical environment at work on employees.
64. Mathematical methods applied in management – examples of applications.
65. Multicriteria analysis in decision-making – examples of problems and methods of problem solving.
66. Analysis and forecasting of development trends – examples of applications.
67. Classical linear regression models – examples of applications in management.
68. Process of implementing and exploiting information systems in management.
69. The design of management information systems: assumptions, phases, rules and tools.
70. Assumptions and aims of an enterprise's strategy for applying computerization.
71. Financial analysis (including ratio analysis) of corporate financial statement, as a tool for planning and decision making.
72. Traditional methodologies and agile methodologies for project management – brief characteristic and main differences.
73. Modern methods and tools of human resources management - characteristics and application.

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74. The basic idea behind Markowitz's portfolio theory. The risk-return relationship for stocks and risk-less bonds.
75. Value-at-risk (VaR) - the difference in calculating it using historical simulation and the variance covariance method.
76. The methods of capturing user requirements for the analysis and modelling of processes in an organization.
77. Approaches to improving information processes in an organization.
78. Differences between Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) systems.
79. The role of Decision Trees in supporting decision making.

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

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

8. Plan of studies (attachment no. 3 to the Program of Studies)

Approved by faculty student government legislative body:

.....
Date

.....
name and surname, signature of student representative

.....
Date

.....
Dean's signature

*delete as appropriate

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³Exam – 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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PLAN OF STUDIES

FACULTY:	Management
MAIN FIELD OF STUDY:	Management
EDUCATION LEVEL:	first-level (licencjat) studies
FORM OF STUDIES:	full-time studies
PROFILE:	general academic
SPECIALIZATION:	Organizational Management (OM)
LANGUAGE OF STUDY:	English

In effect since 2023/2024

Plan of studies structure (optionally)

1) in point layout

27			Knowledge management in the organization 2		The microstructure of the global financial market 2	
26		Sport activities 0		Internship 150h/5ECTS		
25			Foreign language A1/A2/ B1/ B2.1/ C1.1 2	Foreign language B2.2/C1.1 3	Total quality management 5	
24		Sociology 2				
23						
22	Social philosophy 2	Work environment physics 4	Organizational behaviour 3	Legal science module 4	Methods and tools of data analysis 3	
21						
20	Information technology 4					
19						
18		Computer science module 4	Computer science module 4		Computer science module 4	Self-presentation 2
17	Civil and commercial law 3			Computer science module 4		
16						
15					Leading project in modern organization 4	Sport activities 0
14	Psychology 2	Social competences module 3	Mathematical Economics 6			Business Process Management 2
13				Operations management 3		
12	Mathematics 9	Descriptive statistics 6	Marketing in the information society 6		Modern human resource management 4	Introduction to risk management 2
11				Logistics 2		
10		Organizational science 3				Information Systems in Management 3
9				Contemporary organizational methods and techniques 2		
8	Essentials of management 5		Economic science module 4		Marketing research 4	Management training 2
7				Marketing management 3		
6		Macroeconomics 6				Financial analysis supported by computer 3
5					Financial management 3	
4	Microeconomics 5		Financial accounting in the organizational decision making process 3	Corporate finance 4		
3		Essentials of finance 2				Bachelor thesis 16
2					Diploma seminar 1	
1						
	I (3E)	II (2E)	III (2E)	IV (2E)	V (2E)	VI (0E)
	30 ECTS	30 ECTS	30 ECTS	30 ECTS	30 ECTS	30 ECTS

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2) in hourly layout

27			Knowledge management in the organization 00002		The microstructure of the global financial market 00002	
26		Sport activities 02000		Internship 150h/5ECTS		
25			Foreign language A1/A2/ B1/ B2.1/ C1.1		Foreign language B2.2/C1.1 04000	
24		Sociology 20000			Total quality management 22000	
23			04000			
22	Social philosophy 20000					
21		Work environment physics 21100				
20	Information technology 20100		Organizational behaviour 21000	Legal science module 22000	Methods and tools of data analysis 10200	
19						
18						
17		Computer science module 20200	Computer science module 20200		Computer science module 20100	Self-presentation 00002
16	Civil and commercial law 21000			Computer science module 21100/21010/20110		
15					Leading project in modern organization 21000	Sport activities 02000
14	Psychology 20000	Social competences module 00002	Mathematical Economics 21000			Business Process Management 10100
13				Operations management 11100		
12		Descriptive statistics 21000			Modern human resource management 22000	Introduction to risk management 11000
11	Mathematics 22000		Marketing in the information society 22000			
10				Logistics 11000		Information Systems in Management 20100
9		Organizational science 21000				
8				Contemporary organizational methods and techniques 11000		
7	Essentials of management 22000				Marketing research 22000	Management training 00200
6			Economic science module 21000			
5		Macroeconomics 22000		Marketing management 10020		Financial analysis supported by computer 20100
4					Financial management 21000	
3	Microeconomics 22000		Financial accounting in the organizational decision making process 21000	Corporate finance 21000		Bachelor thesis 00020
2		Essentials of finance 20000			Diploma seminar 00001	
1						
	I (3E)	II (2E)	III (2E)	IV (2E)	V (2E)	VI (0E)

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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/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/ group of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			Unive rsity- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8060W	Civil and commercial law	2					K1_ZARZ_W03 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL8060C	Civil and commercial law		1					15	25	1	1	0,6	T/Z	Z		DN	P	K
3	W08ZZZ-SL8002W	Essentials of management	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_W06 K1_ZARZ_W07 K1_ZARZ_W08 K1_ZARZ_W18 K1_ZARZ_W19	30	75	3	3	1,2	T/Z	E		DN		K
4	W08ZZZ-SL8002C	Essentials of management		2				K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U14 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN	P	K
5	W08ZZZ-SL8003G	Information technology (GK)	2		1			K1_ZARZ_W25 K1_ZARZ_U11	45	120	4	4	1,5	T/Z	Z		DN	P(2)	K
6	W08ZZZ-SL8004W	Microeconomics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_U02 K1_ZARZ_U03	30	75	3	3	1,2	T/Z	E		DN		K
7	W08ZZZ-SL8004C	Microeconomics		2				K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
8	W08ZZZ-SL8094W	Psychology (H)	2					K1_ZARZ_W16 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		KO
9	W13ZZZ-SL8001G	Mathematics (GK)	2	2				K1_ZARZ_W23 K1_ZARZ_U13 K1_ZARZ_K07	60	270	9		7,0	T	E (lec.)	O		P (4)	PD
10	W08ZZZ-SL8095W	Social philosophy	2					K1_ZARZ_W17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN?		KO
Total			14	7	1	0	0		330	815	30	21	17,5						

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⁴University-wide course /group of courses – enter O

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

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

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
14	7	1	0	0	330	815	30	21	17,5

Semester 2

Obligatory courses / groups of courses

Number of ECTS points 23.....

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8006W	Descriptive statistics	2					K1_ZARZ_W23 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	30	120	4	4	1	T/Z	E		DN		PD
2	W08ZZZ-SL8006C	Descriptive statistics		1				K1_ZARZ_W10 K1_ZARZ_K01 K1_ZARZ_K06	15	60	2	2	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL8061W	Essentials of finance	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W23 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		K
4	W08ZZZ-SL8008W	Macroeconomics	2					K1_ZARZ_W05 K1_ZARZ_W04 K1_ZARZ_W07 K1_ZARZ_W10 K1_ZARZ_W11 K1_ZARZ_U01 K1_ZARZ_U02 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	100	4	4	1,2	T/Z	E		DN		K
5	W08ZZZ-SL8008C	Macroeconomics		2					30	50	2	2	1,2	T/Z	Z		DN	P	K
6	W08ZZZ-SL8062W	Organizational science	2						30	50	2	2	1,2	T/Z	Z		DN		K
7	W08ZZZ-SL8062C	Organizational science		1					15	25	1	1	0,6	T/Z	Z		DN	P	K

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								K1_ZARZ_K04 K1_ZARZ_K06 K1_ZARZ_K07											
8	W08ZZZ-SL8010W	Sociology (H)	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W04 K1_ZARZ_W11 K1_ZARZ_W17 K1_ZARZ_W19 K1_ZARZ_K01 K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN		KO
9	W08ZZZ-SL8012W	Work environment physics	2					K1_ZARZ_W03 K1_ZARZ_W04 K1_ZARZ_W22	30	60	2	2	1	T/Z	Z		DN		PD
10	W08ZZZ-SL8012C	Work environment physics		1				K1_ZARZ_U05 K1_ZARZ_U12 K1_ZARZ_K02	15	30	1	1	0,5	T/Z	Z		DN	P	PD
11	W08ZZZ-SL8012L	Work environment physics			1			K1_ZARZ_K04	15	30	1	1	0,5	T/Z	Z		DN	P	PD
Total			12	5	1	0	0		270	625	23	23	10,1						

Optional courses / groups of courses (minimum ...120... hours in semester, ...7.... ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL2ZOM01CS1	Computer science module	2		2			K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U17 K1_ZARZ_K06	60	100	4	4	2,4	T/Z	Z		DN	P(2)	S
1a	W08ZZZ-SL8063W	Data processing technology	2						30	50	2	2	1,2	T/Z	Z		DN		S
1b	W08ZZZ-SL8063L	Data processing technology			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
1c	W08ZZZ-SL8064W	Introduction to SQL	2						30	50	2	2	1,2	T/Z	Z		DN		S
1d	W08ZZZ-SL8064L	Introduction to SQL			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
2	ZZZ- SL2ZOM02SC	Social competences module					2	K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U15 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04 K1_ZARZ_K05 K1_ZARZ_K06	30	75	3	3	1,2	T/Z	Z		DN	P	KO
2a	W08ZZZ-SL8066S	Communication in management					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
2b	W08ZZZ-SL8065S	Management of own potential					2		30	75	3	3	1,2	T/Z	Z		DN	P	KO
3	SWF-S00000	Sport activities		2				K1_ZARZ_K07	30	30	0	0,0	0,0	T	Z	O		P	KO
Total			2	2	2	0	2		120	205	7	7	3,6						

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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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
14	7	3	0	2	390	830	30	30	13,7

Semester 3

Obligatory courses / groups of courses

Number of ECTS points ...20.....

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8015W	Mathematical Economics	2					K1_ZARZ_W01 K1_ZARZ_W02 K1_ZARZ_W10 K1_ZARZ_W23 K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	30	120	4	4	1	T/Z	E		DN		PD
2	W08ZZZ-SL8015C	Mathematical Economics		1				K1_ZARZ_W10 K1_ZARZ_W23 K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_U04 K1_ZARZ_K06	15	60	2	2	0,5	T/Z	Z		DN	P	PD
3	W08ZZZ-SL8067W	Financial accounting in the organizational decision making process	2					K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K04 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		S
4	W08ZZZ-SL8067C	Financial accounting in the organizational decision making process		1				K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K04 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	S
5	W08ZZZ-SL8014W	Marketing in the information society	2					K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K06	30	100	4	4	1,2	T/Z	E		DN		S
6	W08ZZZ-SL8014C	Marketing in the information society		2				K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	S
7	W08ZZZ-SL8068W	Organizational behaviours	2					K1_ZARZ_W17 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U08 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K04 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		K
8	W08ZZZ-SL8068C	Organizational behaviours		1				K1_ZARZ_W17 K1_ZARZ_W18 K1_ZARZ_W19 K1_ZARZ_U08 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K04 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
9	W08ZZZ-SL8096S	Knowledge management in the organization					2	K1_ZARZ_U02 K1_ZARZ_U06 K1_ZARZ_U08 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			8	5	0	0	2		225	530	20	20	8,7						

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Optional courses / groups of courses (minimum ...165... hours in semester, ...10.... ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL3ZOM01CS2	Computer science module	2		2			K1_ZARZ_W24 K1_ZARZ_W26 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02	60	100	4	4	2,4	T/Z	Z		DN	P(2)	S
1a	W08ZZZ-SL8069W	Programming basics - Python	2						30	50	2	2	1,2	T/Z	Z		DN		S
1b	W08ZZZ-SL8069L	Programming basics - Python			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
1c	W08ZZZ-SL8070W	Programming basics - VBA	2						30	50	2	2	1,2	T/Z	Z		DN		S
1d	W08ZZZ-SL8070L	Programming basics - VBA			2				30	50	2	2	1,2	T/Z	Z		DN	P	S
2	ZZZ- SL3ZOM02ES	Economic science module	2	1				K1_ZARZ_W02 K1_ZARZ_W10 K1_ZARZ_W27 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	45	100	4	4	1,8	T/Z	Z		DN	P(2)	S
2a	W08ZZZ-SL8071W	Financial Engineering	2						30	50	2	2	1,2	T/Z	Z		DN		S
2b	W08ZZZ-SL8071C	Financial Engineering		1					15	50	2	2	0,6	T/Z	Z		DN	P	S
2c	W08ZZZ-SL8072W	Market Structures and their Regulation	2						30	50	2	2	1,2	T/Z	Z		DN		S
2d	W08ZZZ-SL8072C	Market Structures and their Regulation		1					15	50	2	2	0,6	T/Z	Z		DN	P	S
3	SJO-SI0003	Foreign language A1/A2/ B1/ B2.1/ C1.1		4				K1_ZARZ_U17 K1_ZARZ_K06	60	70	2		1,5	T/Z	Z	O		P	KO
Total			4	5	2	0	0		165	270	10	8	5,7						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
12	10	2	0	2	390	800	30	28	14,4

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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 ...14.....

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8073W	Contemporary organizational methods and techniques	1					K1_ZARZ_W06 K1_ZARZ_W16 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04	15	25	1	1	0,6	T/Z	Z		DN		S
2	W08ZZZ-SL8073C	Contemporary organizational methods and techniques		1				K1_ZARZ_W06 K1_ZARZ_W16 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K04	15	25	1	1	0,6	T/Z	Z		DN	P	S
3	W08ZZZ-SL8018W	Corporate finance	2					K1_ZARZ_W10 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02	30	75	3	3	1,2	T/Z	E		DN		K
4	W08ZZZ-SL8018C	Corporate finance		1				K1_ZARZ_W10 K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02	15	25	1	1	0,6	T/Z	Z		DN	P	K
5	W08ZZZ-SL8074W	Logistics	1					K1_ZARZ_W08 K1_ZARZ_W13 K1_ZARZ_U02 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		K
6	W08ZZZ-SL8074C	Logistics		1				K1_ZARZ_W08 K1_ZARZ_W13 K1_ZARZ_U02 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
7	W08ZZZ-SL8075W	Marketing management	1					K1_ZARZ_W05 K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U08 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		K
8	W08ZZZ-SL8075P	Marketing management				2		K1_ZARZ_W05 K1_ZARZ_W08 K1_ZARZ_W09 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U08 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
9	W08ZZZ-SL8022W	Operations management	1					K1_ZARZ_W08 K1_ZARZ_W12 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	E		DN		K
10	W08ZZZ-SL8022C	Operations management		1				K1_ZARZ_W08 K1_ZARZ_W12 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
11	W08ZZZ-SL8022L	Operations management			1			K1_ZARZ_W08 K1_ZARZ_W12 K1_ZARZ_U03 K1_ZARZ_U06 K1_ZARZ_U07 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
Total			6	4	1	2	0		195	350	14	14	7,8						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Optional courses / groups of courses (minimum ...180... hours in semester, ...16.... ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	ZZZ- SL4ZOM01CS3	Computer science module	2	2				K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01	60	100	4	4	2,4	T/Z	Z		DN	P(2)	S
1a	W08ZZZ-SL8076W	Investigation of MIS requirements	1						15	25	1	1	0,7	T/Z	Z		DN		S
1b	W08ZZZ-SL8076C	Investigation of MIS requirements		1					15	25	1	1	0,7	T/Z	Z		DN	P	S
1c	W08ZZZ-SL8077W	Methods of management information systems modeling	1						15	25	1	1	0,7	T/Z	Z		DN		S
1d	W08ZZZ-SL8077L	Methods of management information systems modeling			1				15	25	1	1	0,7	T/Z	Z		DN	P	S
1e	W08ZZZ-SL8078W	Information Systems Analysis	1						15	25	1	1	0,7	T/Z	Z		DN		S
1f	W08ZZZ-SL8078P	Information Systems Analysis				1			15	25	1	1	0,7	T/Z	Z		DN	P	S
2	ZZZ- SL4ZOM02LS	Legal science module	2	2				K1_ZARZ_W02 K1_ZARZ_W03 K1_ZARZ_W21 K1_ZARZ_W27 K1_ZARZ_U05 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04 K1_ZARZ_K06 K1_ZARZ_K07	60	100	4	4	2,4	T/Z	Z		DN	P(2)	S
2a	W08ZZZ-SL8079W	Business on the EU market	1						15	25	1	1	0,7	T/Z	Z		DN		S
2b	W08ZZZ-SL8079C	Business on the EU market		1					15	25	1	1	0,7	T/Z	Z		DN	P	S
2c	W08ZZZ-SL8080W	International law	1						15	25	1	1	0,7	T/Z	Z		DN		S
2d	W08ZZZ-SL8080C	International law		1					15	25	1	1	0,7	T/Z	Z		DN	P	S
2e	W08ZZZ-SL8081W	Management and protection of intellectual property	1						15	25	1	1	0,7	T/Z	Z		DN		S
2f	W08ZZZ-SL8081C	Management and protection of intellectual property		1					15	25	1	1	0,7	T/Z	Z		DN	P	S
3	SJO-SI0004	Foreign language B2.2 C1.2		4				K1_ZARZ_U17 K1_ZARZ_K06	60	80	3		2,0	T	Z	O		P	KO
4	W08ZZZ- SL8082Q	Internship (4th lub 5th semester)						K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03	0	150	5		0,0	T	Z			P	K
Total			4	8	0	0	0		180	430	16	8	6,8						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
10	12	1	2	0	375	780	30	22	14,6

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Semester 5

Obligatory courses / groups of courses

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

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8083W	Financial management	2					K1_ZARZ_W08 K1_ZARZ_W10 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL8083C	Financial management		1				K1_ZARZ_W20 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K05 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	K
3	W08ZZZ-SL8025W	Leading project in modern organizations	2					K1_ZARZ_W20 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K05 K1_ZARZ_K06	30	75	3	3	1,2	T/Z	E		DN		S
4	W08ZZZ-SL8025C	Leading project in modern organizations		1				K1_ZARZ_W20 K1_ZARZ_W27 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K05 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN	P	S
5	W08ZZZ-SL8084W	Marketing research	2					K1_ZARZ_W09 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN		K
6	W08ZZZ-SL8084C	Marketing research		2				K1_ZARZ_W09 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K02 K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
7	W08ZZZ-SL8085W	Methods and Tools of Data Analysis	1					K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		S
8	W08ZZZ-SL8085L	Methods and Tools of Data Analysis			2			K1_ZARZ_W24 K1_ZARZ_W25 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	S
9	W08ZZZ-SL8086W	Modern human resource management	2					K1_ZARZ_W08 K1_ZARZ_W11 K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04	30	50	2	2	1,2	T/Z	Z		DN		S
10	W08ZZZ-SL8086L	Modern human resource management		2				K1_ZARZ_W08 K1_ZARZ_W11 K1_ZARZ_W27 K1_ZARZ_U09 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K04	30	50	2	2	1,2	T/Z	Z		DN	P	S
11	W08ZZZ-SL8030W	Total quality management	2					K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	75	3	3	1,2	T/Z	E		DN		K
12	W08ZZZ-SL8030C	Total quality management		2				K1_ZARZ_W14 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN	P	K
13	W08ZZZ-SL8097S	The microstructure of the global financial market					2	K1_ZARZ_U04 K1_ZARZ_U10 K1_ZARZ_U14 K1_ZARZ_K07	30	50	2	2	1,2	T/Z	Z		DN	P	S
Total			11	8	2	0	2		345	625	25	25	13,8						

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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, ...5.... ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/gr oup of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8023S	Diploma seminar					1	K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K
2	ZZZ-SL5ZOM01CS4	Computer science module	2		1			K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K03	45	100	4	4	1,8	T/Z	Z		DN	P(1)	S
2a	W08ZZZ-SL8087W	Software project in management	2						30	50	2	2	1,2	T/Z	Z		DN		S
2b	W08ZZZ-SL8087L	Software project in management			1				15	50	2	2	0,6	T/Z	Z		DN	P	S
2c	W08ZZZ-SL8088W	IT Tools in Project Management	2						30	50	2	2	1,2	T/Z	Z		DN		S
2d	W08ZZZ-SL8088L	IT Tools in Project Management			1				15	50	2	2	0,6	T/Z	Z		DN	P	S
Total			2	0	1	0	1		60	125	5	5	2,4						

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 ⁵	Number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
13	8	3	0	3	405	750	30	30	16,2

Semester 6

Obligatory courses / groups of courses

Number of ECTS points ...14.....

No	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/ group of course s	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			University -wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8090W	Financial analysis supported by computer	2					K1_ZARZ_W10 K1_ZARZ_W24 K1_ZARZ_U04 K1_ZARZ_U06 K1_ZARZ_U10	30	50	2	2	1,2	T/Z	Z		DN		K
2	W08ZZZ-SL8090L	Financial analysis supported by computer			1			K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01	15	25	1	1	0,6	T/Z	Z		DN	P	K

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

3	W08ZZZ-SL8092W	Introduction to risk management	1					K1_ZARZ_W24 K1_ZARZ_W27 K1_ZARZ_U04 K1_ZARZ_U14 K1_ZARZ_U16 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	15	25	1	1	0,6	T/Z	Z		DN		S
4	W08ZZZ-SL8092C	Introduction to risk management		1					15	25	1	1	0,6	T/Z	Z		DN	P	S
5	W08ZZZ-SL8091W	Information Systems in Management	2					K1_ZARZ_W24 K1_ZARZ_W26 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K05	30	50	2	2	1,2	T/Z	Z		DN		K
6	W08ZZZ-SL8091L	Information Systems in Management			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
7	W08ZZZ-SL8039L	Management training			2			K1_ZARZ_W08 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U10 K1_ZARZ_U11 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K05 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
8	W08ZZZ-SL8089W	Business Process Management	1					K1_ZARZ_W08 K1_ZARZ_W15	15	25	1	1	0,6	T/Z	Z		DN		K
9	W08ZZZ-SL8089L	Business Process Management			1				15	25	1	1	0,6	T/Z	Z		DN	P	K
10	W08ZZZ-SL8098S	Self-presentation					2	K1_ZARZ_K03 K1_ZARZ_K06	30	50	2	2	1,2	T/Z	Z		DN	P	K
Total			6	1	5	0	2		210	350	14	14	8,4						

Optional courses / groups of courses (minimum 60 hours in semester, 16 ECTS points)

No.	Course/ group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	Weekly number of hours					Learning effect symbol	Number of hours		Number of ECTS points			Form ² of course/ group of courses	Way ³ of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	Total	DN ⁵ classes	BU ¹ classes			Univer- sity- wide ⁴	Concerning scientific activities ⁵	Practical ⁶	Type ⁷
1	W08ZZZ-SL8093D	Bachelor thesis				2		K1_ZARZ_U02 K1_ZARZ_U03 K1_ZARZ_U04 K1_ZARZ_U05 K1_ZARZ_U06 K1_ZARZ_U13 K1_ZARZ_U14 K1_ZARZ_U17 K1_ZARZ_K01 K1_ZARZ_K06	30	400	16	16	8,0	T/Z	Z		DN	P	K
2	SWF-S00000	Sport activities		2				K1_ZARZ_K06	30	0	0	0,0	0,0	T	Z	O		P	KO
Total			0	2	0	2	0		60	400	16	16	8,0						

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 ⁵	Total number of ECTS points for BU classes ¹
lec	cl	lab	pr	sem					
6	3	5	2	2	270	750	30	30	16,4

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – 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-SL8002W	Essentials of management	1
W13ZZZ-SL8001G	Mathematics (GK)	1
W08ZZZ-SL8004W	Microeconomics	1
W08ZZZ-SL8006W	Descriptive statistics	2
W08ZZZ-SL8008W	Macroeconomics	2
W08ZZZ-SL8015W	Mathematical Economics	3
W08ZZZ-SL8014W	Marketing in the information society	3
W08ZZZ-SL8018W	Corporate finance	4
W08ZZZ-SL8022W	Operations management	4
W08ZZZ-SL8025W	Leading project in modern organizations	5
W08ZZZ-SL8030W	Total quality management	5

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

Semester	Allowable deficit of ECTS points after semester
1	13
2	17
3	12
4	11
5	6
6	0

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

Opinion of student government legislative body

.....
Date

.....
Name and surname, signature of student representative

.....
Date

.....
Dean's signature

¹BU – number of ECTS points assigned to hours of classes requiring direct participation of academic teachers and other persons conducting classes

²Traditional – enter T, remote – enter Z

³Exam – 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)

⁴University-wide course /group of courses – enter O

⁵DN - 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

⁶Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

⁷KO – general education courses, PD – basic sciences courses, K – main field of study courses, S – specialization courses

SPECJALNOŚĆ/SPECIALTY:

**Zarządzanie
przedsiębiorstwem**

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Analiza finansowa wspomagana komputerem****Name of subject in English: Computer aided financial analysis****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0126****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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,6		1,2		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of corporate finance and business organizations management.
2. The ability to use MS Office.

SUBJECT OBJECTIVES

1. Acquiring the ability to apply general knowledge of economic analysis in practice.
2. Acquiring the ability to independently conduct an analysis of the financial condition based on standard economic reporting.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 Knows and characterizes the elements of economic analysis.

PEU_W02 Identifies the scope of knowledge necessary for the proper conduct of an economic analysis.

Relating to skills:

PEU_U01 Is able to perform a financial analysis, to draw analytical conclusions, is able to list the basic tools useful in economic analysis.

PEU_U02 Knows how to use financial reporting as a source of knowledge for assessing the financial condition of enterprises.

Relating to social competences:

PEU_K01 Is aware of the complexity of socio-economic systems and overview consequences of business decisions.

PEU_K02 Is able to focus on independent and critical search, selection of methods, techniques and tools supporting the management of organizational knowledge.

PROGRAMME CONTENT

Lectures		Number of hours
Lec1	Discussion of the purpose and structure of the lecture. Defining requirements. Organizational matters.	1
Lec2	Analytical proceedings in auditing financial statements	2
Lec3	Selection of patterns for analysis. Overview of available databases of financial statements.	2
Lec4	Liquidity analysis. Profitability analysis.	2
Lec5	Analysis of the situation of assets and capital. Analysis of the company's market position.	2
Lec6	Synthetic analysis.	2
Lec7	Basic IT tools used in economic analysis.	2
Lec8	Test/ Term work.	2
	Total hours	15

Laboratory		Number of hours
La1	Overview of the purpose and structure of the laboratory. Defining requirements. Organizational matters. Company Allocation.	3
La2	Choice of reference values. Preliminary analysis.	4
La3	Liquidity analysis in terms of static and dynamic approach.	4
La4	Profitability analysis.	4
La5	Analysis of the situation of assets and capital.	4
La6	Analysis of the company's market position.	4
La7	Synthetic analysis.	4
La8	Presentation of the results.	3
	Total hours	30

TEACHING TOOLS USED

N1. MS Office
N2. Problem lecture
N3. Discussions

N4. Case study
N5. Work completed with the presentation of results

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	Test/ Term work
F2	PEU_U01, PEU_U02	Report
F3	PEU_U01, PEU_U02 PEU_K01, PEU_K02	participation in the summary discussion
F4	PEU_W01, PEU_W02 PEU_U01, PEU_U02 PEU_K01, PEU_K02	Activity
P(laboratory)= 0,8*F2+0,2*F3 P(lecture)=0,8*F1+0,2*F4		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. Radosiński E., Sprawozdawczość finansowa, Wydawnictwo Naukowe PWN, Warszawa 2020.
2. Bławat, F., Drajska, E., Figura, P., Gawrycka, M., Korol, T., & Prusak, B. Analiza finansowa przedsiębiorstwa. Finansowanie, inwestycje, wartość, syntetyczna ocena kondycji finansowej, CeDeWu, Warszawa 2017.
3. Radosiński E., Wprowadzenie do sprawozdawczości, analizy i informatyki ekonomicznej, Wydawnictwo Naukowe PWN, Warszawa 2010 .

SECONDARY LITERATURE:

1. Kowalak R., Ocena kondycji finansowej przedsiębiorstwa, Wyd. ODDK, Gdańsk 2008.
2. Mączyńska E., Bankructwa przedsiębiorstw. Wymiar teoretyczny, statystyczny i rzeczywisty, "Biuletyn PTE", nr 1, s. 7-35, 2013.
3. Bednarski L., Analiza finansowa w przedsiębiorstwie, PWE Warszawa 2006.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr Sebastian Tomczak, sebastian.tomczak@pwr.edu.pl

dr Joanna Kott, joanna.kott@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish:** Analiza i projektowanie użytkowych systemów interakcyjnych**Name in English:** Analysis and design of usable interactive systems**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Management**Profile:** academic**Level and form of studies:** 1st level, full-time studies**Kind of subject:** optional**Subject code:** W08ZZZ-SL0155P**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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Understands and knows the basic functionality of information systems.
2. Has basic knowledge of statistical methods.

SUBJECT OBJECTIVES

C1: To gain skills of using analysis and support tools to design interfaces of useful information systems.

C2: To acquire and consolidate social competences in the ability to cooperate in a student group.

C3: To develop habits of cooperation with designers of information systems.

SUBJECT LEARNING EFFECTS

relating to skills:

PEU_U01: Is able to use basic tools to assess the usability in the paradigm of ISO 9241 standard

PEU_U02: Is able to diagnose and correct basic factors determining the level of usability

PEU_U03: Can apply selected methods to design information system interface of high usability

relating to social competences:

PEU_K01: Acquisition and development of team collaboration skills in order to optimally solve assigned problems		
Project		Number of hours
Pr1	Overview of organizational issues. Task analysis as a paradigm for evaluating and designing interactive systems.	2
Pr2	Evaluation of effectiveness and efficiency of an IT product based on KLM model ('keystrokes'), Fitts' law and user research.	2
Pr3	Subjective evaluation of software usability quality - construction of accurate and reliable research tools.	2
Pr4	Heuristic evaluation methods (checklists, cognitive walkthrough methods).	2
Pr5	Interface optimization by task analysis method. Rapid interface prototyping in visual systems, Power Point.	2
Pr6	Consultations in project teams: initial assumptions and outline of the project theme and selection of methods and techniques to be used.	4
Pr7	Consultations in project teams: modeling and prototyping variants of a selected interaction system.	4
Pr8	Consultations in project teams: evaluation and analysis of designed variants of a selected interactive system.	4
Pr9	Consultations in project teams: verification and validation of the final design.	4
Pr10	Defense session of individual projects. Demonstration of the results of individual teams in the form of presentation and written report.	4
	Total hours	30
TEACHING TOOLS USED		
N1. Shared teaching materials published on websites		
N2. Group work completed with the presentation of the results		
N3. Consultations		

EVALUATION OF SUBJECT LEARNING EFFECTS ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_U01 – PEU_U03, PEU_K01	Project realization and report preparation
F2	PEU_U01 – PEU_U03, PEU_K01	Presentation and defense of the project
$P = 0.8 * F1 + 0.2 * F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Krug S. 2014, Nie każ mi myśleć, Helion [2] Mayhew D. 1999, The usability engineering lifecycle, Morgan Kaufman [3] Preece J., Sharp H., Rogers Y. 2015, Interaction Design: Beyond Human-Computer Interaction, Wiley <u>SECONDARY LITERATURE:</u> [1] Articles and teaching materials from http://ergonomia.ioz.pwr.wroc.pl [2] Articles from the following journals: Ergonomics, Human-Computer Interactions, International Journal of Human-Computer Studies, International Journal of Industrial Ergonomics, Interacting with Computers, Applied Ergonomics, Human Factors, Behaviour & Information Technology. [3] Górski J. (red) Inżynieria oprogramowania w projekcie informatycznym. Wyd Mikom Warszawa 1999. [4] Helander M. (1995). Human-Computer Interaction. Elsevier, Amsterdam. [5] Lewis C. Rieman J. 1994 Zadaniowe projektowanie komunikacji z użytkownikiem,. Internetowa wersja książki (wersja polska z ftp.sunrise.pg.gda.pl/pub). <u>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</u> dr hab. inż. Rafał Michalski, prof. uczelni, rafal.michalski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Analiza strategii marketingowych w Internecie i mediach cyfrowych

Name of subject in English: Analysis of marketing strategies in the Internet and digital media

Main field of study (if applicable): MANAGEMENT

Specialization (if applicable): Business management

Level and form of studies: 1st level studies, full-time

Kind of subject: optional

Subject code: W08ZZZ-SL0086P

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)				125	
Form of crediting				Crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. None

SUBJECT OBJECTIVES

C1. Developing analytical, planning and coordinating skills necessary for marketing actions in the internet and digital media.

SUBJECT EDUCATIONAL EFFECTS

Relating to skills:

PEU_U01 – Be able to plan and develop various marketing activates using modern methods of communication.

PEU_U02 – Be able to use modern references and advanced tools to coordinate marketing activities in the internet and digital media.

Relating to social competences:

PEU_K01 – Be aware of information society characteristics and its change potential in marketing activities.

Form of classes - project		Number of hours
Proj 1	Introduction and crediting rules	2
Proj 2	Research object selection	2
Proj 3	Consultations of the scope and aims of research project	2
Proj 4	Presentation of the chosen subject, research problems and goals	2
Proj 5	Enterprise description	2
Proj 6	Market position analysis	2
Proj 7	Marketing strategy analysis	2
Proj 8	Customers and stakeholders analysis	2
Proj 9	IT analysis	2
Proj 10	SWOT analysis	2
Proj 11	New marketing strategy proposal	2
Proj 12	Proposed actions, tools and technologies	2
Proj 13	Discussion and feasibility study	2
Proj 14	Projects presentation	2
Proj 15	Final assessment	2
	Total hours	30
TEACHING TOOLS USED		
N1. Project N2. Group work N3. Class discussion		

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 PEU_K01	Engagement in problem discussions
F2	PEU_U01 PEU_U02 PEU_K01	Report
$P = 0,5 \cdot F1 + 0,5 \cdot F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Agnieszka Izabela Baruk, Katarzyna Hys, Adam Dzikowski, Marketing dla inżynierów , PWE, 2012 [2] Hermawan Kartajaya, Iwan Setiawan, Philip Kotler, Marketing 4.0, MT Biznes, 2017 [3] Grzegorz Mazurek, Transformacja cyfrowa. Perspektywa marketingu, PWN, 2020 [4] Jarosław Królewski, Paweł Sala, E-marketing. Współczesne trendy. Pakiet startowy. PWN 2021
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Adam Dzikowski, adam.dzikowski@pwr.wroc.pl

FACULTY MANAGEMENT**SUBJECT CARD****Name in Polish:** Analiza, ocena i reengineering procesów logistycznych**Name in English:** Analysis, evaluation and reengineering of logistic processes in an enterprise**Main field of study (if applicable):** Management**Specialization (if applicable):** Business management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL0156P**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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basics knowledge of quality management

SUBJECT OBJECTIVES

C1. Acquisition of skills to identify and analyze problems related to the functioning of logistics processes in real organizations and supply chains.

C2. Acquisition of skills for practical using the acquired knowledge in the field of logistics management to design solutions that improve the functioning logistics process in a selected organizations or supply chain.

SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU_U01 – Student is able diagnose the existing logistic process actual in a real organization or supply chain and identify the possibilities of its improvement.

relating to social competences:

PEU_K01 – Student acts ethically.

PEU_K02 – Student is responsible for the assigned tasks.

PEU_K03 – Student can work in a team.		
Form of classes - project		Number of hours
Proj1	Presentation of goals and the scenario of classes. Discussion of the main thematic areas of the proposed diagnostic and design works; proposing a detailed substantive scope of these works.	2
Proj2	Presentation of the proposed methodology of diagnostic and design works. Discussing the structure of the written report and the rules for its editing.	2
Proj3	Declares by students for particular topics (after they have previously identified the demand from enterprises for the implementation of a specific project).	2
Proj4	Presentation of the research plan and plan of the written report by each project team.	2
Proj5	Consultation of the 1-st stage of the project according to the established schedule by the project teams.	2
Proj6	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj7	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj8	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj9	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj10	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj11	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj12	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj13	The final presentation of the whole project by individual teams.	2
Proj14	The final presentation of the whole project by individual teams, con	2
Proj15	Summary of research. Final acceptance and substantive evaluation of submitted projects.	2
	Total hours	30
TEACHING TOOLS USED		
N1. Self-research in an organisation. N2. Project development. N3. Team work N4. Discussion.		

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_K01	Assessment of project.
F2	PEU_K03	Assessment of group work.
F3	PEU_K02	Assessment of timely delivery of the project.
F4	PEU_U01	Assessment of the presentation.
P= 0,6*F1+0,1*F2+0,1*F3+0,2*F4		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] M.Jacyna, K.Lewczuk, „Projektowanie systemów logistycznych”, Wydawnictwo Naukowe PWN, 2016 [2] M.Ciesla, G.Hat-Garncarz, T.Opasiak, P.Nowakowski, „Logistyka w łańcuchu dostaw. Wybrane zagadnienia”, Wydawnictwo Politechniki Śląskiej, 2017 [3] St.Krawczyk, „Zarządzanie procesami logistycznymi, PWE, 2001 <u>SECONDARY LITERATURE:</u> [1] J.Witkowski, „Zarządzanie łańcuchem dostaw”, PWE 2016 [2] A.Łapko, N.Wagner, „Logistyka dystrybucji”, CeDeWu, 2021 [3] M.Kłodawski, Modelowanie procesów magazynowych w zastosowaniu do oceny wydajności i bezpieczeństwa pracy w magazynach”, Oficyna Wydawnicza Politechniki Warszawskiej, 2018 [4] E.Gołębska, M.Gołębski, Z.Bentyn, „Logistyka usług”, Wydawnictwo Naukowe PWN, 2017
<u>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</u> Agnieszka Potocka, agnieszka.potocka@pwr.edu.pl

FACULTY MANAGEMENT

SUBJECT CARD**Name of subject in Polish** Badania marketingowe**Name of subject in English** Marketing research**Main field of study (if applicable):** Zarządzanie**Specialization (if applicable):** Business management**Profile:** academic**Level and form of studies:** 1st/, full-time**Kind of subject:** obligatory**Subject code** W08ZZZ-SL0132**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)	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)	0			2	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,2			1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of marketing fundamentals
2. Knowledge and skills from use of statistics to analyze and evaluate data

SUBJECT OBJECTIVES

C1 Learning to understand the role, principles and methods of marketing research, selection and use of marketing research tools

C2 Showing the possibilities of using research results in marketing management

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student knows the procedures and principles of conducting marketing research

PEU_W02 Student knows how to select research methods for a given problem in the field of marketing

relating to skills:

PEU_U01 Student is able to design marketing research using quantitative and qualitative methods

relating to social competences:

PEU_K01 Student understands the ethical issues related to conducting marketing research

PEU_K02 Student is able to justify the actions and decisions taken at every stage of marketing research

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational classes: discussion of the conditions of assessment, presentation of the substantive scope of the lecture. The role and importance of marketing research in managing a business organization.	2
Lec 2	The process of designing marketing research - stages. Types of marketing research and their applications.	2
Lec 3	Secondary marketing data collection (1).	2
Lec 4	Secondary marketing data collection (2).	2
Lec 5	Research sample selection methods. Primary marketing data collection - survey method (basic concepts, types).	2
Lec 6	Primary marketing data collection - survey method (research procedure, rules for building questionnaires, measurement and scaling).	2
Lec 7	Primary marketing data collection - survey method (data collection and analysis).	2
Lec 8	Primary marketing data collection - qualitative research.	2
Lec 9	Primary marketing data collection - experiments.	2
Lec 10	Internet marketing research.	2
Lec 11	Customer satisfaction and loyalty surveys.	2
Lec 12	Product research. Price and distribution system research. Research on the effectiveness of the communication system.	2
Lec 13	Ethical aspects of marketing research.	2
Lec 14	Colloquium I	2
Lec 15	Colloquium II	2
	Total hours	30
Project		Number of hours
Proj 1	Organizational classes: discussion of the credit conditions, presentation of the substantive scope of the project, creation of project teams.	2
Proj 2	Determination of the marketing research purpose and scope, definition of implementation stages, detailed research plan - individual consultations.	2
Proj 3	Determining the purpose and scope of marketing research, defining implementation stages, detailed research plan – presentations.	2
Proj 4	Secondary data collection - individual consultations.	2
Proj 5	Secondary data collection – presentations.	2
Proj 6	Primary data collection (survey method: selection of a research sample, questionnaire construction) - individual consultations.	2
Proj 7	Primary data collection (survey method: selection of a research sample, questionnaire construction) - individual consultations.	2
Proj 8	Primary data collection (survey method: selection of a research sample, questionnaire construction) – presentations.	2

Proj 9	Primary data collection (survey method: selection of a research sample, questionnaire construction) - individual consultations after pilot study.	2
Proj 10	Primary data collection (survey method: data analysis and presentation) - individual consultations.	2
Proj 11	Primary data collection (survey method: data analysis and presentation) – presentations.	2
Proj 12	Primary data collection (qualitative research) - individual consultations.	2
Proj 13	Primary data collection (qualitative research) – presentations.	2
Proj 14	Experiments.	2
Proj 15	Discussion of the project substantive scope and evaluation.	2
	Total hours	30

TEACHING TOOLS USED
N1. Informative lecture supported by multimedia presentation N2. Problem lecture supported by multimedia presentation N3. Case studies N4. Project 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_W01 PEU_W02 PEU_K01	Colloquium
F2	PEU_U01	Project
F3	PEU_U01	Presentation
F4	PEU_K02	Presentation
P (lecture) = F1 P (project) = 0,6*F2+0,4*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Mazurek – Łopacińska K., Badania marketingowe : metody, techniki i obszary aplikacji na współczesnym rynku, Wydawnictwa Naukowe PWN, Warszawa 2016 [2] Kaczmarczyk S., Badania marketingowe : podstawy metodyczne, Polskie Wydawnictwo Ekonomiczne, Warszawa 2014 <u>SECONDARY LITERATURE:</u> [1] Schroeder J., Bartosik-Purgat M., Mruk H., Międzynarodowe badania marketingowe, Wydawnictwo Uniwersytetu Ekonomicznego, Poznań 2013 [2] Popławski W., Skawińska E., Andruszko K., Badania marketingowe w zarządzaniu organizacją, Polskie Wydawnictwo Ekonomiczne, Warszawa 2012 [3] Kotler Ph., Keller K., Marketing, Dom Wydawniczy REBIS, Poznań 2020
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
dr inż. Anna Sałamacha, anna.salamacha@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Diagnostyka ergonomiczna i projektowanie stanowisk pracy****Name in English: Ergonomic diagnosis and design of work stations****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0157P****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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of descriptive statistics.
2. Knowledge regarding the work environment physics.

SUBJECT OBJECTIVES

C1: To acquire skills of using tools for analysis and support of human workstation design

C2: To gain and consolidate social competences consisting in cooperation skills.

C3: Developing habits of cooperation with employers and work organizers.

SUBJECT LEARNING EFFECTS

relating to skills:

PEU_U01: is able to use basic tools to assess the usability in the paradigm of standard ISO 9241

PEU_U02: is able to diagnose and correct basic factors determining the level of ergonomic quality of a work station

PEU_U03: is able to apply selected methods to design an ergonomic workstation which is used for performing specific tasks and processes.

relating to social competences: PEU_K01: Acquisition and development of team collaboration skills in order to optimally solve assigned problems		
Project		Number of hours
Proj 1	Overview of the organizational issues. Presentation of the project goals and requirements. Discussion of the differences in conceptual and corrective ergonomics with examples of applications.	2
Proj 2	Presenting and discussing possible scenarios for performing ergonomic diagnosis.	4
Proj 3	Consultation with individual project teams on the choice of thematic area	2
Proj 4	Individual selection of diagnostic methods for teams.	4
Proj 5	Presentation of results of preliminary ergonomic evaluation.	4
Proj 6	Consultations with project teams: selection and application of supplementary ergonomic diagnostic methods on the basis of preliminary results	4
Proj 7	Consultations in design teams: discussion of proposals to introduce potential changes resulting from the analyses.	4
Proj 8	Consultations in design teams: verification and validation of the final version of the project.	2
Proj 9	Defense session of individual projects. Demonstration of the results obtained by individual teams in the form of presentation and written report.	4
	Total hours	30
TEACHING TOOLS USED		
N1. Shared teaching materials published on websites N2. Group work completed with the presentation of the results N3. Consultations		

EVALUATION OF SUBJECT LEARNING EFFECTS ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_U01 – PEU_U03, PEU_K01	Project realization and report preparation
F2	PEU_U01 – PEU_U03, PEU_K01	Presentation and defense of the project
$P=0.8 \cdot F1 + 0.2 \cdot F2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Koradecka D. [red.], Bezpieczeństwo pracy i ergonomia, Centralny Instytut Ochrony Pracy, Warszawa, 1999.		
[2] Kuliński M., Jach K., Koszela-Kulińska J., Metodyka doradztwa w zakresie ergonomii stanowisk pracy, Podręcznik ergonomiczny. Wielowymiarowy model wsparcia i identyfikacji kompetencji zawodowych. Zeszyt 4, Wojewódzki Urząd Pracy w Gdańsku, Gdańsk 2014		
[3] Tytyk E., Projektowanie ergonomiczne, Wydawnictwo Naukowe PWN, Warszawa, 2001.		
<u>SECONDARY LITERATURE:</u>		
[1] Artykuły z czasopism: Ergonomics, International Journal of Industrial Ergonomics, Applied Ergonomics, Human Factors		
[2] Materiały udostępnione na stronach http://ergonomia.ioz.pwr.wroc.pl , http://pl.wikipedia.org , http://en.wikipedia.org		
[3] Proctor R.W., Zandt T.V., Human factors in simple and complex systems, Needham Heights: Allyn and Bacon, 1994.		
[4] Salvendy, Gavriel (red), Handbook of Human Factors and Ergonomics, John Wiley & Sons, 2006.		
[5] Ziobro E., Ergonomia, Wydawnictwo Politechniki Wrocławskiej, Wrocław, 1989.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
dr hab. inż. Rafał Michalski, prof. uczelni, rafal.michalski@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Diagnoza przedsiębiorstwa pod kątem wdrażania innowacji
Name of subject in English: Diagnosis companies for the implementation of innovations
Main field of study (if applicable): Management
Specialization (if applicable): Business Management
Profile: academic
Level and form of studies: 1st , full-time
Kind of subject: optional
Subject code: W08ZZZ-SL0087P
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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge in the analysis of the organizational environment and methods for assessing a company's internal potential.

SUBJECT OBJECTIVES

The aim of the course is to familiarize participants with methods of diagnosing organizations with a view to implementing innovations. The participant will gain knowledge in the field of methods of analyzing the organizational environment and a balanced method of implementing innovative activities.

C1: Introduction to methods of macro and micro environment analysis.

C2. Improving skills of creative problem solving.

C3. To acquire skills of making decisions in the field of innovative activity on the basis of analysis of the organizational environment.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has a structured knowledge in the field of methods and tools of analyzing micro- and macro-organizational environment.

PEU_W02 Has knowledge on methods of generating ideas, being creative.

relating to skills:

PEU_U01 Be able to analyze an organization in terms of innovation implementation.

PEU_U02 Be able to use sustainable methods to introduce organizational change.

relating to social competences:

PEU_K01 Is prepared to initiate changes in the organization and to participate in their planning and implementation.

PROGRAM CONTENT		
Project		Number of hours
Proj 1	Presentation of the aim of the course, the course and the student assessment criteria. Discussion of individual tasks to be performed by the student.	2
Proj 2-3	Presentation of selected methods of organization diagnosis (methods of environment analysis: scenario method, swot analysis, Delphi method, panel of experts), internal potential (swot, key success factors, competitive profiles) and the balanced scorecard method. (Some issues are discussed by the trainer, some by the participants).	4
Proj 4-5	Consulting of substantive problems, assessment of students' advancement of work. Evaluation of proper selection of methods for evaluation of innovation potential of a company. Consulting how to prepare a project and its individual stages. Suggestions and proposals of changes in the project.	4
Proj 6-7	Presentation by students of the results of their project work (approx. 20 min) and discussion Presentation of types of innovations in a company and analysis of the influence of innovations on the company's results, assessment of opportunities and potential development of the company, part I	4
Proj 8-9	Presentation by students of the results of their project work (approx. 20 min) and discussion Presentation of types of innovations in a company and analysis of the influence of innovations on the company's results, assessment of opportunities and potential development of the company, Part II	4
Proj 10-11	Summary of classes: discussion of conclusions from the evaluation of written reports and students' presentations, part I	4
Proj 12-12	Summary of classes: discussion of conclusions from the evaluation of written reports and students' presentations, part II	4
Proj 14	Summary of classes: discussion of conclusions from the evaluation of written reports and students' presentations, part III	2
Proj 15	Presentation of the aim of the course, the course and the student assessment criteria. Discussion of individual tasks to be performed by the student.	2
	Total hours	30

TEACHING TOOLS USED
N1. Group work N2. Case studies N3. Activity N4. Presentation of project results N5. Student's own work

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_U01 PEU_U02, PEU_K01	Case study solution, group work
F2	PEU_W01, PEU_W02, PEU_U01 PEU_U02, PEU_K01	Presentation of the project results - report
F3	PEU_W01 PEU_W02, PEU_U01 PEU_U02, PEU_K01	Student activity and work
$F=0,3*P1+0,4*P2+0,3*P3$		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: 1. A. Dejnaka, A.Styś, Innowacje w Biznesie, Difin, Warszawa 2018 2. J. Perenc (Red.), Innowacje w rozwijaniu konkurencyjności firm- znaczenie, wsparcie, przykłady, zastosowania, Beck, Warszawa 2016 3. T. Kasińska, Innowacje w zarządzaniu. Nowe ujęcie, Beck, Warszawa 2018
SECONDARY LITERATURE: 1. J. Antoszkiewicz, Innowacje w firmie. Praktyczne metody wprowadzania zmian. Poltext, Warszawa 2008 2. R.Ryńca, Zrównoważona karta działania. Wyd. PWR, Wrocław 2009 3. K. Zopik- Depczyńska, I. Micuła, Innowacje i zarządzanie w XXI wieku, Wyd. Naukowe Sophia, Warszawa 2016
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Radosław Ryńca, radoslaw.rynca@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Dobry menedżer
Name of subject in English: Good manager
Main field of study (if applicable): Management
Specialization (if applicable): Business Management
Profile: academic
Level and form of studies: 1st level studies, full-time
Kind of subject: optional
Subject code: W08ZZZ-SL0115S
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)					1,2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS, AND OTHER COMPETENCES

none

SUBJECT OBJECTIVES

C1 Acquainting the student with the role, functions and tasks of the managerial staff
 C2. To acquaint the student with the basic managerial skills
 C3. Assessment and shaping (development) of selected managerial skills

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

P6U_W18_ Student has a basic knowledge of the regularities of organizational behavior and their determinants. She/he knows how to function in a team. She/he describes the concept of organizational culture and its importance in management. She/he knows the basic forms of communication in organizations

relating to skills:

PEU_U10_ Student can identify problems in the organization and propose effective methods for improving the organization and functioning of the enterprise

PEU_U11_Student can formulate and convey messages in a clear and direct manner. She/ he can appear in front of the camera. She/he knows how to prevent conflicts and use techniques of solving them.

relating to social competences:

PEU_K02 Student takes responsibility for performing assigned tasks

PROGRAMME CONTENT

	Seminar	Number of hours
Semin1	Organizational issues. Role, functions and tasks of the management staff	2
Semin2	Assertiveness in the manager's work. Theory and practice - part I	2
Semin3	Assertiveness in the manager's work. Theory and practice - part II	2
Semin4	Team conflict resolution	2
Semin5	Time management and work organization - introduction	2
Semin6	Planning the working time of a subordinate team	2
Semin7	Motivating employees - material motivators (case study)	2
Semin8	Motivating employees - intangible motivators (case study)	2
Semin9	The art of presentation	2
Semin10	Speeches in front of the camera, part I (recordings)	2
Semin11	Speeches in front of the camera, part II (recordings)	2
Semin12	Speeches in front of the camera, part III (overview)	2
Semin13	Group project - presentations	2
Semin14	Group project - presentations	2
Semin15	Feedback, summary of the classes/ Final test	2
	Total hours	30

TEACHING TOOLS USED

N1. case study

N2. group work completed with an oral presentation of the results

N3. discussion

N4. 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
F1	PEU_W18 PEU_U10 PEU_U11 PEU_K02	Presentation of the implemented / planned team project
F2	P6U_W18	Final test
$P = F1 * 0,8 + F2 * 0,2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Carmine G., Jobs S. (2018), Sztuka prezentacji. Jak świetnie wypaść przed każdą publicznością, Znak, Kraków. [2] Griffin, R. W. (2020), Podstawy zarządzania w organizacjach, PWN, Warszawa. [3] Prasolek, Ł. (2018), Zarządzanie czasem pracy przez menedżerów. Planowanie i rozliczanie czasu pracy zespołu, Księgarnia Beck, Warszawa
<u>SECONDARY LITERATURE:</u> [1] Drucker, P. (2017), Menedżer skuteczny, Wydawnictwo MT Biznes, Warszawa. [2] Oczkoś, M. (2010), Paszczodźwięki. Mały poradnik dla wielkich mówców, Wydawnictwo RM, Warszawa. [3] Morgan, N. (2008), Wystąpienia publiczne. Osobisty mentor - Harvard Business School Press, OnePress.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Anna Brdulak, anna.brdulak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Doskonalenie funkcji personalnej w organizacji****Name in English: Improving the personnel function within the organization****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0159P****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)				125	
Form of crediting				Crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES*Educational effects in Personnel Management.***SUBJECT OBJECTIVES****C1:** *Allowing students to directly learn principles and instruments that are actually used in given organisations (case studies) in particular areas of personnel management.***C2:** *Creating conditions allowing students to acquire abilities and identify weak and strong points of the HR process and to design its improvement, taking into account innovative instruments of personnel management.***C3:** *Making students aware of the inevitability of introduction of changes to the ways of fulfilling the personnel function and the necessity to develop their knowledge in the scope of personnel management on their own.***C4:** *Offering students an opportunity to present an offer of performance, and later results of their diagnostic and design works in simulated conditions of the acceptance of the expert appraisals assigned by particular entities.*

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU_W01: Student possesses basic knowledge of practical problems occurring in the practice of personnel management and of the ways of diagnosing and solving problems.

Relating to skills:

PEU_U01: Student is able to select sources of information and use selected techniques for gaining and processing information (interview, survey, documentation) for the purpose of identification and improvement of the personnel management process.

PEU_U02: Student is able to identify determine the causes of dysfunction and indicate factors affecting the efficiency of the performance of particular elements of the personnel function.

PEU_U03: Student is able to formulate alternative solutions of typical management and substantive problems in the area of personnel management. Student is able to justify, select and verify the application of new instruments and principles in compliance with the priorities set by the managerial staff, employees and the HR Department.

PEU_U04: Student is able to prepare an expert appraisal in the form of a written report in Polish.

PEU_U05: Student is able to present the results of diagnostic research and proposed design solutions and to defend them before a group of 'experts'.

Relating to social competences:

PEU_K01: Student is able to update knowledge - he/she knows key authors, directions and tendencies of development of knowledge of personnel management.

PEU_K02: Student is prepared to take responsibility for diagnostic and design tasks assigned to him/her and to bear responsibility for meeting the deadline and substantive correctness of the performance of tasks.

PROGRAMME CONTENT

Form of classes - project		Number of hours
Pr1	Presentation of the purpose of classes, their course and criteria of student evaluation. Discussing particular assignments for the student.	2
Pr2; Pr3	Consulting the scope and manner of performance of diagnostic research related to the evaluation of procedures and instruments applied with regard to human resources recruitment, periodic employee assessment, remuneration of employees and shaping of their development. Discussing the principles of the selection of the scope and manner of preparation of the document " DESIGN WORK OFFER ". Discussing the content of particular subchapters of Part 1 of the written report documenting the results of diagnostic works. Answering students' questions.	4
Pr4; Pr5	First plenary session: presentation by students of initial results of their diagnostic research (presentation time: 7-10 minutes), including: - identification of manners of operation in the field of human resources in the scope of: instruments and principles of remuneration, procedure for human resources recruitment, employee assessment, shaping of the employees' professional development - conclusions related to the assessment of the formal situation related to the knowledge in the scope of personnel management. Discussion and consultations related to the selection of areas and problems that might be the subject of a thorough analysis and designing of improvements.	4

Pr6	Second plenary session: Short presentations (5 minutes) of students - 'experts' submitting an offer for the performance of design work for a particular enterprise. Obligatory structure of the offer: names and surnames of contractors, addressee (name of the enterprise to which the offer is directed), title of the proposed paper, declared thematic scope (indication of assignment numbers in the assignment structure related to of personnel management - Annexe No. 1), substantive scope of the project (specification of project elements to be performed) and its justification, expected benefits for the enterprise and employees. To the offer there should be enclosed an initial version of the first part of the report entitled "Diagnosis of selected elements of personnel management". Purpose of the presentation: convincing participants of the purposefulness of the performance of the expert appraisal. Indication by the lecturer of issues and problems requiring a detailed diagnosis and focusing the student's attention to innovative instruments that may be applied in the enterprise analysed.	2
Pr7	Giving back to students and commenting on initial versions of Part 1 of reports with remarks of the lecturer. Discussing basic formal and substantive defects of the papers subject to consultation. Answering students' detailed questions related to their papers and the content and manner of preparation of Part 2 of the report.	2
Pr8; Pr9	Consultations related to substantive problems, assessment of the advancement of students' work. Discussing the information gathered by students, describing the existing situation and consultations related to the manner of preparation of Chapter 2 of the project	4
Pr10 – Pr.13	Third plenary session: students' presentation of the results of their design work (ca. 20 minutes) and discussion: answering the lecturer's questions by other students playing the role of the recipient of the design work on behalf of the ordering party, authors' defence of the design solutions proposed by them. (ca. 20 minutes).	8
Pr14	Test	2
Pr.15	Summing up classes: discussing conclusions related to the assessment of written reports and students' presentations - indication of good and bad points.	2
	Total hours	

TEACHING TOOLS USED	
N1. Auxiliary materials: Detailed, exemplary structure of the report and examples of design works and examples of offers of performance of design work N2. Field research in the selected organisation - scenario interviews, documentation analysis, surveys. N3. Simulation of the offer contest - students' presentations (5 minutes) - audiovisual media (slides, computer projector) N4. Group consultations with the lecturer. N5. Written report - case studies N6. Simulation of the acceptance of the design work - students' presentation of the final reports - audiovisual media (slides, computer projector) N7. Discussion N8. Student's own work N9. Test	

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_U05	Presentation at the 1st session; 5 credits, criteria: completeness, substantive values
F2	PEU_U01; PEU_U02; PEU_U04; PEU_U05;	„Expert Offer” (essential content, the method of accomplishment, the method of editing, presentation on the first session: max 10 credits Presentation at the 2nd session; criteria: completeness, substantive values and communicativeness.max. 5 credits,
F3	PEU_U01; PEU_U02; PEU_U03; PEU_U05	Final presentation at the 3rd session; criteria: project substantive value, communicativeness, quality of slides. Max .20 credits,
F4	PEU_U01; PEU_U02; PEU_U03; PEU_U04; PEU_K1	Written Report 0 to 50 credits The resulting report, written by the students, shall have the following structure: 1. Diagnosis of the selected elements of personnel management (max 10 pages , A-4, font 12, space 1,5) (max 25 credits) 1.1. Organisational and legal form of operation, sphere of activity, organisational structure of the analysed object (max. 2 pages; 3 credits) 1.2. Synthetic evaluation (advantages and disadvantages) of human resources and methods of action within personnel circle (max. 5 pp. 15 credits): a) Employment capacity and structure b) Instruments and principles of remunerating c) Personnel selection procedure for the specialist and managerial posts d) Periodical assessment of employees e) Shaping the professional development of the employees f) Other significant issues or conditionings and barriers in human resources management. g) Conclusions – evaluation of the factual situation 1.3. Evaluation of the factual situation in the selected organisational unit. (max 3 pages, 10 credits): a) Opinion of the manager of the selected organisational unit (scenario interview) (max 2 credits); b) Opinion of employees of the unit analysed (survey and analysis of results) (max 4 credits); c) Conclusions: advantages and disadvantages (max.4 credits) 2. Project of specific solutions of elements selected from paragraph 1. (max 9 pages, A-4, font 12, space 1,5) (max 25 credits) 2.1. Suggested solution project (max 7, 15 credits) 2.2. Opinions of the HR Department on the designed solution - survey or scenario interviews (max. 1 pages. Max 5 credits) 2.3. Manager's opinion on the designed solution (max. 1 pages max 5 credits)
F5	PEU_U02; PEU_U03; PEU_K02	Activity and the quality of cooperation with the lecturer/supervisor (authors' individuality, the level of consulted issues, attendance, participation in the plenary discussion) 0 - 10 credits.
P= F1+F2+F3+F4+F5 Failed .=< 50 cred. Satisfactory. 51 - 59 cred.. Satisfactory + 60 - 67 cred. Good. 68 - 77 cred. Good.+ 78 - 85 cred. Very good 86 - 95 cred.. Excellent > 95 cred..		

	Presentation 1	Expert Offer	Presentation 2	Presentation 3	Report						Activity	Amount	Threshold Assessment
					1.1	1.2	1.3	2.1	2.2	2.3			
PEU_U01	3	2		2	2	3	4		3	3		22	6,6
PEU_U02		5		5		7	4				2	23	6,9
PEU_U03				5				9			2	16	4,8
PEU_U04		3			1	2	2	3	2	2		15	4,5
PEU_U05	2		5	8								15	4,5
PEU_K01								3				3	0,9
PEU_K02											6	6	1,8
Razem	5	10	5	20	3	12	10	15	5	5	10	100	

PEU_W01 - It can not be assessed separately , but is obtained as a summary , of all PEU of skills

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. *Materiały do wykładu zarządzanie personelem*
2. *Tadeusz Listwan (pod redakcją)., Zarządzanie kadrami podstawy teoretyczne i ćwiczenia. Wyd. Akademii Ekonomicznej we Wrocławiu 2000 r.*
3. *Henryk Król, Antoni Ludwiczynski (pod redakcją), Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji. PWN, 2006.*

SECONDARY LITERATURE:

1. *Oleksyn T. Zarządzanie kompetencjami Teoria i praktyka Wyd. Oficyna Ekonomiczna Kraków 2006 r.*
2. *Filipowicz G., Zarządzanie kompetencjami zawodowymi, Warszawa, Polskie Wydawnictwo Ekonomiczne, 2004 r.*

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: Doskonalenie systemów informacyjnych organizacji
Name of subject in English: Improvement of organizational information systems
Main field of study (if applicable): Management
Specialization (if applicable): Business Management
Profile: academic
Level and form of studies: 1st level, full-time
Kind of subject: optional
Subject code: W08ZZZ-SL0160P
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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Student is capable to implement a simple relational database system and acquire ad hoc information by defining from a relational data base search processes using a query language.
2. Student knows a methodology of management information systems identification and analysis and capable to apply it.

SUBJECT OBJECTIVES

C1 An application of the student's general knowledge from the area of the data processing technology and management information systems analysis in practice, confrontation of theoretical foundations with practice.

C2 Verification of the student's skills of the management information system current state identification and assessment and of the determining directions of the management information system improvements by means of computer systems.

C3 To acquire social competences specific for the activity of the management information systems improvement.

SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU_U01 Capable to apply in practice theoretical and methodological solutions in management information systems diagnostics.

PEU_U02 Capable to apply in practice theoretical and methodological solutions in the management information systems computerization.

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 management information systems diagnostics and improvement.

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 information systems diagnostics and improvement.

Project		Number of hours
Proj 1	Organizational issues. Introduction - determining of the project goals and requirements to the project documentation. Project tasks review.	1
Proj 2	Consultations on the extend and the way of the organization information system diagnostics investigation in the organizational function hierarchy perspective.	2
Proj 3	Consultations on the extend and the way of the organization information system diagnostics investigation in the organizational entity relationship perspective.	2
Proj 4	Consultations on the extend and the way of the organization information system diagnostics investigation in the data flow model perspective and the assessment of the existing information system implementation.	2
Proj 5	Consultations on the extend and the way of the organization information system diagnostics investigation in the analysis of the information requirements fulfilling by the existing information system.	2
Proj 6	Plenary session. Presentation, analysis and assessment of the project problems proposed by project teams.	5
Proj 7	Consultations on the theoretical and methodological problems connected with the database application design solution elaboration (determining the information and functional requirements, determining the non-functional requirements to the data base application).	2
Proj 8	Consultations on the theoretical and methodological problems connected with the database application design solution elaboration (data base application architecture design).	2
Proj 9	Consultations on the theoretical and methodological problems connected with the database application design solution elaboration (data base design).	2
Proj 10	Consultations on the theoretical and methodological problems connected with the database application design solution elaboration (forms and reports design, menu design).	2
Proj 11	Plenary session. Presentation, analysis and assessment of the project solutions proposed by the project teams.	6
Proj 12	Summary and credit.	2
Total hours		30

TEACHING TOOLS USED	
N1. Consultations	
N2. Team work	
N3. Software capable to prepare the design documentation and the computer application	
N4. Presentations during plenary sessions, discussions, defense of own solutions	
N5. Written report	

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	Scoring of the „Project problem application” (max. 5 pts.) and its presentation during the first plenary session (max. 10 pts.)
F2	PEU_U02	Scoring of the „Written report” (max. 50 pts.), quality of the design defense (max. 20 pts.)
F3	PEU_U01, PEU_U02, PEU_K01, PEU_K02	Scoring an author’s independence, her/his maturity in the area under consideration, attendance, participation in discussions (max. 15 pts.)
$P(\text{project})=0,15 \cdot F1+0,7 \cdot F2+0,15 \cdot F3$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Barker R., Longman C. “Case Method: Function and Process Modelling”, Pearson Education Limited, 1992.
- [2] Barker R. “Case Method: Entity Relationship Modelling”, Pearson Education Limited, 1990.
- [3] Ullmann J. Widom J. „A First Course in database systems”, 3rd edition, Pearson 2007.

SECONDARY LITERATURE:

- [1] Flanczewski S., „ACCESS w biurze i nie tylko”. Helion, 2007

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Lamek, anna.lamek@pwr.edu.pl

Grażyna Hołodnik-Janczura, grazyna.holodnik-janczura@pwr.edu.pl

31.05.2022

Załącznik nr 5 do ZW 16/2020

FACULTY MANAGEMENT					
SUBJECT CARD					
Name in Polish: Doskonalenie systemów zarządzania jakością					
Name in English: Improvement of quality management systems					
Main field of study (if applicable): Management					
Specialization (if applicable): Business Management					
Level and form of studies: 1st level, full-time					
Kind of subject: optional					
Subject code: W08ZZZ-SL0158P					
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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES
Basics knowledge of quality management

SUBJECT OBJECTIVES
C1. Acquisition of skills to identify and analyze problems related to the functioning of the quality management system in real organizations.
C2. Acquisition of skills for practical using the acquired knowledge in the field of quality management to design solutions that improve the functioning quality management system in selected organizations.
SUBJECT EDUCATIONAL EFFECTS
relating to skills:
PEU_U01 – Student is able diagnose the actual quality management system in a real organization and identify the possibilities of its improvement.
relating to social competences:
PEU_K01 – Student acts ethically.
PEU_K02 – Student is responsible for the assigned tasks.
PEU_K03 – Student can work in a team.

31.05.2022

Form of classes - project		Number of hours
Proj1	Presentation of goals and the scenario of classes. Discussion of the main thematic areas of the proposed diagnostic and design works; proposing a detailed substantive scope of these works.	2
Proj2	Presentation of the proposed methodology of diagnostic and design works. Discussing the structure of the written report and the rules for its editing.	2
Proj3	Declares by students for particular topics (after they have previously identified the demand from enterprises for the implementation of a specific project).	2
Proj4	Presentation of the research plan and plan of the written report by each project team.	2
Proj5	Consultation of the 1-st stage of the project according to the established schedule by the project teams.	2
Proj6	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj7	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj8	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj9	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj10	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj11	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj12	Consultation of the subsequent stage of the project according to the established schedule by the project teams, cont.	2
Proj13	The final presentation of the whole project by individual teams.	2
Proj14	The final presentation of the whole project by individual teams, con	2
Proj15	Summary of research. Final acceptance and substantive evaluation of submitted projects.	2
Total hours		30

TEACHING TOOLS USED

N1. Self-research in an organisation.
 N2. Project development.
 N3. Team work
 N4. Discussion.

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_K01	Assessment of project.
F2	PEU_K03	Assessment of group work.
F3	PEU_K02	Assessment of timely delivery of the project.
F4	PEU_U01	Assessment of the presentation.
P= 0,6*F1+0,1*F2+0,1*F3+0,2*F4		

PRIMARY AND SECONDARY LITERATURE	
PRIMARY LITERATURE:	
[1]	Materials published on the course website an Eportal.
[2]	Dobrowolska A., <i>Podejście procesowe w organizacjach zarządzanych przez jakość</i> , Poltext, Warszawa 2017.
[3]	Hamrol A., <i>Zarządzanie jakością z przykładami</i> , Wydawnictwo Naukowe PWN, Warszawa 2012.
[4]	Norma ISO 9004:2018, <i>Quality management — Quality of an organization — Guidance to achieve sustained success</i> , ISO, 2018.
SECONDARY LITERATURE:	
[1]	Brajer-Marczak R., <i>Doskonalenie zarządzania jakością procesów i produktów w organizacjach</i> , Wyd. Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2015.
[2]	Grudowski P.: <i>Projektowanie, nadzorowanie i doskonalenie systemu jakości według normy PN-EN ISO 9001:2009 w oparciu o podejście procesowe z uwzględnieniem specyfiki sektora MŚP</i> , Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 2010.
[3]	Grudowski P., Leseure- Zajkowska E.: <i>LSS Plutus - Lean Six Sigma dla małych i średnich przedsiębiorstw</i> , Wydawnictwo WNT, Warszawa 2013.
[4]	Hamrol A., Mantura W.: <i>Zarządzanie jakością, teoria i praktyka</i> . Wydawnictwo Naukowe PWN, Warszawa 2011.
[5]	Łuczak J., Matuszak-Flejszman A., <i>Metody i techniki zarządzania jakością</i> , Quality Progress®, Poznań, 2007.
[6]	Norma PN-EN ISO 9000:2015, <i>System zarządzania jakością. Podstawy i terminologia</i> . Polski Komitet Normalizacyjny, Warszawa 2016.
[7]	Norma PN-EN ISO 9001:2015-10, <i>System zarządzania jakością. Wymagania</i> . Polski Komitet Normalizacyjny, Warszawa 2016.
[8]	Szczepańska K., <i>Metody i techniki TQM</i> , Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2009.
[9]	Thompson J.R., Koronacki J., Niekuła J.: <i>Techniki zarządzania jakością, od Shewharta do metody „Six Sigma”</i> . Akademicka Oficyna Wydawnicza Elit, Warszawa 2005.
[10]	Wybrane artykuły z czasopism naukowych: „Problemy Jakości”, „Zarządzanie jakością”.
[11]	Zymonik Z., Hamrol A., Grudowski P., <i>Zarządzanie jakością i bezpieczeństwem</i> , PWE, Warszawa 2012.
[12]	Zymonik Z., <i>Koszty jakości w zarządzaniu przedsiębiorstwem</i> , Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2003.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Anna Dobrowolska, anna.dobrowolska@pwr.edu.pl	

Z komentarzem [MK1]: Liczba pozycji różna od tej w karcie w j. polskim; proszę ograniczyć liczbę pozycji literatury podstawowej do maksymalnie 3.

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: E-biznes****Name of subject in English: E-business****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0130****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)	25				50
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)	0,6				1,2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about management and ICT.

SUBJECT OBJECTIVES

C1 To get knowledge about business in the Internet (economic conditions, specifics of the activity).

C2 Preparing students for using e-business solutions in organizations (technical, economic and legal aspects).

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 Has the knowledge concerning the possibilities of ICT use in business.

PEU_W02 Has knowledge concerning economic, technical and legal conditions of e-business.

relating to skills:

PEU_U01 Can evaluate the suitability of proposed solutions for particular organization.

PEU_U02 Can reach appropriable information on his/her own.

relating to social competences:

PEU_K01 Can think in entrepreneurial way. PEU_K02 Can present own point of view.		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Presentation of the subject, requirements and rules of credit receiving. Internet – core information.	1
Lec 2	e-business – history, strategies and models.	2
Lec 3	Rules of conducting business activity in the Internet. Data exchange and storing.	2
Lec 4	E-commerce on the B2C and C2C markets.	2
Lec 5	Technologies in e-business: EDI, RFID, etc.	
Lec 6	E-commerce on the B2B market.	2
Lec 7	Image of the company in the Internet. Test	2
Lec 8	Opportunities and threats concerning e-business. A future of e-business – the development directions. Retake.	2
	Total hours	15
Seminar		Number of hours
Sem1	Presentation of subject, requirements and rules of credit obtaining. The choice of topics.	1
Sem2	Domains, hosting, websites	
Sem3	Legal regulations in the e-business.	2
Sem4	e-business trading platforms (elements).	2
Sem5	e-business trading platforms (tools, technologies, etc.).	2
Sem6	Security in the e-business.	2
Sem7	e-payments, e-banking, e-insurances.	2
Sem8	e-business – links with production and logistic. Industry 4.0.	2
Sem9	e-working, e-services.	2
Sem10	e-marketing.	2
Sem11	Social media in business.	2
Sem12	Digital product.	2
Sem13	New technologies in the e-business (virtual reality, IoT, etc.).	2
Sem14	Effectiveness of web project (web analytics).	2
Sem15	Summary and crediting.	2
	Total hours	30
TEACHING TOOLS USED		
N1. Traditional lecture with presentation and videos. N2. Unassisted work – seminar N3. Multimedia presentation. N4. 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
F1	W01,W02	test
F2	W01, W02, C01, C02, K01, K02	activity during the seminar
F3	W01, W02, C01, C02, K01, K02	presentations during the seminar
P(lecture) = F1 P(seminar) = 0,2*F2+0,8*F3		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Biblia e-biznesu 3.0, Dutko M. (red.), Onepress, Gliwice 2021.		
[2] Chaffey D.: Digital Business and e-Commerce Management: Strategy, Implementation and Practice. PWN, Warszawa 2022.		
[3] Raporty (Społeczeństwo informacyjne, e-commerce w Polsce itp.)		
<u>SECONDARY LITERATURE:</u>		
[1] Doligalski T. : Modele biznesu w Internecie. Teoria i studia przypadków polskich firm, Wydawnictwo Naukowe PWN, Warszawa 2014.		
[2] Hipsz T.: Firma w Internecie. Poradnik subiektywny, One Press, Helion, Gliwice 2013.		
[3] Skorupska J.: E-commerce. Strategia, Zarządzanie, Finanse, Wydawnictwo Naukowe PWN, Warszawa 2017.		
[4] Żurak-Owczarek C.: Technologie informacyjne determinantą współczesnego biznesu, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2011.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Ewa Pralat, ewa.pralat@pwr.edu.pl		
Grzegorz Chodak, grzegorz.chodak@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Efektywna praca w zespole**Name of subject in English:** Effective teamwork**Main field of study (if applicable):** Management**Specialization (if applicable):** Business management**Profile:** academic**Level and form of studies:** 1st/full time studies**Kind of subject:** optional**Subject code:** W08ZZZ-SL0109S**Group of courses:** NO**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. none

	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 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)					1,2

*delete as applicable

SUBJECT OBJECTIVES

C1 Knowing proper teamwork rules

C2 Acquiring teamwork skills

C3 Acquisition of competence to take responsibility for teamwork result

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 he has a basic knowledge of the regularities of team members' behavior and their conditions. He knows the rules of building and functioning teams and the factors influencing their efficiency.

relating to skills:

PEU_U02 He is able to identify, interpret and evaluate the behavior of team members and use typical techniques of influencing these behaviors.

relating to social competencies:

PEU_K01 he is able to cooperate and work in group and team forms of work organization (assuming different roles in them). He is able to organize and manage the work of small teams.

PROGRAM CONTENT		
Seminar		Number of hours
Se1	Group definitions, stages of group forming. Presentation of the purpose of seminar and criteria of student evaluation.	2
Se2	Getting to know each other in the group - integration exercise	2
Se3	Building a group identity	2
Se4	The main themes of social behavior: competition, cooperation and altruism	2
Se5	Principles of proper teamwork	2
Se6	Person in the group - opportunities and risks for the individual behavior	2
Se7	Groupthink syndrome	2
Se8	Searching for own place in the group	2
Se9	Role-playing in a group; advantages and disadvantages of group roles	2
Se10	Difficult situations in the group, Us and Them - group antagonisms	2
Se11	The division into teams, the choice of issues team project	2
Se12	Work on the team project	2
Se13	Work on the team project - continuation	2
Se14	Work on the team project - continuation	2
Se15	Team project presentation	2
	Total hours	30

TEACHING TOOLS USED
N1. multimedia presentation N2. individual exercise N3. Team 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_U01, PEU_K01	Group task
F2	PEU_W01, PEU_U01, PEU_K01	Individual task
F3	PEU_W01, PEU_U01, PEU_K01	Activity during classes and discussions
$P = F1*0.4 + F2*0.4 + F3*0.2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Brown, R. (2006). <i>Procesy grupowe. Dynamika wewnątrzgrupowa i międzygrupowa</i> . Gdańsk: GWP [2] Robson, M. (2005). <i>Grupowe rozwiązywanie problemów</i> . Warszawa: PWE <u>SECONDARY LITERATURE:</u> [1] Kożusznik, B. (2005). <i>Wpływ społeczny w organizacji</i> . Warszawa: PWE [2] Belbin, M. (2008). <i>Twoja rola w zespole</i> . Gdańsk: GWP
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) Beata Bajcar, beata.bajcar@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Efektywne wykorzystanie Internetu w biznesie****Name of subject in English: Effective techniques of using internet in business****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0129****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)	25	50			
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)	0,6	1,2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

none

SUBJECT OBJECTIVES

C1 Familiarize students with advanced methods of use of the Internet in business.

C2 Presenting students with significant from the point of view of business data on electronic commerce

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 The student has knowledge in the construction and application of web-based information tools in different functional areas of the organization.

PEU_W02 The student understands basic methods, techniques and tools for solving managerial problems in the area of internet information systems.

PEU_W03 The student knows the basic models and processes of enterprise management using the Internet.

Relating to skills:

PEU_U01 The student is able to select sources of information, based on data on the Internet

and use them to solve management problems in the organization		
Relating to social competence: PEU_K01 the student is aware of the importance of effective business management with the use of Internet tools in the practice of organizations and also the use of such tools in the economy and in everyday life		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	History of Internet and e-commerce - basic concepts	1
Lec 2	Hosting – classification, functions in business	2
Lec 3	E-commerce and e-business – classification, characterization, Online stores, classification, statistics, most common solutions	2
Lec 4	Management of online store, advances functionalities of online store	2
Lec 5	Innovative logistics solutions	2
Lec 6	Methods of internet sales SEO, SEM	2
Lec 7	Google AdWords, Google Merchant	2
Lec 8	Completion of the course - assessment of prepared web service	2
	Total hours	15
Classes		Number of hours
Cl 1	Economical aspects of Internet use in business, partner programs	2
Cl 2	Innovative marketing communication methods – YouTube, Instagram	2
Cl 3	App online stores case studies	2
Cl 4	Commercial aspects of Social Media – case studies	2
Cl 5	Google AdSense, value added of website	2
Cl 6	Recommendation systems	2
Cl 7	Hosting – classification, functions in business – case studies	2
Cl 8	Internet domains and DNS servers, Internet domains in the context of SEO, how to get and register proper internet domain	2
Cl 9	Web traffic monitoring, Google Analytics	2
Cl 10	Cryptocurrencies, Bitcoin, methods of electronic payments	2
Cl 11	Web 3.0, Intelligent Internet	2
Cl 12	Price comparison services – functionalities and methods of integration with online store	2
Cl 13	SaaS model – case studies	2
Cl 14	Virtual Reality in e-commerce	2
Cl 15	Crowdfunding, crowdsourcing	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture		
N2. Multimedia presentations		
N3. The online database of information and knowledge.		

N4. Case studies

N5. 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 –W03 PEU_K01	Creation and presentation of commercial website with SEO elements
F2	PEU_W01 PEU_U01	Activity
F3	PEU_W02	Case study analysis
F4	PEU_W03 PEU_U01	Presentation
F5	PEU_W01 PEU_K01	Paper report
P (lecture) = F1 P (classes) = F2*0.1+F2*0.1+F3*0.4+F4*0.4		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Stone, B., 2013. *The everything store: Jeff Bezos and the age of Amazon*. Random House.
- [2] Kotler, P., Kartajaya, H., & Setiawan, I. (2016). *Marketing 4.0: Moving from traditional to digital*. John Wiley & Sons.
- [3] Tkaczyk J., 2010, Zachowania konsumenckie w środowisku wirtualnym (on-line), w. S. Pilarski, M. Awdziej, M. Czaplicka, J. Tkaczyk, K. Zięba, Klient i Marketing, UWM, Olsztyn

SECONDARY LITERATURE:

- [1] Chodak, G., 2014. *Wybrane zagadnienia logistyki w sklepach internetowych:-modele, badania rynku*. Oficyna Wydawnicza Politechniki Wrocławskiej.
- [2] Kołodziejczyk W., 2010, Dropshipping (nie tylko dla e-biznesu) w: Szoltysek J., Jedliński, M. (red.) M. 2010, Logistyka – współczesne wyzwania, Wałbrzych, Wydawnictwo PWSZ Wałbrzych.
- [3] Chodak, G., 2020. The problem of shelf-warmers in electronic commerce: a proposed solution. *Information Systems and e-Business Management*, 18(2), 259-280.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Grzegorz Chodak, grzegorz.chodak@pwr.edu.pl,

Ewa Prałat ewa.pralat@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Ekologiczny menedżer****Name of subject in English: Ecological manager****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0143****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)	0,6			1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of business management
2. Basic knowledge of marketing

SUBJECT OBJECTIVES

- C1 To know the principles of functioning of the environmental management system in enterprises.
 C2 To learn about and quantify the impact of business activities on the environment at each stage of the product/service life cycle.
 C3 To learn about eco-marketing.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

- PEU_W01 can explain the essence and difference characterizing the ecological life cycle of a product or service.
 PEU_W02 can explain the essence and difference characterizing methods, techniques and tools of eco-marketing.

relating to skills:

- PEU_U01 Knows how to calculate the environmental footprint for an adopted enterprise in practice.

PEU_U02 Knows how to perform a mini environmental audit for a company adopted in practice. relating to social competences: PEU_K01 is aware of the mechanisms determining the impact of a given project on the environment. PEU_K02 Is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Organizational issues- discussion of the rules of passing. Review of definitions and characteristics of basic environmental terms.	1
Lec 2	Presentation of the state of environment quality in the world and in Poland as a result of anthropogenic influence.	2
Lec 3	Legal and economic conditions of pro-ecological behaviour in an enterprise.	2
Lec 4	The concept of ecological company management versus traditional methods.	2
Lec 5	Formalised and non-formalised systems of environmental management.	2
Lec 6	Ecological marketing in a company. Ecoproduct, Eco-labelling.	2
Lec 7	Footprinting, i.e. measuring the footprint left on the environment by a given business activity or product. Measuring methods on the examples of specific companies.	2
Lec 8	Procedures and methods of eco-auditing. Eco-audit. Final test.	2
	Total hours	15

Project		Number of hours
Proj 1	An ecological view of business operations	2
Proj 2	An ecological interpretation of the product life cycle based on articles from the business press.	2
Proj 3	Pro-environmental management methods and systems in a company. Type classification.	2
Proj 4	Ecological and economic effects of pro-environmental company management on the basis of business press articles.	2
Proj 5	Presentation of an algorithm for minimising pollution in an enterprise for an analysed enterprise.	2
Proj 6	Presentation of an identification matrix of environmental asPEUts in the analysed organisation.	2
Proj 7	Characterisation of the environmental objectives and tasks in the analysed organisation, together with their respective weights.	2
Proj 8	Identification of all environmental factors at each stage of the product life cycle occurring in the company under analysis and an attempt to measure them	2
Proj 9	Characteristics of eco-marketing in the enterprise under analysis	2
Proj 10	Comparison of the environmental impact of the company within the framework of existing environmental standards. Mini eco-audit.	2
Proj 11	Calculation of own measurement of the ecological footprint together with a statement of our share on the Earth	2
Proj 12	Presentation of projects relating to the calculation of the environmental footprint of the enterprise in question. Discussions.	2
Proj 13	Presentations of projects related to calculating the environmental footprint of a particular	2

	company. Discussions.	
Proj 14	Presentation of projects related to the calculation of the environmental footprint of a given company. Discussions.	2
Proj 15	Summary and reception of the project work.	2
	Total hours	30

TEACHING TOOLS USED	
N1. Problem lecture with the use of a multimedia presentation. N2. Group work. N3. Activity. N4. Participation in the 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_W01;PEU_W02	Final test
F2	PEU_W01;PEU_U01;PEU_U02	Project preparation - presentation and report
F3	PEU_W02; PEU_K01; PEU_K02	Comments on current environmental problems in business management.
F4	PEU_W01;PEU_U01; PEU_U02	Evaluation of activity and attendance
P (lecture)=F1 P (project)= F2*0,5+F4*0,3+F4*0,2		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Niemiec W., Aspekty zarządzania środowiskiem w praktyce inżynierskiej, Oficyna Wydawnicza Politechniki Rzeszowskiej, 2013 [2] Podskrobko B., Podskrobko T., Zarządzanie środowiskiem Polsce, PWE Warszawa 2012, [3] Kania A., Nowosielski R., Spilka M., Zarządzanie środowiskowe i systemy zarządzania środowiskowego, Politechnika Śląska 2010.	
<u>SECONDARY LITERATURE:</u>	
[1] Cieciora M., Czaja-Cieszyńska H., i inni. Rachunek kosztów w ochronie środowiska, CeDeWu, 2010, [2] Ledwoń K., Ekologiczne podstawy kształtowania technosfery, PWN Warszawa-Wrocław 1998, [3] Aimé F Caekelbergh, Zintegrowane zarządzanie środowiskiem: systemowe zależności między polityką, prawem, zarządzaniem i techniką, Wolters Kluwer Polska SA: Akademia Polonijna 2013	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr inż. Małgorzata Pol, malgorzata.pol@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Ekonomiczne uwarunkowania rozwoju przedsiębiorstwa na rynku UE

Name of subject in English: Economic conditions of the development of enterprises in the EU market

Main field of study (if applicable): Management

Specialization (if applicable): Business Management

Profile: academic

Level and form of studies: 1st , full-time

Kind of subject: optional

Subject code: W08ZZZ-SL0161P

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)				125	
Form of crediting				Crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of micro and macroeconomics and basic skills in economic and financial analysis of a business.
2. knowledge of the legal forms of conducting business activity in Poland

SUBJECT OBJECTIVES

C1 To broaden knowledge of methods, techniques and tools for solving selected managerial problems

C2 Acquisition of knowledge and skills to identify the conditions for running and developing an enterprise resulting from integration processes.

C3 Develop the skills to prepare an expert opinion in draft form.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 Knows selected methods, techniques and tools to solve managerial problems related to entering new markets.

PEU_W02 The student has basic knowledge about doing business in the European Union.

relating to skills: PEU_U01 can independently use a variety of Polish and foreign sources of information, in particular the professional literature. Is able to integrate the obtained information and apply it in order to solve a specific managerial problem of the type (strategy of entering a foreign market, continuation of activity, etc.) PEU_U02 can inform (orally and in writing), participate in discussions, and present opinions. PEU_U03 He/she is able to develop elements of a strategy for entering a selected international market or design its improvement, or propose actions to adapt a selected functional area in a company to EU conditions.. relating to social competences: PEU_K01 is prepared to initiate changes in the workplace and participate in their planning and implementation. Is able to think and act in an entrepreneurial manner.

Form of Project		Number of hours
Pr1	Presentation of objectives and activities of the scenario. Discussion of the various thematic areas of diagnostic and design work	2
Pr2	Presentation of the proposed methodology for the design and diagnostic work. A detailed discussion of the structure and principles of a written report on its editing.	2
Pr3	Consultation with individual project teams working with business rules and selection of the subject area.	2
Pr4	Consultation with the objectives and scope of work of the individual teams and the preparation of the project.	2
Pr5	The first plenary session. The meeting will be attended by all students who submit, in leading, before the start of the course, "The structure of the project." It be in writing (max 1 page A-4 font 12 spacing 1.5). Compulsory project structure: name performers, the name of the company for which the project is executed, the title of the proposed project, the purpose of substantive and its justification, the stages of research and their goals, and reference. At the plenary session, each team will present their proposed structure of the project (time: 5 minutes) and answer questions from other participants. Purpose of presentation: the belief of the students about the purpose of the project.	2
Pr6	That comment about the pros and cons of the proposed project. Discussion on the proposed objectives of the project and how they are implemented.	2
Pr7	Consultation with individual project teams on substantive and methodological issues related to the preparation of the project in terms of environmental conditions (economic and legal environment).	2
Pr8	Consultation with individual project teams substantive and methodological	2

	issues related to the preparation of the project in terms of market conditions.	
Pr9	Consultation with individual project teams on substantive and methodological issues related to the preparation of the project in terms of diagnosing the company and indicating changes directions.	4
Pr 10	Consultation with individual project teams on substantive and methodological issues related to the preparation of the project in terms of the economic and social impact of the proposed changes.	4
Pr11	The second plenary session will be held in classes 13 and 14 during the session, and all the teams will present the results achieved diagnostic and design work and respond to questions the instructor and students. Each project team is required to provide the teacher's "Project" in hard copy and in electronic form at least one week before class Number 12	4
Pr12	Describe class No. 15 by the leading pros and cons of the various reports, discussions with project teams. Presentation and discussion of the ratings for each student	2
	Total hours	30

TEACHING TOOLS USED
Project N1. IT tools (Excel, Word, PowerPoint.(for presentation and calculation) N2. Templates prepared by the lecturer and published them on e-portal N3. Paper or digital report N4. Public Institution Databases (e.g. PNB, Statistics Poland) N5. Teamwork completed with the result presentation. N6. Shared disks N7. The case studies of strategy. N8. Official hours

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_U01 PEU_U02	Assessment of activity in project classes, including plenary sessions.
F2	PEU_W01 PEU_W02 PEU_U01	Assessment of homework.

	PEU_U02 PEU_U03	
F3	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_U03 PEU_K01	Evaluation of the written version of the final paper.
F4	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01	Evaluation of the presentation in the first plenary session.
F5	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_U03 PEU_K01	Assessment of the presentation in the second plenary session.
C (projects) = $0,15 \cdot F1 + 0,2 \cdot F2 + 0,3 \cdot F3 + 0,15 \cdot F4 + 0,2 \cdot F5$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Duda J., <i>Internacjonalizacja polskich mikro- i małych przedsiębiorstw w procesie integracji europejskiej i globalizacji</i> , Difin [2] Godziszewski B., Haffer M., Stankiewicz M.J., Sudoł S., <i>Przedsiębiorstwo. Teoria i praktyka zarządzania</i> , PWE, Warszawa 2011. [3] Wach K., <i>Europeizacja małych i średnich przedsiębiorstw. Rozwój przez umiędzynarodowienie</i> , PWN, Warszawa 2012.		
<u>SECONDARY LITERATURE:</u>		
[4] INWESTIN, <i>Strategie wchodzenia na rynki zagraniczne</i> , 2016. [5] <i>Internacjonalizacja przedsiębiorstw w perspektywie przedsiębiorczości międzynarodowej</i> , pod red. K. Wacha, PWN, Warszawa 2019 [6] Komor M., <i>Euromarketing. Strategie marketingowe przedsiębiorstw na eurorynku</i> , PWN, Warszawa 2000. [7] Kotabe M., Helsen H., <i>Global Marketing Management</i> , John Wiley & Sons Inc., 2001. [8] Kozłowska J., <i>Metodyka analizy strategicznej przedsiębiorstwa na potrzeby integracji produktowo-usługowej</i> , O. Wyd. Politechnika Białostocka, Białystok 2020. [9] Rogut A., <i>Małe i średnie przedsiębiorstwa w integracji ekonomicznej</i> , Wyd. Uniw. Łódzkiego, Łódź 2002. [10] <i>Zarządzanie małym i średnim przedsiębiorstwem</i> , pod red. M. Służyckiego, Uwarunkowania europejskie, wyd. Difin, Warszawa 2002. [11] Śliwińska K., <i>Działalność marketingowa w przedsiębiorstwach i organizacjach w Polsce w warunkach unijnych</i> , Wydawnictwo AE w Katowicach, Katowice 2006.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Edyta Ropuszyńska-Surma, edyta.ropuszyńska-surma@pwr.edu.pl		

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Elementy rachunkowości menedżerskiej**Name of subject in English:** Elements of managerial accounting**Main field of study (if applicable):** Management**Specialization (if applicable):** Business management**Profile:** academic**Level and form of studies:** 1st, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL0088P**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)				125	
Form of crediting				crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points for direct teacher-student contact (BU) classes				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Student should have basic knowledge in accounting and finance

SUBJECT OBJECTIVES

C1 Acquiring skills in managerial cost planning and pricing

C2 Acquiring the ability to draw up simple budgets for individual areas of activity

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Demonstrate ordered knowledge of setting cost standards

PEU_W02 Characterize and know the methods of making production decisions and material investments

PEU_W03- Knows the tools needed to build a budget

relating to skills:

PEU_U01 Is able to put into practice the methods of assessment and selection of manufacturing decisions and material investments

PEU_U02 Is able to manage fixed assets

PEU_U03 Is able to set prices for products

relating to social competences:

PEU_K01	Is aware of the importance of managerial accounting in an enterprise
PEU_K02	Is aware of the need to constantly improve his own knowledge and development and is ready to act in an entrepreneurial manner
PEU_K03	Is aware of the ethical obligations related to the professional role of diagnostics and is prepared to initiate changes in the workplace

PROGRAM CONTENT		
Project		Number of hours
Proj 1	Discussion of the rules of passing and organization of project. Presentation of the assumptions for the workshops and a preliminary discussion of the importance of knowledge about managerial accounting	2
Proj 2	Basic, substantive problems of postulated cost accounting and cost planning, determination of deviations	2
Proj 3	Asset management	2
Proj 4	Process costing	2
Proj 5	Choice of assortment structure, decisions to make or buy	2
Proj 6	Choice of manufacturing technology, decisions to produce or discontinue production	2
Proj 7	Accounting for costs of ancillary departments	2
Proj 8-9	Profitability calculation for investment projects - selection of decision options	4
Proj 10-11	Metodologiczne problemy budżetowania poszczególnych obszarów działalności	4
Proj 12-13	Strategic scorecard	4
Proj 14	Basic conditions for price calculations - trade margin	2
Proj 15	Project defense	2
	Total hours	30

TEACHING TOOLS USED
N1. Multimedia presentation N2. group work N3. Practical exercises N4. Presentation of the diagnostic work N5. Discussion of the effects during the presentation of the results of the student's 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_W02; PEU_W03	Participation in problem discussions
F2	PEU_U01; PEU_U02; PEU_U03	Assessment of group work
F3	PEU_U01; PEU_U02 PEU_U03	Preparation of diagnostic work in the form of a project
F4	PEU_U01; PEU_U02; PEU_U03; PEU_K01; PEU_K02; PEU_K03	Project defense
P= 0,2*F1+0,3*F2+0,4*F3+0,1*F4		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Dylewski P., Filipiak M., Szczypa B., Budżetowanie w przedsiębiorstwie, 2021, Warszawa, CeDeWu [2] Budzeń,D., Edwarczyk B.,Marchewka-Bartkowiak K., Zarządzanie majątkiem i długiem lokalnym, 2021, Warszawa, CeDeWu [3] Dobija D., Kucharczyk M., Rachunkowość zarządcza, Analiza i interpretacja, 2017, Warszawa: Wolters Kluwer Business.	
<u>SECONDARY LITERATURE:</u>	
[1] Sadowska B., Zrównoważony rachunek kosztów w społecznie odpowiedzialnej logistyce, 2021, Szczecin,Wydawnictwo Naukowe Uniwersytetu Szczecińskiego [2] Simon, H., Leżoń, M., & ICAN InstitutePricing man; Jak zarządzanie ceną może odmienić biznes. . 2016, Warszawa: ICAN Institute. [3] Szczypa P. (red), Kalkulacja i rachunek kosztów - od teorii do praktyki, 2021, Warszawa, CeDeWu	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr inż. Agnieszka Parkitna	agnieszka.parkitna@pwr.edu.pl

[1] Dylewski P., Filipiak M., Szczypa B., Budżetowanie w przedsiębiorstwie, 2021, Warszawa, CeDeWu
[2] Budzeń, D., Edwarczyk B., Marchewka-Bartkowiak K., Zarządzanie majątkiem i długiem lokalnym, 2021, Warszawa, CeDeWu
[3] Dobija D., Kucharczyk M., Rachunkowość zarządcza, Analiza i interpretacja, 2017, Warszawa: Wolters Kluwer Business.

[1] Sadowska B., Zrównoważony rachunek kosztów w społecznie odpowiedzialnej logistyce, 2021, Szczecin, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego

[2] Simon, H., Leżoń, M., & ICAN Institute Pricing man; Jak zarządzanie ceną może odmienić biznes. . 2016, Warszawa: ICAN Institute.

[3] Szczypa P. (red), Kalkulacja i rachunek kosztów - od teorii do praktyki, 2021, Warszawa, CeDeWu

Dr inż. Agnieszka Parkitna agnieszka.parkitna@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Finanse menadżerskie****Name of subject in English: Managerial finance****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0127****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)	0,6	1,2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. basic knowledge of corporate finance
2. knowledge of basic financial accounting

SUBJECT OBJECTIVES

- C1. To introduce the student to basic mechanisms of using financial information for internal company needs and in managerial decision-making.
- C2. To introduce the student to the tools of managerial reporting.
- C3. To introduce the student to the essence and principles of cost allocation.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - knows the role and tasks of managerial accounting

PEU_W02 - knows the tools of qualification and settlement of costs essential for decision-making account

PEU_W03 - knows the tools of managerial accounting and managerial reporting

relating to skills:

PEU_U01 - can design a managerial reporting system adapted to the company processes and management model

PEU_U02 - can apply managerial accounting tools for operational and strategic decisions relating to social competences:

PEU_K01 - understands the difference between managerial reporting and external financial reporting resulting from balance sheet law

PEU_K02 - understands the essence of the account of responsibility centers for the enterprise value, its connection with management and motivation systems

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organizational classes, discussion of the goals and principles of the course	1
Lec 1	Objectives, tasks of managerial accounting against the background of financial accounting	1
Lec 2	Accounting for centres of responsibility for financial performance and enterprise value	2
Lec 3	Multi-block financial margin models and managerial reporting	2
Lec 4	Principles and tools of cost accounting	2
Lec 5	Cost of capital in managerial accounting	2
Lec 6	Budgeting - role in business management, tools	2
Lec 7	Strategic managerial accounting	2
Lec 8	Colloquium	1
	Total hours	15
Classes		Number of hours
Cl 1	Organizational classes, discussion of the goals and principles of the course	2
Cl 2	Identifying centres of responsibility for financial performance	2
Cl 3	Designing a management reporting system - Management presentation of the profit and loss account	2
Cl 4	Designing a management reporting system	2
Cl 5	Managerial hierarchy of costs	2

Cl 6	Entity-based cost accounting	2
Cl 7	Creation of profit centres, cost centres, investment centres	2
Cl 8	Creation of profit centre hierarchies	2
Cl 9	Internal profit centres, development of price lists for internal services	2
Cl 10	Cost accounting	2
Cl 11	Budgeting and deviation analysis	2
Cl 12	Budgeting and deviation analysis	2
Cl 13	Cost of capital accounting	2
Cl 14	Designing measures for achieving strategic goals (KPI)	2
Cl 15	Designing bonus formulas and managerial reward systems	2
	Total hours	30

TEACHING TOOLS USED

N1. Lecture supported by a multimedia presentation
N2. Case studies
N3. Project prepared by students
N4. Accounting exercises

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	Colloquium
F2	PEU_U01 - U02 PEU_K01-K02	Activity in class while solving exercises and case studies
F3	PEU_U01 - U02 PEU_K01-K02	Development of a management reporting concept for a selected company

P (for lectures) = F1

P (for classes) = 0,3xF2+0,7xF3

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Nesterak J., Controlling zarządczy, Wolters Kluwer, Warszawa, 2015.
[2] Nowak E. (red.), Rachunek kosztów i rachunkowość zarządcza: teoria i praktyka, Wrocław, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, 2011.

SECONDARY LITERATURE:

- [1] Jaruga A., Kobalski P., Szycha A., Rachunkowość zarządcza, Warszawa: Wolters Kluwer, 2010.
[2] Sołtys D. (red.), Rachunkowość zarządcza przedsiębiorstw. Rachunek kosztów, Wyd AE Wrocław 2009.
[3] Kaplan R., Zarządzanie Kosztami i Efektywnością, Dom Wydawniczy ABC, Warszawa 2000

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Michał J. Kowalski, michal.kowalski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Finanse przedsiębiorstwa****Name of subject in English: Corporate finance****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0120****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)	75	50			
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 classes (P)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,2	1,2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. knowledge of basic economics
2. knowledge of basic accounting

SUBJECT OBJECTIVES

- C1. To introduce the student to basic financial mechanisms functioning in an enterprise.
 C2. To introduce the student to basic sources of asset financing and their characteristics.
 C3. To introduce the student to methods used in evaluating the financial situation of an enterprise.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

- PEU_W01 - knows basic financial categories, differences between accounting and economic model of economic information
 PEU_W02 - has knowledge about sources of financing enterprise activity - knows their types, features, functions and cost
 PEU_W03 - knows basic effectiveness account of enterprise
 PEU_W04 - knows methods of evaluation of enterprise financial situation, has knowledge in scope of preliminary evaluation of enterprise on the basis of financial reports and indicator analysis

relating to skills:

PEU_U01 - can see dependencies and cause-effect relations between phenomena occurring in the enterprise

PEU_U02 - has the ability to use various sources of information in the process of taking financial decisions

PEU_U03 - can apply known tools and methods of financial situation assessment in business practice

relating to social competences:

PEU_K01 - knows how to identify and fill in a gap in the knowledge held to solve financial problems

PEU_K02 - can identify opportunities and threats for financial situation of entities existing in the external environment

PEU_K03 - is prepared to participate in projects on changes in the way of managing company resources

PEU_K04 - understands the need for continuous improvement of knowledge and skills, and knows the opportunities and ways to develop their own skills

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Basic financial categories	2
Lec 2	Discussion of company assets in terms of their characteristics and functions	2
Lec 3	Types and functions of capital	2
Lec 4	Cost of capital	2
Lec 5	Financial concepts of profit	2
Lec 6	Transition from accrual to cash basis of accounting	2
Lec 7	Fundamentals of cost-production-profit analysis	4
Lec 8	Financial leverage	2
Lec 9	Operating leverage	2
Lec 10	Combined leverage	2
Lec 11	Own risk of the company	2
Lec 12	Profitability - measurement principles and factors affecting it	4
Lec 13	Liquidity and working capital management	2
	Total hours	30
Classes		Number of hours
Cl 1	Transition from accrual to cash basis of accounting.	4
Cl 2	Break-even analysis	4
Cl 3	Colloquium	2
Cl 4	Operating leverage	4
Cl 5	Financial leverage	4
Cl 6	Combined leverage	2
Cl 7	Profitability causal analysis	4
Cl 8	Liquidity analysis	2
Cl 9	Colloquium	2
Cl 10	Preliminary assessment of a company on the basis of financial statements	2

	Total hours	30
TEACHING TOOLS USED		
N1. Multimedia presentation N2. Spreadsheet		

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, PEU_K02, PEU_K03, PEU_K04	Colloquium
P2	PEU_W01, PEU_W02, PEU_W03, PEU_W04,	Exams
P1 (classes) = 0,2 activity + 0,8 colloquium P2 (lecture) = 0,05 presence + 0,95 exams		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Dudycz T., Analiza finansowa jako narzędzie zarządzania finansami przedsiębiorstwa, Wydawnictwo Indygo Zahir Media, Wrocław 2011		
<u>SECONDARY LITERATURE:</u> [1] Damodaran A., Finanse korporacyjne: teoria i praktyka, Helion, Gliwice 2007. [2] Gołębiowski G., Tłaczała A., Analiza finansowa w teorii i w praktyce, Difin, Warszawa 2009. [3] Machała R., Zarządzanie finansami i wycena firmy, Oficyna Wydawnicza Unimex, Wrocław 2011. [4] Rutkowski A., Zarządzanie finansami, PWE, Warszawa 2007		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Prof. dr hab. inż. Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Finansowanie rozwoju małej firmy****Name of subject in English: Financing the development of a small enterprise****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0128****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 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)	0,6	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Gaining knowledge and familiarizing students with the problems of initiating business development and business operations

C2 Acquiring practical skills for initiating and developing a business

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 have structured knowledge in the field of classification of financing sources for a small company.

PEU_W02 characterizes and knows the individual sources of financing and conceptual models of running a business as well as the key factors influencing the effectiveness of activities carried out in these functional areas of the organization.

PEU_W03 characterize and know the basic tools and techniques used in the process of acquiring a business investor.

relating to skills:

PEU_U01 Is able to match the sources of financing to the needs and possibilities of a newly established business and to use methods and techniques as well as measures for assessing and forecasting the results of a newly established business.

PEU_U02 Is able, in practice, to prepare properly a business presentation - Pitch.

PEU_U03 have the ability to search and analyse support offers for business environment institutions.

relating to social competences:

PEU_K01 is aware of the importance of the SME sector in business practice

PEU_K02 is aware of the need to constantly improve their own knowledge and professional skills.

PEU_K03 is aware of the ethical obligations related to the role of the entrepreneur

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Organizational lecture - discussion of the principles of organizing lectures and the rules of passing. Introduction to small business - the role of the SME sector for the national economy.	1
Lec 2	Company or startup? Conceptual business assumptions, financial model, sales presentation, ways of acquiring an investor, necessary formalities with the investor	2
Lec 3	Sources of financing business activity: financing from own resources: founding FFF (Friends, Family and Fools) Bootstrapping, Business Angels, Venture capital funds	2
Lec 4	Sources of financing business activities: Debt financing: Leasing, Factoring, Loans, Crowdfunding - crowdfunding in the current account, medium and long-term loans, investment loan - cooperative banks, loan guarantee funds, loan funds.	2
Lec 5	Sources of financing start-ups from public funds: technological credit, supporting cooperation links of supra-regional importance, support for obtaining / implementing protection of industrial property, supporting economic activity in the field of electronic economy, framework programs in the field of research and technological development.	2
Lec 6	Financing enterprises as part of business environment institutions: entrepreneurship incubators, technology parks, technology transfer centers, subsidies, support for targeted projects, support for SMEs, direct support for investments in micro, small and medium-sized enterprises, support for the commercialization of scientific research, innovation voucher, project financing purposeful in the field of practical applications for SMEs.	2
Lec 7	E-Commerce and New Connect - an alternative trading system.	2
Lec 8	Final test	2
	Total hours	15

Classes		Number of hours
Cl 1	Organizational classes - discussion of the principles of organizing classes and the rules of passing. Introduction to the workshop - developing Pitch with particular emphasis on business conceptual assumptions and designing the financial model of a new business venture as part of the investor presentation:	2
Cl 2	Arrangement of assemblies: Why now? What is the problem or challenge?	2

CI 3-4	Identification of the problem on the market: How are customers currently dealing with this problem? Why is it not enough? What is worth doing? - Analysis of market potential.	4
CI 5-6	Actions taken: What have we done? What are the benefits of such a solution? How does it work ?? - Idea protection	4
CI 7	What market will we operate in and how will we enter it? What is the market target? What is the absorbcency of the market? Selection of distribution channels? - Distribution logistics	2
CI 8-9	Financial planning, selection of financing sources: How will we earn and how profitable is this business?	4
CI 10-11	Estimating opportunities and threats: What have we done so far, what are the main challenges ahead of us? What do we need to meet these challenges? - SWOT analysis	4
CI 12-13	Risk identification and assessment: Who is behind this solution? What does the comma say? - Creating a risk matrix	4
CI 14-15	Pitch presentation by individual groups	4
	Total hours	30

TEACHING TOOLS USED	
N1. Multimedia presentation with the use of a projector N2. Activity N3. Final test N4. Presentation of the diagnostic work N5. Discussion of the effects during the presentation of the results of the student's 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_W02; PEU_W03	Participation in problem discussions Knowledge verification in the form of a final test
F2	PEU_U01; PEU_U02; PEU_U03	Assessment of the degree of understanding of the issue
F3	PEU_U01; PEU_U02; PEU_U03	Preparation of diagnostic work in the form of a project
F4	PEU_U01; PEU_U02; PEU_U03; PEU_K01; PEU_K02; PEU_K03	Project defense - pitch presentation
P (lecture) = F1 P (classes) = 0,4*F2+0,5*F3+0,1*F4		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Agnieszka Parkitna, Jerzy Tutaj, Kamila Urbańska, Jak założyć i prowadzić działalność gospodarczą, cz.1 i 2, Świdnica 2018 i 2019 , http://um.swidnica.pl/media/PAULA%20STRONA/poradnik_dzialanosc_w_PL_pl.pdf [2] Jacek Kotarbiński. (2008). Sztuka rynkologii. Onepress. [3] Piotr Kolmas. (2008). Sprzedaż pogłębiona 2.0. Sprzedawaj więcej, skuteczniej i za każdym razem. Onepress.
<u>SECONDARY LITERATURE:</u> [1] Kotler, P., Keller, K., Pilarczyk, B., Mruk, H., Zawisławski, M., Środa, J., & Dom Wydawniczy REBIS. (2012). Marketing. Poznań: Rebis. [2] Grudowski Piotr. (2017). Wpływ outsourcingu na poprawę skuteczności wybranego procesu pomocniczego – studium przypadku. Handel Wewnętrzny, (370), 190-199. [3] Mutwil, A. (2016). Analiza rynku Business Process Outsourcing w logistyce. Marketing I Zarządzanie, 42(1), 127-138.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Dr inż. Agnieszka Parkitna agnieszka.parkitna@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Fizyka Środowiska Pracy**Name of subject in English:** Work Environment Physics**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL0099**Group of courses:** NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15	30	
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 (X) final course					
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)	0,5		0,5	1,0	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None.

SUBJECT OBJECTIVES

C1 Possessing the basic knowledge about physics in the work environment including principles of ergonomics and work safety, necessary to decision process in management and manufacturing.

C2: acquiring skills of organizing work according to ergonomics and work safety principles in the field of assessment and optimization the impact of physical factors of the work environment.

SUBJECT LEARNING OUTCOMES

In terms of knowledge:

PEU_W01: knows and understands the basic physical processes formative for the work environment,

PEU_W02: has knowledge about the influence of selected factors of work environment on human body and workload

In terms of skills:

PEU_U01: applies theoretical knowledge of physics, with particular emphasis on physical factors of the work environment, to optimize the work conditions

PEU_U02: is able to determine legal and normative conditions of work environment factors in Poland and in European Union on the basis of adequate documents

In terms of social competences:

PEU_K01: is prepared to initiate changes in the field of assessment and optimization of workload and participate in their planning and implementation

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational issues. Introduction. Work environment and work environment physics - definition. Ergonomics - the history, aims and objectives, methods of ergonomic. Human-machine-work environment system. Fundamentals of design of work environment.	4
Lec 2	Workspace of man. Variability of human anthropometric measurements. Recommendations for ergonomic work space design. Layout of workstation elements. Posture at work. Factors determining the awkward postures. The consequences of awkward posture.	2
Lec 3	Working at the computer workstation. The recommended posture. Workspace organization. Requirements and recommendations for computer workstation.	2
Lec 4	Work environment factors and their impact on human productivity. Microclimate - basic concepts, the impact on the human body and work productivity. Physical parameters of microclimate. Methods of optimization of thermal comfort of employee.	2
Lec 5	Lighting. Eyesight and eye anatomy. Basic physical lighting and illumination parameters affecting the employee. The impact of lighting on worker productivity. Methods of optimization of lighting comfort of employee.	2
Lec 6	Sound - the basic physical parameters. Noise. Structure and function of the organ of hearing. The impact of noise on humans. Prevention of noise.	2
Lec 7	Written test	1
	Total hours	15
Laboratory		Number of hours
Lab 1	Organizational issues. Microclimate - computer simulation of microclimate factors for human thermal comfort.	2

Lab 2	Designing a computer workstation - computer analysis of the geometric parameters of the workstation computer.	2
Lab 3	Lighting - simulation of lighting parameters in the workplace.	3
Lab 4	Design of layout of work elements.	2
Lab 5	Laboratory testing of the man – machine system.	4
Lab 6	Human-computer interaction. Usability testing	2
	Total hours	15
Project		Number of hours
Pr1	Introduction. Credit rules, project scope, group work rules, distribution of project topics in groups	2
Pr2	Consultation classes - discussing particular stages of the project: computer workstation - geometry	2
Pr3	Execution of the 1st stage of the project: computer workstation - geometry	2
Pr4	Consultation classes - discussing individual stages of the project: standing workstation	2
Pr5	Execution of the 2nd stage of the project: standing workstation	2
Pr6	Consultation classes - discussion of individual stages of project implementation: selected environmental factors - measurement and assessment of compliance with regulations/standards/recommendations: microclimate	2
Pr7	Execution of the 3rd project stage: microclimate	2
Pr8	Consulting classes - discussion of individual stages of project implementation: selected environmental factors - measurement and assessment of compliance with regulations/standards/recommendations - lighting	2
Pr9	Execution of the 4th project stage: lighting	4
Pr10	Consulting classes - discussion of individual stages of project implementation: selected environmental factors - measurement and assessment of compliance with regulations/standards/recommendations - noise	2
Pr11	Execution of the 5th stage of the project: noise	2
Pr12	Summary of work and presentation of projects	4
Pr13	Grading	2
	Total hours	30
TEACHING TOOLS USED		
N1. The lecture with multimedia presentation and activity tools (i.e. padlet, mentimeter) N2. Laboratory - computer software (Amicro, Alinks, Dialux, ErgoEaser or equivalent);, specialized educational stations available in the Laboratory of Ergonomics N3. Working in groups during classes N4. Presentation of the projects		

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_U01 - PEU_U02 PEU_K01	Activity
F2	PEU_W01 – PEU_W02 PEU_U01 - PEU_U02 PEU_K01	Presentations
F3	PEU_W01 – PEU_W02 PEU_U01 - PEU_U02 PEU_K01	Reports
F4	PEU_W01 – PEU_W02	Written final test
F5	PEU_W01 – PEU_W02	Tests
P (lecture) = F4		
$P (\text{laboratory}) = 0,2 \cdot F1 + 0,5 \cdot F3 + 0,3 \cdot F5$		
$P (\text{project}) = 0,2 \cdot F1 + 0,2 \cdot F2 + 0,6 \cdot F3$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Górska E., Ergonomia: projektowanie, diagnoza, eksperymenty, Warszawa : Oficyna Wydawnicza Politechniki Warszawskiej, 2015.		
<u>SECONDARY LITERATURE:</u> [1] Norman D., Dizajn na co dzień, Wydawnictwo Karakter, 2018. [2] Nowak E., Atlas antropometryczny populacji polskiej - dane do projektowania. The Anthropometric Atlas of Polish Population - Data for Design, IWP Warszawa, 2001 [3] Wykowska M., Ergonomia : jako nauka stosowana, Kraków: AGH Uczelniane Wydawnictwa Naukowo-Dydaktyczne, 2009.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Katarzyna Jach katarzyna.jach@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Grupy kapitałowe- istota, specyfika i praktyka funkcjonowania

Name of subject in English: Capital groups - the essence, specifics and practice of functioning

Main field of study (if applicable): Management

Specialization (if applicable): Business management

Profile: academic

Level and form of studies: 1st, full-time *

Kind of subject: optional

Subject code: W08ZZZ-SL0089P

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)				125	
Form of crediting				crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

The student should have basic knowledge in the field of management, marketing, law and finance of enterprises.

SUBJECT OBJECTIVES

- C1. Gaining knowledge about management, fiscal and financial conditions as well as market conditions related to the functioning of capital groups,
 C2. Acquiring the ability to diagnose the causes and problems characteristic of a capital group in perspective; market type, management structure, consolidated financial statements and ownership changes.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Demonstrate ordered knowledge of the essence and specificity of capital groups.

PEU_W02 Knows and is able to explain the rationale for the creation and indicate methods, techniques and tools for managing a grouping of capital-related business entities

relating to skills:

PEU_U01	Is able to search and use current information on the conditions and regulations regarding related entities.
PEU_U02	Is able to diagnose and assess the state of organization of a specific capital group.
relating to social competences:	
PEU_K01	Is able to argue in the group forum the characteristics of a specific economic situation of a capital group.
PEU_K02	Is oriented towards independent search of current economic information and acting in an entrepreneurial manner

PROGRAM CONTENT		
Project		Number of hours
Proj 1	Presentation of assumptions for workshops and a preliminary discussion of the importance of knowledge about capital groups in the global economy	2
Proj 2	Analytical perspectives for the assessment of capital groups	2
Proj 3	Methodological problems - types of capital groups	2
Proj 4	Basic conditions of capital groups - reporting and taxes	2
Proj 5	Problems of investing and marketing capital groups	2
Proj 6	Transfer prices	2
Proj 7	Preliminary discussion of diagnostic tasks for specific examples. Comments on articles referring to the specifics of capital groups	2
Proj 8	Final approval of diagnostic tasks. Comments on articles referring to the specifics of capital groups	2
Proj 9	Formulation and visualization of conclusions from the analysis - discussion	2
Proj 10-11	Presentation of a selected capital group - a synthetic approach	4
Proj 12-13	Presentation of a selected capital group, detailed view	4
Proj 14	Consultation of diagnostic work. Comments on articles referring to the specifics of capital groups.	2
Proj 15	Receipt of diagnostic works	2
	Total hours	30

TEACHING TOOLS USED
N1. Multimedia presentation
N2. Practical exercises - critical analysis of professional press articles
N3. Presentation of diagnostic work
N4. Discussion of effects (or reasons for failure) during the presentation of student work results

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_W0; PEU_W02	Participation in problem discussions
F2	PEU_U01; PEU_U02	Example presentation
F3	PEU_U01; PEU_U02	Preparation of diagnostic work
F4	PEU_U01; PEU_U02	Comments on current economic problems-

	PEU_ K01; PEU_ K02	critical analysis
$F = 0,2 \cdot F1 + 0,3 \cdot F2 + 0,4 \cdot F3 + 0,1 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE	
PRIMARY LITERATURE:	
[1] Mika J.F., Ceny transferowe. Komentarz do rozporządzeń. Metody szacowania i analizy cen transferowych. Obowiązki sprawozdawcze. Strategia podatkowa. Schematy podatkowe MDR. Przykłady, 2022, Wydawnictwo C.H.Beck Sp. z o.o. [2] Mika J.F., Podmioty powiązane. Obowiązki podatkowe. Raportowanie transakcji grupowych, 2022, Wydawnictwo C.H.Beck Sp. z o.o., Wrocław [3] Trocki M., Grupy kapitałowe. Tworzenie i funkcjonowanie 2021 Wydawnictwo Naukowe PWN, Warszawa	
SECONDARY LITERATURE:	
[1] Kosieradzki, T., Piekarz, R., Rynkowska, A., Ceny transferowe 2019. Mechanizmy, dokumentacje, raportowanie, 2019, Wolters Kluwer, Warszawa [2] Przewodnik po dokumentacji cen transferowych. Nowe zasady od 2018 roku. Przykłady dokumentacji krok po kroku, R. Piekarz (red.), 2018, Wolters Kulwer, Warszawa [3] Remlein M., Strojek-Filus M., Świetla K., Polityka rachunkowości grup kapitałowych, 2021, CeDeWu, Warszawa	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr inż. Agnieszka Parkitna; agnieszka.parkitna@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Komunikacja interpersonalna****Name of subject in English: Interpersonal communication****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0110S****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 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)					1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1. Student acquires basic knowledge about the communication process, its psychological, social and organizational foundations.

C2. Achieving improved communication behavior and acquiring the ability to consciously define and implement strategies in this area.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01- Student has basic knowledge of psychology and sociology of organizations, especially in the field of communication behavior and communication as a factor influencing the effectiveness of teams.

relating to skills:

PEU_U01 Student can select information sources and use them to solve communication problems among the working teams.

PEU_U02 – Student can identify, interpret and evaluate the communicative behavior of members of the organization and use typical techniques for improving these behaviors.

relating to social competences:
 PEU_K01 Student Demonstrates readiness to identify problems in the area of communication in the organization.

PEU_K02 - Student is prepared to initiate changes in the area of communication in the workplace and participate in their planning and implementation.

PROGRAM CONTENT

Seminar		Number of hours
Sem 1	Basics of communication theory and psycholinguistics.	2
Sem 2	Basics of communication theory and psycholinguistics.	2
Sem 3	Listening and contact training.	2
Sem 4	Assertiveness in communication.	2
Sem 5	Self-presentation - communication and image management.	2
Sem 6	Public statements: social anxiety and techniques for controlling it.	2
Sem 7	Creativity in communication.	2
Sem 8	Cheating and lying.	2
Sem 9	Effectiveness of expression	2
Sem 10	Effectiveness in communication - the credibility of the message	2
Sem 11	Gender differences in the communication process.	2
Sem 12	Content analysis (teams I-II)	2
Sem 13	Content analysis (teams III-IV)	2
Sem 14	Content analysis (teams V-VI)	2
Sem 15	Summary of classes; written test	2
	Total hours	30

TEACHING TOOLS USED

N1. Discussion
 N2. Group exercises
 N3. Case studies
 N4. Content analysis

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_U01- PEU_U02 PEU_K01-PEU_K02	Activity during classes
F2	PEU_W01 PEU_U01- PEU_U02 PEU_K01-PEU_K02	Works and analysis prepared in teams
F 3	PEU_W01 PEU_U01- PEU_U02 PEU_K01-PEU_K02	Written test result

$$P = 0.2 F1 + 0.4 F2 + 0.4 F3$$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. McKay, M., Davies, M., Fanning, P. (2006) *Sztuka skutecznego porozumiewania się.*
2. Morreale, S.P., Spitzberg B., H., Barge J. K. (2015) *Komunikacja między ludźmi.*
3. Ekman, P., (2003) *Kłamstwo i jego wykrywanie w biznesie, polityce i małżeństwie.*

SECONDARY LITERATURE:

1. Nęcki, Z. (2000) *Komunikacja międzyludzka.*
2. Pratkanis, A., Aronson, E., (2004) *Wiek propagandy.*
3. Berne, E. (2004) *W co grają ludzie.*

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Komunikacja marketingowa w Internecie****Name of subject in English: Marketing communication in the Internet****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0131****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)	25	50			
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)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,6	1,2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. knowledge of the basics of marketing

SUBJECT OBJECTIVES

C1. To gain knowledge concerning the problems of marketing communication in the Internet and digital media.

C2. To develop skills of planning and carrying out marketing activities with the use of modern media in a global environment.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - Is able to identify and explain the changes induced by IT tools in modern marketing communication.

PEU_W02 - Knows methods and techniques of analysis and planning marketing activities with the use of modern media.

relating to skills:

PEU_U01 - Can plan and carry out marketing activities with the use of modern media.

PEU_U02 - Can use modern marketing tools and coordinate global enterprise activities on the Internet and digital media.

relating to social competences:

PEU_K01 - Is aware of social changes in business and customer service.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction and crediting rules	1
Lec 2	The impact of the information society on marketing strategies.	2
Lec 3	Marketing communication in the Internet.	2
Lec 4	Rules of creating and positioning websites	2
Lec 5	Promotion in digital media	2
Lec 6	Communication in social media and PR	2
Lec 7	International and intercultural communication	2
Lec 8	Test	2
	Total hours	15

Classes		Number of hours
Cl 1	Introduction and crediting rules	2
Cl 2	Selection of the object of analysis	2
Cl 3	Analysis of marketing communication strategy in digital media	2
Cl 4	Conceptual design of a website	2
Cl 5	Creation of a prototype and discussion	2
Cl 6	Promotional campaign design	2
Cl 7	SEM and SEO	2
Cl 8	Promotion in social media	2
Cl 9	Promotion in mobile channels	2
Cl 10	Other channels of marketing communication	2
Cl 11	Alternative forms of marketing communication	2
Cl 12	Analysis of challenges in international communication	2
Cl 13	Analysis of challenges in intercultural communication	2
Cl 14	Final presentation	2
Cl 15	Evaluation	2
	Total hours	30

TEACHING TOOLS USED

N1. Informative lecture
 N2. Multimedia presentation
 N3. Problem-based lecture

N4. Case study
 N5. Problem task
 N6. Computer-aided design

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 (lecture)	PEU_W01, PEU_W02, PEU_K01	Test
F2 (classes)	PEU_U01, PEU_U02, PEU_K01	Problem assignments using digital tools
F3 (classes)	PEU_U01, PEU_U02, PEU_K01	Final presentation
P (classes) = 0,5*F1 + 0,5*F2 P (lecture) = F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Agnieszka Izabela Baruk, Katarzyna Hys, Adam Dzikowski, Marketing dla inżynierów , PWE, 2012
- [2] Jarosław Królewski, Paweł Sala, E-marketing. Współczesne trendy. Pakiet startowy. PWN 2021
- [3] Grzegorz Mazurek, Transformacja cyfrowa. Perspektywa marketingu. PWN 2020

SECONDARY LITERATURE:

- [1] Mirosław Pacut , Krystyna Śliwińska, Narzędzia i techniki komunikacji marketingowej XXI wieku, Wolters Kluwer Polska, 2011
- [2] Andrzej Limański, Ireneusz Drabik, Marketing międzynarodowy, Difin, 2010

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Dzikowski, adam.dzikowski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Lean start-up**Name of subject in English:** Lean start-up**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Management**Profile:** academic**Level and form of studies:** 1st, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL0151**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	~~Examination~~ /crediting with grade*			~~Examination~~ /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)	0,6			1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about economics, management, innovation processes
2. Basic knowledge about entrepreneurship

SUBJECT OBJECTIVES

C1 To get to know methods of designing innovative enterprises

C2 Practical exercising of the stages of innovative enterprise design process according to the Lean start-up concept

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 - has a broadened and deepened knowledge of the conditions of innovativeness of the organization methods of designing an innovative company

PEU_W02 - knows the stages of innovative company creation cycle and methods, techniques and tools to solve managerial problems

relating to skills:

PEU_U01 - is able to independently use a variety of Polish and foreign sources of information, in particular professional literature, and is able to identify the needs of potential customers of the

analyzed organization PEU_U02 - can construct a business model of a potential start-up enterprise and participate in discussion and present their opinions relating to social competences: PEU_K01 - is able to think and act in an entrepreneurial manner and is aware of barriers, limitations and threats arising in the environment of the analyzed entrepreneur PEU_K02 - cooperate with other members of a project team to create innovative solutions and is prepared to initiate changes in the company		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	The concept and features of a start-up company	1
Lec 2	Presentation of the method of designing innovative products - design thinking	2
Lec 3	Lean start-up method	2
Lec 4	Running lean method	2
Lec 5	Customer development model	2
Lec 6	Creating needs, searching for solutions, creating a minimum viable product	2
Lec 7	Creating value propositions, identifying target segments of customers	2
Lec 8	Building a company business model	2
	Total hours	15
Project		Number of hours
Proj 1	Introductory classes - discussion of project assumptions. Selection of project groups	2
Proj 2	Defining the problem	2
Proj 3	Creating solutions	2
Proj 4	Building fast prototypes - product prototype description	2
Proj 5	Development of assumptions and features of a minimum viable product (MVP)	1
Proj 6	Target market segmentation	2
Proj 7	Identifying the beachhead market	2
Proj 8	Defining value proposition	2
Proj 9	Adjusting value propositions to the target segment (product - market fit)	2
Proj 10	Creating a business model	2
Proj 11	Product and business model testing - interviews with potential clients	2
Proj 12	Designing a change of the business model - pivot	2

Proj 13	Company visualization	2
Proj 14	Presentation of an innovative company - business pitch	2
Proj 15	Summary, discussion, conclusions and pass mark	2
	Total hours	30

TEACHING TOOLS USED

N1. Traditional lecture using multimedia presentation
N2. Self-study – designing an innovative enterprise
N3. Presentations of start-up ideas prepared by students
N3. Discussion of solutions and ideas
N4. Consultations

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_U01-2	Ongoing checking of project progress
F2	PEU_U01-2, PEU_K01-2	Evaluation of the developed solutions
F3	PEU_W01-2	Evaluation of the course
P (lecture) = F3		
P (project) = 0,5*F1+0,5*F2		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Eric Ries, *Metoda Lean Startup. Wykorzystaj innowacyjne narzędzia i stwórz firmę, która zdobędzie rynek*, Onepress, 2011
- [2] Alexander Osterwalder, Yves Pigneur, *Tworzenie modeli biznesowych. Podręcznik wizjonera*, Helion, 2012

SECONDARY LITERATURE:

- [1] Ash Maurya, *Metoda Running Lean. Iteracja od planu A do planu, który da Ci sukces*, Helion, 2012
- [2] Steve Blank, Bob Dorf, *Podręcznik startupu. Budowa wielkiej firmy krok po kroku*, Helion, 2012
- [3] Beata Michalska-Dominiak, Piotr Grocholiński, *Poradnik design thinking czyli jak wykorzystać myślenie projektowe w biznesie*, Onepress, 2019

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Piotr Kubiński, piotr.kubiński@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Logistyka****Name of subject in English: Logistics****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0123****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)	25		25		
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)	0,6		0,6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about production and services management

SUBJECT OBJECTIVES

C1 To learn about the essence and decision-making problems of the logistic management of the operational activity of the enterprise.

C2. Familiarization with the integrative and systematic role of logistics

C3 . Determining the place of logistics in the area of material flows in the supply chain

SUBJECT EDUCATIONAL EFFECTSrelating to knowledge:

PEU_W01 – Has a basic knowledge of logistics systems and processes and recognizes their elements

PEU_W02 – Knows the goals and functions of logistics in the organization and the internal supply chain

PEU_W03 – Knows the basic methods, techniques and tools for solving problems in the area of the internal supply chain

relating to skills:

PEU_U01 – He can identify and diagnose business decision problems in the area of logistics

activities.		
PEU_U02 – Can independently use a variety of Polish and foreign-language sources of information, in particular professional literature.		
PEU_U03 – He can formulate alternative solutions in the field of logistic management of operational activities.		
<u>relating to social competences:</u>		
PEU_K01 – Able to interact and work in groups		
PEU_K02 – Has the ability to present		
PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Discussing the objectives of the course and the conditions of passing The essence, goals of logistic management in an enterprise.	2
Lec 2	Supply process management ("input" logistics) - strategic decisions	2
Lec 3	Supply process management ("input" logistics) - operational decisions	2
Lec 4	Distribution process management ("output" logistics) – strategic decisions	2
Lec 5	Distribution process management ("output" logistics) – operational decisions	2
Lec 6	Management of processes supporting the logistics area	2
Lec 7	Recent developments in logistics and logistics management in supply chains	2
Lec 8	Passing test	1
	Total hours	15

Laboratory		Number of hours
Lab 1	Discussion of the purpose of the course and the conditions of passing. GOAL-OPT simulation game (variant 2)	3
Lab 2	Simulation of the "pull-push" production control system	2
Lab 3	Planning material needs using the MRP system - Application of the MRP algorithm	2
Lab 4	Planning material needs using the MRP system - Generating the MPS schedule	2
Lab 5	Planning material needs using the MRP system - Solving a laboratory task	2
Lab 6	Planning material needs using the MRP system - MRP variation	2
Lab 7	Passing	2
	Total hours	15
TEACHING TOOLS USED		

- N1. multimedia presentation
- N2. work in groups
- N3. preparation of the report
- N4. presentation of the results
- N5. Use of computer teaching packages

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, PEU_U01, PEU_U02, PEU_U03	Test
F2	PEU_W03 PEU_U01, PEU_U03, PEU_K01, PEU_K02	Assessment of laboratory and design work
P(lecture)=F1 P(laboratory)=F2		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. St.Krawczyk, Logistyka. Teoria i praktyka, T2, Difin, Warszawa 2011.
2. J.Witkowski, Zarządzanie łańcuchem dostaw, PWE, Warszawa 2010.
3. A.Harrison, Remko van Hoek, Zarządzanie logistyką, PWE, Warszawa 2010

SECONDARY LITERATURE:

1. Ciesielski M. (red.), Logistyka we współczesnym zarządzaniu, Wydawnictwo AE w Poznaniu, Poznań 2003.
2. Ciesielski M. (red.), Sieci logistyczne, Wydawnictwo AE w Poznaniu, Poznań 2002.
3. Gołembska E. (red.), Kompendium wiedzy o logistyce, Wydawnictwo Naukowe PWN, Warszawa 2001.
4. J.K.Liker, G.L.Convis, Droga Toyoty do Lean leadership, MT Biznes, 2014

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Potocka Agnieszka.potocka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Makroekonomia
Name of subject in English: Macroeconomics
Main field of study (if applicable): Management
Specialization (if applicable): Business Management
Profile: academic
Level and form of studies: 1st level , full-time studies
Kind of subject: obligatory
Subject code: W08ZZZ-SL0006
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)	75	50			
Form of crediting	examination	credit with a grade			
For group of courses mark (X) final course					
Number of ECTS points	3	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)	1,2	1,2			

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Knowledge and understanding of the theory of macroeconomic management, including in terms of the different schools of economics.

C2 Education the ability to understand the correctness of macroeconomic management in the context of economic growth and development.

C3 Education skills identification and analysis of macroeconomic factors in the dimension of content and control in conjunction with the implemented economic policy.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 Explains the nature and place of economic sciences in the system of sciences and their substantive and methodological links with other scientific disciplines.

PEU_W02 Organizes and systematizes basic knowledge of basic concepts and laws, conditions and relationships

of macroeconomic growth and development of the national and world economy.
PEU_W03 Knows and explains the basic economic tools and regulations concerning the economy of the state and economies of integration groups in the global dimension.
relating to skills:
PEU_U01 Is able to analyze and evaluate theoretical knowledge in the field of economics and related scientific disciplines in order to analyze and interpret management problems on a macroeconomic scale.
PEU_U02 Has the ability to analyze the causes and dynamics of the factors of the macroeconomic environment in the context of the implemented macroeconomic policy and as elements of the company's environment.
relating to social competences:
PEU_K01 Is aware of the need to independently develop discussions about possible practical solutions in the functioning of the economy on a macroeconomic scale.
PEU_K02 Is prepared to take responsibility for justifying the presented view by analyzing the benefits and risks of individual solutions.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Organizational issues - discussion of the rules for organizing the lecture and the rules of passing. Introduction to macroeconomics. Simple Economy model	2
Lec 2-3	Macroeconomic measures. Measuring national income	4
Lec 4	Short-term fluctuations in the economy (two paradigms in macroeconomics - aggregate demand and aggregate supply	2
Lec 5	Economic development and growth. Economic fluctuations. Measuring economic growth and development, countercyclical policy	2
Lec 6-7	Country budget. Fiscal policy	4
Lec 8-9	Money market. Modern banking system	4
Lec 10	Labor market (unemployment)	2
Lec 11	Inflation, measuring the cost of living	2
Lec 12	International trade	2
Lec 13-14	Macroeconomics of the open economy (exchange rates, current account balance, economic policy)	4
Lec 15	Controversy around the role of the state in the economy	2
	Total hours	30

Classes		Number of hours
Cl 1	The concept and basic problems of macroeconomics	2
Cl 2-3	Macroeconomic measures and methods of their calculation. Creation and distribution of national income and its calculation	4
Cl 4	Two paradigms in macroeconomics - aggregate demand and aggregate supply	2
Cl 5	Economic growth (business cycle. Anti-cyclical policy)	2
Cl 6-7	Monetary and credit system. Essence, policy tools	4
Cl 8	Final test part 1	2
Cl 9-10	Budget - budgetary policy	4
Cl 11	Unemployment	2
Cl 12	Inflation	2
Cl 13	International trade	2
Cl 14	Exchange rates	2
Cl 15	Final test part 2	2

	Total hours	30

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation N2. To do lists N3. Activity - participation in the 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 W01; PEU W02; PEU W03	Results of final tests (part 1 i part 2)
F2	PEU U02; PEU U03	Practical exercises
F3	PEU K01; PEU K03	Participation in the discussion
F4	PEU W01; PEU W02; PEU W03; PEU U02; PEU U03	Results of final exam
P(lecture)=F4 P (classes)= 0,8*F1+0,1*F2+0,1*F3		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] D. Begg, S. Fischer, R. Dornsbuch, <i>Makroekonomia</i> , t.2, PWE, Warszawa 2007. [2] N. G. Mankiw, M. P. Taylor, <i>Makroekonomia</i> . PWE, Warszawa 2009. [3] E. Skawińska, K. Sobiech, K. Nawrot, <i>Makroekonomia</i> , PWE, Warszawa 2008.
SECONDARY LITERATURE: [1] Z. Bombera, H. Szczepiński, J. Telep (red.) <i>Państwo i rynek w gospodarce europejskiej</i> , Wyd. Almamier, Warszawa 2008. [2] E. Frejtag – Mika, <i>Teoria i praktyka ekonomii a konkurencyjność gospodarowania</i> , Wyd. Difin, Warszawa 2006. [3] R. Milewski (red.), <i>Podstawy ekonomii</i> , PWN, Warszawa 2001 i kolejne wydania. [4] R. Milewski (red.), <i>Podstawy ekonomii. Ćwiczenia, zadania, problemy</i> , PWN, Warszawa 2002 i kolejne wydania. [5] S. Swadźba, <i>Systemy gospodarcze i ich ewolucja</i> , Wyd. AE w Katowicach, Katowice 2008.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
dr hab. inż. Małgorzata Rutkowska, malgorzata.rutkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Matematyka****Name of subject in English: Mathematics 1 for Economists****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W13ZZZ-SL0001G****Group of courses: YES**

	Lecture	Exercise class	Laboratory	Project	Seminar
Number of hours of organized University classes (ZZU)	30	30			
Number of hours of total student workload (CNPS)	270				
Form of crediting	Examination				
For a group of courses mark the final course (X)	X				
Number of ECTS points	9				
including number of ECTS points for practical (P) classes	4				
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	7,0				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. High school graduation at basic level.

SUBJECT OBJECTIVES

C1. Acquiring basic knowledge related to solving equations and inequalities involving elementary functions such as polynomials and rational functions, exponential and logarithmic functions.

C2. Study of the basic concepts of algebra with the purpose of solving systems of linear equations.

C3. Learning the basic concepts, theorems, methods and applications of calculus of functions of one and two variables .

C4. Constructing mathematical models with the aim of applications in economy and technology.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge, the student:

PEU_W01 possesses basic knowledge essential for solving equations and inequalities involving absolute value, polynomials, and rational, exponential and logarithmic functions

PEU_W02 possesses elementary knowledge essential for solving systems of linear equations

PEU_W03 knows basic properties of elementary functions and basics of differential calculus and integral calculus of function of one variable

PEU_W04 possesses basic knowledge of calculus of functions of two variables.

Relating to skills, the student:

PEU_U01 is capable of solving equations and inequalities involving absolute value, polynomials, and rational, exponential and logarithmic functions

PEU_U02 is capable of solving systems of linear equations

PEU_U03 can calculate limits of sequences and functions, can determine asymptotes of functions, can calculate derivatives of functions and interpret calculation results, can calculate and interpret indefinite and definite integrals

PEU_U04 is capable of finding extrema of functions of two variables.

Relating to social competences, the student:

PEU_K01 can, without assistance, search for necessary information in the literature

PEU_K02 understands the need for systematic and independent work on mastery of course material.

PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec 1	Absolute value; equations and inequalities. Geometric interpretation. Economy based examples.	2
Lec 2	Polynomials and rational functions; equations and inequalities. Graphical interpretation.	2
Lec 3	Exponential and logarithmic functions. Natural logarithm. Graphs of functions. Simplifying algebraic expressions involving exponentials and logarithms. Economy based examples.	2
Lec 4	Systems of linear equations. Gaussian elimination method.	4
Lec 5	Limits of sequences, basic properties of limits. Applications of a geometric sequence and arithmetic sequence in economy.	2
Lec 6	Limit of a function. Continuity. Asymptotes. Examples of applications in economy.	2
Lec 7	The derivative of a function; geometric and physical interpretation. Rules of differentiation. Chain rule. Higher order derivatives. Applications in economy.	2
Lec 8	Intervals of monotonicity of a function. Local and global extrema. Intervals of convexity and concavity. Study of graphs of functions.	4
Lec 9	Indefinite integral, definition and basic properties. Indefinite integral of certain classes of functions, including polynomials and exponential functions. Integration by parts and by substitution.	2
Lec 10	Definite integral; definition and basic properties. Geometric interpretation. Connection between definite and indefinite integral.	2
Lec 11	Applications of integral calculus. Area of a flat region.	2
Lec 12	Functions of two or more variables. Partial derivatives; geometrical interpretation. Partial derivatives of composite functions. Local extrema of functions of two variables. Applications in economy.	4
	Total hours	30

Form of classes – Exercise class		Number of hours
Ex 1	Absolute value: solving equations and inequalities.	2
Ex 2	Decomposition of a polynomial into irreducible components. Solving polynomial and rational (functions) equations and inequalities.	2
Ex 3	Equations and inequalities with exponential and logarithmic functions.	2
Ex 4	Finding inverse matrices. Solving systems of linear equations using matricial methods.	4
Ex 5	Computing proper and improper limits of sequences.	2
Ex 6	Computing proper and improper limits of functions. Asymptotes. Verifying continuity of functions.	2
Ex 7	Computing derivatives of various functions using rules of differentiation. Tangent line to the graph.	2
Ex 8	Determining local and global extrema of a function. Examination of a function.	4
Ex 9	Indefinite integral of elementary functions, including polynomials and exponentials. Integration by parts and by substitution.	2
Ex 10	Calculating definite integrals. Area of a flat region as an application of definite integral.	2
Ex 11	Calculating partial derivatives. Finding local and global extrema of functions of two variables.	2
Ex 12	Tests	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture – traditional method N2. Exercise class – traditional method (problems sessions and discussion) N3. Office hours N4. Student's individual work – preparation for the classes		

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation F – forming (during semester), P – final (end of semester)	Educational effect number	Way of evaluating educational effect achievement
F - Ex	PEU_U01-PEU_U04 PEU_K01-PEU_K02	oral presentations, quizzes, tests
F - Lec	PEU_W01-PEU_W04 PEU_K02	Exam
P	PEU_U01-PEU_U04 PEU_W01-PEU_W04 PEU_K01-PEU_K02	Rules set by the lecturer

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] T. Bednarski, Elementy matematyki w naukach ekonomicznych, Oficyna Ekonomiczna, Kraków 2004. [2] M. Zakrzewski, Markowe wykłady z matematyki. Analiza. Oficyna Wydawnicza GiS, Wrocław 2013. [3] J. Banaś, Podstawy matematyki dla ekonomistów, WNT, Warszawa 2005. [4] T. Jurlewicz, Z. Skoczylas, Algebra liniowa 1. Definicje, twierdzenia, wzory, Oficyna Wydawnicza GiS, Wrocław 2007. [5] T. Jurlewicz, Z. Skoczylas, Algebra liniowa 1. Przykłady i zadania, Oficyna Wydawnicza GiS, Wrocław 2007. [6] M. Gewert, Z. Skoczylas, Analiza matematyczna 1. Definicje, twierdzenia, wzory, Oficyna Wydawnicza GiS, Wrocław 2007. [7] M. Gewert, Z. Skoczylas, Analiza matematyczna 1. Przykłady i zadania, Oficyna Wydawnicza GiS, Wrocław 2007. <u>SECONDARY LITERATURE:</u> [1] A. C. Chiang, Podstawy ekonomii matematycznej, PWE, Warszawa 1994. [2] M. Dobija, W. Smaga, Podstawy matematyki finansowej i ubezpieczeniowej, PWN, Warszawa-Kraków 1995. [3] A. Ostoja-Ostaszewski, Matematyka w ekonomii-modele i metody 1. Elementarny rachunek różniczkowy, PWN, Warszawa 1996. [4] A. Ostoja-Ostaszewski, Matematyka w ekonomii-modele i metody 1. Algebra elementarna, PWN, Warszawa 1996
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) dr hab. Maciej Wilczyński (Maciej.Wilczynski@pwr.edu.pl) dr hab. Jacek Serafin (serafin@pwr.edu.pl) Wydziałowa komisja programowa ds. kursów ogólnouczeniowych

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Matematyka Ekonomiczna****Name of subject in English: Mathematical Economics****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0119****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 (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)	1.0	0.5			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Calculus
2. Linear Algebra
3. The basics of probability theory

SUBJECT OBJECTIVES

C1 Learning the mathematical methods used in economics and management science

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01

Has knowledge of mathematical methods used in economics and management

PEU_W02

Has knowledge of simple mathematical modeling in the field of decision theory

relating to skills:

PEU_U01

Can apply the formal mathematical apparatus to problems in the field of economics and management

relating to social competences:

PEU_K01 Is aware of the advantages and disadvantages of mathematical models in economics and management.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction to the class and discussion of assessment rules. Problem of optimal ordering – newsvendor’s principle	4
Lec 2	Insurance premiums and rules for calculating premiums	4
Lec 3	Individual and collective risk models	4
Lec 4	Classical risk process and ruin probability	4
Lec 5	Markovitz theory of portfolio	
Lec 6	Capital asset pricing model	4
Lec 7	Discrete financial models – derivative pricing	4
Lec 8	Final test	2
	Total hours	30

Classes		Number of hours
Cl 1	Problem of optimal ordering – newsvendor’s principle	2
Cl 2	Insurance premiums and rules for calculating premiums	1
Cl 3	Individual and collective risk models	2
Cl 4	Classical risk process and ruin probability	2
Cl 5	Markovitz theory of portfolio	3
Cl 6	Capital asset pricing model	1
Cl 7	Discrete financial models – derivative pricing	2
Cl 8	Final test	2
	Total hours	15

TEACHING TOOLS USED

N1. Multimedia presentations
 N2. Solving examples step by step
 N3. List of exercises tasks
 N4. Homework list

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	Solving problems by students during exercises
F2	PEU_U02	Test during classes

F3	PEU_W01, PEU_W02	Final test
P (lecture)= F3		
P(classes)= 0,5 * F1 + 0,5 * F2		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Panek E.: Ekonomia Matematyczna, Akademia Ekonomiczna, Poznań, 2003		
[2] Bean M.A.: Probability: The Science of Uncertainty with Applications to Investments, Insurance, and Engineering, AMS, 2001		
[3] Kansas St.: Podstawy Ekonomii Matematycznej, PWN, Warszawa 2011		
[4] Jakubowski J.: Modelowanie rynków finansowych, Script, 2006		
<u>SECONDARY LITERATURE:</u>		
[1] P. A. Samuelson: Ekonomia, 2004		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Zbigniew Michna, zbigniew.michna@pwr.edu.pl		
Elżbieta Jasińska, elzbieta.jasińska@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Metody i narzędzia podejmowania decyzji****Name in English: Methods and Tools of Data Analysis****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0133****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)	25		50		
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)	0,6		0,6		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. has basic knowledge of business management and decision-making process. Has a general understanding of the concepts and application of information technology in management. Knows commonly used office software tools and their application in management. Has basic knowledge of descriptive statistics.
2. knows the basics of building simple software tools to solve management problems, especially decision making.
3. has basic skills in building simple software tools to solve management problems, especially in the area of relational database management system (SQL), spreadsheets and using a selected package for statistical analysis at an elementary level

SUBJECT OBJECTIVES

C1. To acquire knowledge of problems, methods and tools for recognizing, capturing, storing and sharing multidimensional data in enterprise decision-making processes and to understand the role of information systems as tools in the decision-making process and to identify information requirements for these systems.

C2. Master skills in selecting and applying decision support methods and building decision-making

models in an enterprise information systems environment, identifying information requirements to these systems and solving models using selected analytical methods.

C3. To acquire social competences in the field of information and communication techniques in management; specific to team decision preparation processes taking place in the environment of management information systems.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01: Student has a basic knowledge of the construction and application of selected mathematical and information technology tools in organizational decision making in the environment of management information systems, databases and data warehouses..

PEU_W02: Student has a basic knowledge of how to build and apply selected business intelligence systems in organizational decision making.

relating to skills:

PEU_U01: Student is able to identify and analyze the needs of selected decision makers in obtaining and analyzing data in the decision making process in an environment of management information systems, databases and data warehouses, and selected business intelligence systems.

PEU_U02: Student is able to create selected models for solving decision-making problems in the environment of management information systems, databases and data warehouses and selected business intelligence systems, and solve them using selected methods and decision-making tools.

relating to social competences:

PEU_K01: Student is able to independently develop their knowledge and skills, interact and work in teams, demonstrates a willingness to identify, analyze and solve problems in the identification and analysis of decision-making problems, create and solve decision-making models in the management information systems environment.

PEU_K02: Student can professionally search and select methods of solving decision-making problems, take responsibility for them, communicate, persuade and defend own views related to selection and application of mathematical and IT methods and tools in decision-making.

PROGRAMME CONTENT

Form of classes – lecture		Number of hours
Lec 1	Introduction to the class and discussion of assessment rules. Introduction to enterprise decision making in a management information systems environment. Multidimensional data in decision-making processes.	1
Lec 2	Classification of methods and tools of decision support in an enterprise	1
Lec 3	Multivariate analysis in decision making - examples of practical applications in business.	1
Lec 4	Multivariate analysis methods in decision making.	2
Lec 5	IT tools for collecting and processing operational data - OLTP databases.	2
Lec 6	IT tools for management data collection and processing - data warehouses	2

Lec 7	OLAP analyses in a relational database environment	2
Lec 8	Applications of selected data analysis (data mining) techniques in management - decision trees.	2
Lec 9	Written test.	2
	Total hours	15
Form of classes – class		Number of hours
Form of classes – laboratory		Number of hours
Lab 1	Introduction to the class and discussion of assessment rules. Introduction to multidimensional data analysis. Fundamentals of using databases and data warehouses. Familiarization with a specific data warehouse supporting a minimarket holding company . Identifying, extracting, storing, and sharing multidimensional data in decision making.	2
Lab 2	Analysis of basic structures in data warehouses: snowflake and star structure.	1
Lab 3	Elements of decision analysis (OLAP) - create aggregate queries using descriptive statistics and algorithms to help analyze data to answer basic management questions	2
Lab 4	Elements of decision analysis (OLAP) - creation of queries and algorithms supporting multi-criteria analysis of decisions concerning building of customer ranking	2
Lab 5	Teamwork: construction of data mining of sales factors and facts from a data warehouse to construct a decision tree	2
Lab 6	Team work: construction of a decision tree, construction of an algorithm for the node splitting criterion (weighted variance)	2
Lab 7	Team work: solving a decision tree model and drawing conclusions about sales facts depending on the analyzed factors. Presentation of conclusions.	2
Lab 8	Credit for project work	2
	Total hours	15
TEACHING TOOLS USED		
N1. Lecture N2. Multimedia presentation N3. Laboratory instruction N4. Instruction during classes N5. Group discussion during classes N6. Online educational group discussion N7. Workstation with graphical operation system MS Windows and MS Access N8. Preparation of analysis report N9. Written test		

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during	Educational effect number	Way of evaluating educational effect achievement

semester), P – concluding (at semester end)		
F1	PEU_U01, PEU_U02	Evaluation of project milestones
F2	PEU_K01, PEU_K02	Evaluation of attendance, teamwork, and discussion of project results
P1	PEU_W01, PEU_W02	Written test on the lecture
$P2=0,75 \cdot F1 + 0,25 \cdot F2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Foreman J.W. Mistrz analizy danych. Od danych do wiedzy, Wyd. Helion, 2019		
[2] Knight G., Excel. Analiza danych biznesowych. Wyd. HELION, Gliwice, 2006.		
[3] Larose D.T., Odkrywanie wiedzy z danych. Wprowadzenie do eksploracji danych. , Wyd. Nauk. PWN, Warszawa 2006		
[4] Surma J., Business intelligence , PWN, Warszawa, 2009		
[5] Todman Ch., Projektowanie hurtowni danych, Wyd. WN-T, 2003.		
<u>SECONDARY LITERATURE:</u>		
[1] Czermiński A., Czermiński J., Łatowska A., Teoria i praktyka podejmowania decyzji kierowniczych, Wyd. Tonik, Toruń, 2001.		
[2] Konarzewska-Gubała E., Programowanie przy wielorakości celów, Wyd. PWN, 1980.		
[3] Kwiatkowska A., Systemy wspomagania decyzji. Jak korzystać z wiedzy i informacji, Wyd. Nauk. PWN, Warszawa 2007.		
[4] Poe V., Klauer P., Brobst S., Tworzenie hurtowni danych, WN-T, 2000		
[5] Radościński E., Systemy informatyczne w dynamicznej analizie decyzyjnej, Wyd. PWN, 2001.		
[6] Sej-Kolasa M., Zielińska A., Excel w statystyce, Wyd.. AE, Wrocław, 2004, ss. 112-141		
[7] Sobczyk M., Statystyka, Wyd. Nauk. PWN, Warszawa, 2007.		
[8] Twardowska K., Łodyga P., Modele zarządzania wspomaganie Excelem, OW Politechniki Warszawskiej, 2003, ss. 19-32		
[9] Urban W., Siemieniako D., Lojalność klientów, PWN, Warszawa, 2008.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Leopold Szczurowski; e-mail: leopold.szczurowski@pwr.edu.pl		
Anna Skowrońska-Szmer; e-mail: anna.skowronska-szmer@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: METODY I TECHNIKI ORGANIZATORSKIE****Name of subject in English: ORGANIZATIONAL METHODS AND TECHNIQUES****Main field of study (if applicable): MANAGEMENT****Specialization (if applicable): BUSINESS MANAGEMENT****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0134****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)	25	25			
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)	0,6	0,6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of basic issues in the field of management, business management.
2. Having general knowledge in the field of management techniques, methods and concepts.
3. Ability to work in a team, discuss and present one's own opinion in the aspect of problems solved.

SUBJECT OBJECTIVES

- C1 - presentation of knowledge about organizational methods and techniques;
 C2 - determining the usefulness of organizational methods and techniques in managing and managing the organization;
 C3 - developing the ability to recognize organizational problems that require the use of effective solution methods;
 C4 - mastering the methodology of using organizational methods and techniques as tools for practical solving organizational problems;
 C5 - the use of selected organizational methods and techniques in finding solutions to complex organizational problems;
 C6 - presenting the principles of organization of the working team to develop a specific management decision and control its work.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01- define the basic concepts of organizational methods and techniques;

PEU_W02 - understand the theoretical foundations of using organizational methods and techniques in

organizations;

Relating to skills:

PEU_U01 - determine the usefulness of organizing methods and techniques in managing a human team;

PEU_U02 - knows how to recognize and classify decision problems requiring the use of effective methods;

Relating to social competences:

PEU_K01- apply selected organizational methods and techniques in finding solutions to complex organizational problems;

PEU_K02- works in a team and is able to manage the team's work using knowledge of organizational methods and techniques;

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational issues.	1
Lec 2	Organizational methods and techniques in organization and management science: a synthetic discussion of the main currents, schools and approaches in organization and management science; organizational methods and techniques - basic concepts; classifications of organizational methods and techniques.	2
Lec 3	Methodology of problem solving in the organization I: characteristics of the problem-solving identification process, problem identification techniques	2
Lec 4	Methodology of problem solving in the organization II: techniques for investigating the causes of problems, techniques that activate creative thinking	2
Lec 5	Methodology for solving problems in the organization III: using a decision tree to make decisions in conditions of uncertainty, techniques for assessing solutions and making decisions	2
Lec 6	Methodology of network thinking: theoretical foundations, phases, analysis of interactions, understanding and interpreting the possibility of changing situations, explaining the possibilities of managing change, planning strategies and actions, putting the problem into effect	2
Lec 7	Techniques of designing interaction in the organization, benchmarking, virtual organization	2
Lec 8	Profile of the manager - organizer's specialist: efficiency of operation; methods to improve managerial work. Pass a subject.	2
	Total hours	15
Classes		Number of hours
Cl 1	Organizational issuer. Selection of test object, characteristics of the selected organization / enterprise (according to Leavitt's model of organization description).	2
Cl 2	Analysis and diagnosis of a selected research area - diagnosis of the state, identification of the most important problems of the examined organization / enterprise, area.	2
Cl 3	Formulation of the selected (solved) organizational problem - general and detailed. Selection, justification and description of the organizational method or technique used to solve the identified, selected organizational problem.	2
Cl 4	The use of a selected method, organizational technique to solve the selected organizational problem (implementation of the research procedure).	2
Cl 5	Characteristics of solution variants. Assessment and selection of solution variants.	2
Cl 6	Implementing changes in the organization, designing improvements, implementation method, expected effects. Conclusions and final comments.	2

Cl 7	Presentations and discussions of suggested procedures and solutions obtained by individual groups of students.	2
Cl 8	Presentations and discussions of suggested procedures and solutions obtained by individual groups of students. Examination.	1
	Total hours	15

TEACHING TOOLS USED

N1. Lecture - multimedia presentation
N2. Classes - group work completed with a case study

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	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01 PEU_K02	Team project
F2	PEU_W01 PEU_W02	Knowledge test, written (final test)
$P = F1 * 0,6 + F2 * 0,4$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Błaszczyk W. (red.) (2005), Metody organizacji i zarządzania. Kształtowanie relacji organizacyjnych., Wydawnictwo Naukowe PWN, Warszawa.
- [2] Gogłóza W., Ksiński K. (2013), Historia myśli organizatorskiej. Zarys wykładu., Difin, Warszawa.
- [3] Hamrol A. (2015), Strategie i praktyki sprawnego działania. Lean. Six Sigma, Wydawnictwo Naukowe PWN, Warszawa.

SECONDARY LITERATURE:

- [1] Mikołajczyk Z. (2002), Techniki organizatorskie w rozwiązywaniu problemów zarządzania, Wydawnictwo Naukowe PWN, Warszawa.
- [2] Skalik J. (red.) (2001), Metody i techniki organizatorskie, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław
- [3] Zimniewicz K. (2009), Współczesne Koncepcje i metody zarządzania, PWE Polskie Wydawnictwo Ekonomiczne, Warszawa.
- [4] Kosieradzka A. (red.) (2013), Metody i techniki pobudzania kreatywności w organizacji i zarządzaniu, Edu-Libri, Kraków-Warszawa.
- [5] Łasiński G. (2007), Rozwiązywanie Problemów w Organizacji, PWE Polskie Wydawnictwo Ekonomiczne, Warszawa.
- [6] Nęcka E. (1994), Trop twórcze rozwiązywanie problemów, Impuls, Kraków.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Brdulak, anna.brdulak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Metody i techniki zarządzania projektami****Name of subject in English: Project Management Methods and Technics****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0150****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)	0,6			1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Fundamentals of project management

SUBJECT OBJECTIVES

C1 To provide students with knowledge about selected project management methodologies

C2 To give students the skills of using selected project management methods, techniques and tools

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student knows selected project management methodologies

relating to skills:

PEU_U01 Student can practically apply the known methods, techniques and tools of project management

relating to social competences:

PEU_K01 Students are aware of the importance of teamwork and are able to work in a team

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	PMI Methodology (part 1)	2
Lec 2	PMI Methodology (part 2)	2
Lec 3	PRINCE 2 Methodology	2
Lec 4	IPMA Methodology (part 1)	2
Lec 5	IPMA Methodology (part 2)	2
Lec 6	SCRUM Methodology	2
Lec 7	KANBAN Methodology, SCRUMBAN Methodology	2
Lec 8	Test	1
	Total hours	15

Project		Number of hours
Proj 1	Introduction, discussion of the scope and objectives of the course, literature, principles of work, division into project teams	2
Proj 2	Traditional project management - case study	2
Proj 3	Traditional project management - team work on the selected project (planning process) - part 1	2
Proj 4	Traditional project management - team work on the selected project (planning process) - part 2	2
Proj 5	Traditional Project Management - team work on the selected project (Planning Process) - Part 3	2
Proj 6	Traditional project management - team work on the selected project (planning process) - part 4	2
Proj 7	Traditional project management - team work on the selected project (planning process) - part 5	2
Proj 8	Agile project management - case study	2
Proj 9	Agile project management - working on a project indicated by the lecturer (planning process) - part 1	2
Proj 10	Agile project management - working on a project indicated by the lecturer (planning process) - part 2	2
Proj 11	Agile project management - working on a project indicated by the lecturer (planning process) - part 3	2
Proj 12	KANBAN - case study	2
Proj 13	KANBAN - working on a project indicated by the lecturer	2
Proj 14	Presentations - reporting of results	2
Proj 15	Presentations - reporting of results	2
	Total hours	30

TEACHING TOOLS USED
N1 Multimedia presentation
N2 Case studies
N3 Group work completed with presentation of results
N4 Discussion
N5 Selected IT tools supporting project management

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_K01	Activity
F2	PEU_U01 PEU_K01	Quality of teamwork
F3	PEU_W01 PEU_U01 PEU_K01	Presentation - reporting of results
F4	PEU_W01 PEU_U01	Test
P (wykład) = F4		
P (projekt) = 0,1*F1 + 0,2*F2 + 0,7*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Schwaber K., Sutherland J., The Scrum Guide, 2020 [2] Trocki M., Metodyki i standardy zarządzania projektami, Polskie Wydawnictwo Ekonomiczne, Warszawa 2017
<u>SECONDARY LITERATURE:</u> [1] Hammarberg M., Sunden J., Kanban: zobacz, jak skutecznie zarządzać pracą, Helion, Gliwice 2015 [2] Kaczor K., SCRUM i nie tylko. Teoria i praktyka w metodach Agile, Wyd. PWN, Warszawa 2014 [3] PMBOK Guide 6th Edition, Project Management Institute 2017 [4] Polskie Wytoczne Kompetencji IPMA (National Competence Baseline - NCB), wersja 4.0 [5] PRINCE2 - Skuteczne zarządzanie projektami, Axelos 2017 [6] Stellman A., Agile: przewodnik po zwinnych metodykach programowania, Helion, Gliwice 2015
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
dr hab. inż. Agata Klaus-Rosińska, prof. uczelni agata.klaus-rosinska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Mikroekonomia****Name of subject in English: Microeconomics****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0100****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)	75	50			
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)	1,2	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites

SUBJECT OBJECTIVES

C1 Explains the nature and place of economic sciences in the system of sciences and their relations with other social and technical sciences. Explains the origins and evolution of economic science in the context of economic schools.

C2 Explain the microeconomic theory in economy and explain basic economic concepts and laws relevant to optimal economic decision-making by market entities (consumers and producers).

C3 Creation of skills to identify and analyze microeconomics environmental factors of an enterprise in the substantial and regulation dimensions in relation to the implemented economic policy and Creation of skills to interpret and to make cause - and - effect conclusions on the bases of the observed market phenomena by using the studied definitions, laws, and economic relationships.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 know about the place of economics in science system and its substantial and methodological

relationships with other of science; know tools and stages of economic research and characterize major schools of economic theory,
 PEU_W02 know the conditions, terms, and economic laws connected with consumer decisions and producer decision on the different market structures,
 PEU_W03 know fundamental economic and regulation tools as well as their influence on the decisions of market entities.

relating to skills:

PEU_U01 know and are able to use the economic terms in the correctly way as well as to calculate basic economic relationships (including indexes) and are able to interpret them,
 PEU_U02 understands and is able to use economic, theoretical knowledge, and other science related to other disciplines in order to analyze and interpret economic problems in the microeconomics scale.
 Know and be able to use known methods of economic analysis (e.g. marginal analysis)
 PEU_U03 possess the skills to identify, understand, and analyze microeconomic environment factors and their influence on market mechanism, market structure, and economic decisions of market subjects, namely consumers and producers.

relating to social competences:

PEU_K01 be able to dispute about possible, practical solutions of economy in the microscale; be able to justify their opinion by using known definitions and economic laws,
 PEU_K02 be able to independently develop knowledge of microeconomic issues and improve analytical skills.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Organizational Economics as science. Range, aims, and research tools. Fundamental terms connected with economics and economy. Types and typical classes of indexes and measures used in economics.	2
Lec 2	Economy process and the decision problem in economics - the rationality of action. Production possibility frontier (type of choice: “something for something”) and opportunity cost. Fundamental economic law in the short –run (law of increasing opportunity cost, total and marginal product, the law of diminishing product). Production possibility frontier and short-run and long-run decisions. Rules of decision optimization.	2
Lec 3	Types of economy. Market end market economy. Elements of the market and market failures according to different schools of economics.	2
Lec. 4	Demand and its factors and demand law. Supply and its factors and supply law.	1
Lec. 5	Reaction of demand to fluctuation of price and income (price elasticity of demand (point and arc elasticity), income elasticity of demand (kinds of goods: inferior, necessary, normal, luxury; Engel’s law and curve), cross price elasticity of demand (goods: substitutes, complementary, neutral). Supply price elasticity.	2
Lec. 6	Market mechanism. Price and its functions in the market economy. Ceiling and floor prices and their short-run and long-run effects.	2
Lec. 7	The theory of customers' choice (utility theory, budget constraint and budget line, indifference curve, marginal rate of substitution, income-consumption curve, substitution effect and income effect in relation to law of demand, Gossen’s laws, individual demand function. Consumer preferences in relation to cash and item transfers.	2
Lec. 8	Introduction to supply theory. Enterprises and its function in the economy. Classification of legal forms of businesses.	1

Lec. 9	Economic approach to classifying business costs. Book and economic account. Economic profit: zero profit point, above-normal profit.	1
Lec. 10	Optimal production level in business, production theory. The choice of optimal input combination in the short- and long-run. Marginal rate of technical substitution.	2
Lec. 11	Costs in business and optimal level of production in the short run. Economic laws addressed to short-run costs. Golden rule.	2
Lec. 12	Costs in business and optimal level of production in long-run. Economies of production scale.	2
Lec. 13	Market structures and their characteristics. Factors influencing the structure of the market. Perfect competition.	2
Lec. 14	Monopolistic competition and oligopoly. Monopoly (government and natural).	3
Lec. 15	Risk and information.	2
Lec. 16	Major Schools of Economic Theory (e.g. Physiocrats, Mercantilists, Classical School, Marginalist School, Institutionalist School, Monetarism, Keynesian School, Austrian School).	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction to classes. Fundamental terms of economics: case studies and exercises.	2
Cl 2	Fundamental problems of economic choices – exercises.	2
Cl 3	Demand and demand law. Supply and supply law – exercises.	2
Cl 4	Market mechanism– case study, discussion, exercises.	1
Cl. 5	Demand reactions on fluctuation of process and income. Supply price elasticity.	3
Cl. 6	Customer choice theory – exercises.	2
Cl. 7	Written test no 1.	1
Cl. 8	Supply theory. Technique and quantity of production - Discussion and exercises.	2
Cl. 9	Short-run costs in enterprise– case study, exercises.	2
Cl. 10	Optimal level of production in short-run - exercises.	2
Cl. 11	Optimal level of production in long run – exercises.	1
Cl. 12	Structure of the market. Optimal level of production in perfect competition exercises.	2
Cl. 13	Structure of the market. Optimal level of production in the monopoly: case study, exercises.	3
Cl. 14	Written test no2	1
Cl. 15	Risk in business: exercises and discussion	2
Cl. 16	Revision test	2
	Total hours	30
TEACHING TOOLS USED		
Lectures N1. Information lectures N2. Multimedia presentations N3. Material published in the e-portal Classes N4. Solving practical tasks (mainly calculation tasks) N5. Discussion		

N6. Working in groups
N7. Homework
N8. Self-directed student work: preparation for classes, preparation for credit, and examination
N9. Analysis of source texts (economic literature, press)
N10. Short written test – 10 minutes

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_U03 PEU_K01, PEU_K02	Activeness in solving exercises during classes (discussion, solving tasks in the class, working in groups)
F2	PEU_U04, PEU_U03	Short written test – 10 minutes
F3	PEU_U01÷PEU_U03	Checking of homework
F4	PEU_U02÷PEU_U03	Written tests
F5	PEU_W01 ÷PEU_W03 PEU_U01÷PEU_U03	Written exam
C (lecture) = F5		
C (classes) = 0,15*F1+0,20*F2+0,15*F3+0,5*F4		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] D. Begg, S. Fischer, R. Dornsbuch, *Makroekonomia*, t.1, PWE, Warszawa 2007.
- [2] B. Czarny, E. Czarny, R. Bartkowiak, R. Rapacki, *Podstawy ekonomii*, PWE, Warszawa 2000 and next.
- [3] N. G. Mankiw, M.P. Taylor, *Mikroekonomia*, Państwowe Wydawnictwo Ekonomiczne, Warszawa 2015.

SECONDARY LITERATURE:

- [4] R. Barczyk, S. Kalinowski, W. Łuczyński, W. Przybylska-Kapuścińska, F. Wiśniewski, *Mikroekonomia. Materiały do ćwiczeń*, Poznań 1997.
- [5] M. Friedman, R. Friedman, *Wolny wybór*, Kraków 1997.
- [6] T. Kątownski, *Podstawowy wykład z mikroekonomii*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2000.
- [7] B. Klimczak, *Mikroekonomia*, Wydawnictwo AE im. Oskara Langego we Wrocławiu, 2006 and next
- [8] W. Kwaśnicki, *Zasady ekonomii rynkowej*, Wrocław 2001.
- [9] *Makro- i mikroekonomia. Podstawowe problemy współczesności*, Marciniak S. (ed.), Wyd. Naukowe PWN, Warszawa 2013.
- [10] R. Milewski (red.), *Podstawy ekonomii*, PWN, Warszawa 2001 i kolejne wydania.
- [11] R. Milewski (ed), *Podstawy ekonomii. Ćwiczenia, zadania, problemy*, PWN, Warszawa 2002 i kolejne wydania.
- [12] P. A. Samuelson, W. D. Nordhaus, *Ekonomia*, PWN, Warszawa 1996.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Edyta Ropuszyńska-Surma, edyta.ropuszynska-surma@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Modele biznesowe przedsiębiorstwa****Name of subject in English: Models of business enterprises****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0162P****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)				125	
Form of crediting				crediting with grade*	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of marketing, marketing management, microeconomics, civil and commercial law

SUBJECT OBJECTIVES

C1 Understanding the essence and mechanisms of business models

C2 Consolidation of knowledge about business models through the diagnosis of cases existing in business practice

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 can explain the essence and differences that characterize business models

PEU_W02 can identify and assess the advantages, disadvantages, conditions for the development of modern business models as well as methods, tools and techniques supporting their creation and development.

relating to skills:

PEU_U01 knows how to identify business models and their components in practical economic situations, using expertise.

PEU_U02 knows how to use the premises of the business model to create tactical plans

relating to social competences:

PEU_K01 is aware of the mechanisms determining the success and failure of business models adopted by enterprises in practice

PEU_K02 is prepare to initiate changes in the workplace and participate in their planning and implementation. He can think and act in an entrepreneurial way.

PROGRAMME CONTENT		
Project		Number of hours
Proj 1	Organizational classes - discussion of the organization of classes and the rules of credit. Contemporary trends in the economy and their role in shaping business models. Business Model Canvas.	2
Proj 2	The concept and types of entrepreneurship and entrepreneurial organizations. External determinants of entrepreneurship. Entrepreneurial competence.	2
Proj 3	The most popular schemes of business models based on examples of well-known companies: construction and assumptions and tools. Business model and its components - identification of business models of selected Polish enterprises and analysis of their key components. Universal business models based on resources and competences - analysis of key enterprise resources from the perspective of business models	2
Proj 4	Traditional and contemporary business models - analysis of the conditions for choosing business models. Mapping and evaluating business models	2
Proj 5	Subscription model, characteristics. The 'hook and bait' model. characteristics. Adequate presentations of examples based on articles from the business press	2
Proj 6	Brokerage, advertising, social model, characteristics. Adequate presentations of examples based on articles from the business press	2
Proj 7	Type model, pioneer, successor and modernizer, characteristics. Adequate presentations of examples based on articles from the business press	2
Proj 8	Franchise model and benchmarking. Adequate presentations of examples based on articles from the business press	2
Proj 7	Type model, pioneer, successor and modernizer, characteristics. Adequate presentations of examples based on articles from the business press	2
Proj 8	Franchise model and benchmarking. Adequate presentations of examples based on articles from the business press	2
Proj 9	Creating creative ideas for a new business. Searching for market niches.	2
Proj 10	Presentation of business model components in own business project I. Comments on current economic problems	2
Proj 11	Presentation of business model components in your own business idea II. Comments on current economic problems	2
Proj 12	Presentation of the summary business plan I. Comments on current economic problems	2
Proj 13	Presentation of the summary business plan II. Comments on current economic problems	2
Proj 14	Project consultations. Comments on current economic problems .	2
Proj 15	Summary and acceptance of design work	2
	Total hours	30

TEACHING TOOLS USED
N1 group presentation N2 activity N3 individual and group tasks N4 report- written work describing the model and business plan

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	evaluation of the report
F2	PEU_U01, PEU_U02; PEU_K01, PEU_K02	evaluation of the activity
F3	PEU_U01, PEU_U02; PEU_K01, PEU_K02	assessment of individual and group tasks
F4	PEU_U01, PEU_U02; PEU_K01, PEU_K02	evaluation of the activity
$P=0,25 \cdot F1 + 0,25 \cdot F2 + 0,25 \cdot F3 + 0,25 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u>
[1] Osterwalder A., Pigneur Y. (2012), Tworzenie modeli biznesowych. Podręcznik wizjonera, One Press, Warszawa
[2] Pijl van der P., Lokitz J., Solomon L.K. (2018), Nowoczesne projektowanie modeli biznesowych, Wyd. Helion, Gliwice.
[3] Nowoczesne projektowanie modeli biznesowych. Narzędzia, kompetencje, mentalność i innowacje, które zapewnią firmie sukces, (opracowanie zbiorowe), (2018), Wydawnictwo Onepress, Gliwice
<u>SECONDARY LITERATURE:</u>
[1] Koziół-Nadolna K., Czerniachowicz B., Beyer K., Leoński W. (2019), Formy działania i modele biznesowe współczesnych organizacji, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin.
[2] Muehlhausen J., (2018), Modele biznesowe dla bystrzaków, Wyd. Helion, Gliwice
[3] Olsen D., (2018), Metoda Lean Product, Wyd. Helion, Gliwice
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Mirosława Krzyścin, mirosława.krzyscin@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Monitorowanie kondycji finansowej w przedsiębiorstwie****Name of subject in English: Monitoring the financial condition of a company****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0090P****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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of corporate finance and management of economic organizations.
2. Ability to operate MS Office package.

SUBJECT OBJECTIVES

C1 Practical application of general knowledge of financial and synthetic analysis.

C2 Verification of the ability to select indicators for the system of monitoring the financial condition of an enterprise, to formulate conclusions in the evaluation of this system and the directions of its improvement.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows the basic methods and techniques used to monitor the financial condition of the company

relating to skills:

PEU_U01 Is able to apply in practice theoretical and methodological solutions in the field of monitoring financial condition in an enterprise.

PEU_U02 Can use financial reporting as a source of knowledge for assessing the financial

condition of enterprises.
relating to social competences:
PEU_K01 Is able to independently develop their knowledge and skills, interact and work in teams, shows readiness to identify, analyse and solve problems of monitoring financial condition in enterprise.
PEU_K02 Is able to search in a professional way and select methods of problem solving, take responsibility for them, communicate, convince and defend own views related to monitoring financial condition in enterprise.

PROGRAMME CONTENT

Project		Number of hours
Pr 1	Define the purpose of the project, requirements for design documentation. Discussion of design tasks.	2
Pr 2	Consult on the scope and method of monitoring financial health in a company in terms of liquidity analysis.	2
Pr 3	Consult on the scope and method of monitoring financial condition in an enterprise in terms of profitability analysis.	2
Pr 4	Consult on the scope and method of monitoring financial condition in the enterprise in the field of asset-capital situation analysis.	2
Pr 5	Consult on the scope and method of monitoring financial health in the enterprise in terms of market position analysis.	2
Pr 6	Consult on the scope and method of monitoring financial health in a company using bankruptcy prediction models.	2
Pr 7	Plenary session. Presentation, analysis and evaluation of project topics proposed by project groups.	4
Pr 8	Consultation of substantive and methodological problems related to the selection of a tool to build a system for monitoring the financial condition of an enterprise.	2
Pr 9	Consultation of substantive and methodological problems connected with the functionality of the company's financial condition monitoring system	2
Pr 10	Consultation of substantive and methodological problems connected with the selection of indicators and models of bankruptcy prediction for the system of monitoring the enterprise's financial condition 2	2
Pr 11	Consultation of substantive and methodological problems connected with the report generation by the system of monitoring the financial condition of the enterprise.	2
Pr 12	Plenary session. Presentation, analysis and evaluation of solutions proposed by project groups.	4
Pr 13	Summary. Assessment.	2
	Total hours	30

TEACHING TOOLS USED

N1. Discussions
N2. Case study
N3. Group work ended with the presentation of the results

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	Marking of the quality of the "Submission of the topic of the project work". (max. 10 points) and its presentation at session 1 (max. 10 points).
F2	PEU_W01, PEU_U01, PEU_U02	Assessment of the quality of the "Written report". (max. 50 points), the quality of the project defence (max. 15 points).
F3	PEU_W01, PEU_U01, PEU_U02, PEU_K01, PEU_K02	Assessment of the authors' independence, maturity, attendance, participation in discussions (max. 15 points).
$P = 0,2 \cdot F1 + 0,65 \cdot F2 + 0,15 \cdot F3$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Bławat, F., Drajska, E., Figura, P., Gawrycka, M., Korol, T., & Prusak, B., Analiza finansowa przedsiębiorstwa: Ocena sprawozdań finansowych, analiza wskaźnikowa, Wyd. CeDeWu 2017. [2] Zaleska, M., Ocena kondycji finansowej przedsiębiorstwa przez analityka bankowego. Wyd. SGH, 2012. [3] Radościński E., Wprowadzenie do sprawozdawczości, analizy i informatyki finansowej, Wyd. PWN 2010.		
<u>SECONDARY LITERATURE:</u>		
[4] Kowalak R., Ocena kondycji finansowej przedsiębiorstwa, Wyd. ODDK, 2008. [5] Prusak B., Nowoczesne metody prognozowania zagrożenia finansowego przedsiębiorstw, Wyd. Difin 2005. [6] Korol T., Systemy ostrzegania przedsiębiorstw przed ryzykiem upadłości, Wyd. A Wolters Kluwer business 2010.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
dr Sebastian Tomczak, sebastian.tomczak@pwr.edu.pl dr Joanna Kott, joanna.kott@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Narzędzia badań społecznych**Name of subject in English:** Social research tools**Main field of study (if applicable):** Management**Specialization (if applicable):** Business management**Profile:** academic**Level and form of studies:** 1st/ level, part-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL0112S**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 (P) classes					3
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of psychology

SUBJECT OBJECTIVES

C1 Getting the student's basic knowledge about the area of social studies, their content, process and methodology.

C2 Demonstrate to the students the process of research planning, research techniques and tools used in the field of social sciences.

C3 Acquire the skills to plan and conduct research, create and select the optimal research tools and efficient use of the data

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 - he knows the basic methods, techniques and research tools in the area of organizational phenomena for solving managerial problems.

relating to skills:

PEU_U01 - he has elementary research skills allowing to analyze research examples and conduct simple research in the field of management sciences; he is able to formulate conclusions, develop and present the results and indicate the directions of further research. He is able to properly pose research questions, define the purpose of the research, select a sample, tools, analyzes and draw conclusions from the collected data.

relating to social competencies:

PEU_K01 - he is ready to identify and solve research problems in the social and organizational area.

PROGRAM CONTENT

Seminar		Number of hours
Se 1	The specificity of the research process.Presentation of the purpose of seminar and criteria of student evaluation.	2
Se 2	Planning of the research process.	2
Se 3	Classifications of paradigms and research methods	2
Se 4	Quantitative vs qualitative research	2
Se 5	Observation methods - assumptions, examples and applications	2
Se 6	Experimental methods - assumptions, examples and applications	2
Se 7	Individual and group interview methods	2
Se 8	Questionnaire and survey methods - assumptions, examples and applications	2
Se 9	Variables, indicators, questions and types of measurement scale. Limitations and risks of research in questionnaire tools.	2
Se 10	Development of social research tool. Types of questions and their diagnostic significance.	2
Se11	Features of questions from the cognitive and mechanism to respond to questions. The order of the questions in the questionnaire. Filter questions.	2
Se12	Development of social research tool. Basic biases in the question formulating.	2
Se13	Critical analysis and verification of the correctness of the research tool.	2
Se14	Development and interpretation of the results of the survey research	2
Se15	A summary of seminar	2
	Total hours	30

TEACHING TOOLS USED

N1. Discussion
N2. Exercises in groups
N3. 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
F1	PEU_W01, PEU_U01, PEU_K01	Task 1 (Reserach designing)
F2	PEU_W01, PEU_U01, PEU_K01	Task 2 (devepment of research tool)
F3	PEU_W01, PEU_U01, PEU_K01	Activity during classes and discussions
$P = F1*0.4 + F2*0.4 + F3*0.2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Babbie, Earl (2008). <i>Podstawy badań społecznych</i> . Warszawa, PWN [2] Nowak S. 2010, <i>Metodologia badań społecznych</i> , PWN [3] Gruszczyński, Gruszczyński Leszek A.. <i>Kwestionariusz w socjologii. Budowa narzędzi do badań surveyowych</i> . Wydawnictwo Uniwersytetu Śląskiego.		
<u>SECONDARY LITERATURE:</u> [1] Creswell J. W., (2013), <i>Projektowanie badań naukowych. Metody jakościowe, ilościowe i mieszane</i> , Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków. [2] Maison, Dominika, Noga-Bogomilski, Artur (2004), <i>Badania marketingowe</i> . Sopot, GWP. [3] Brzeziński, Jerzy (2006). <i>Metodologia badań psychologicznych</i> . Warszawa, PWN [4] Maison Dominika. (2000). <i>Zogniskowane wywiady grupowe. Jakościowa metoda badań marketingowych</i> . Warszawa: Wydawnictwo Naukowe PWN		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Beata Bajcar, beata.bajcar@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Nauka o Organizacji****Name in English: Organizational Science****Main field of study (if applicable):: BUSINESS****Specialization (if applicable): BUSINESS MANAGEMENT****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code W08ZZZ-SL0103****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)	50				25
Form of crediting	credit with a grade				credit with a 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 for direct teacher-student contact (BK) classes	1,2				0,6

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

To ensure fundamental knowledge (including application aspects) and skills about:

C1. types of organizations and their organizational and legal forms and the impact of the environment on organizational activity, taking global (including intercultural) conditions into account

C2. the characteristics of organizations in various stages of development and the dynamics of organization development

C3. the development of the science of management and organization also the basic problems of management

SUBJECT LEARNING EFFECTS

relating to knowledge:

PEU_W01 - has a basic knowledge of the development of the theory of organization and management

PEU_W02 - has basic knowledge about types, features, elements, types and forms of organizations and about processes and functions of management

PEU_W03 - explains and illustrates (at basic level) interorganizational relations and influence of environment on organization activity

PEU_W04 - identifies basic problems of management taking into account various phases of organization life cycle

relating to skills:

PEU_U01 - can, at a basic level, analyze and evaluate the objectives, characteristics, elements, processes and functional areas of an organization

PEU_U02 - at the basic level can analyze and evaluate internal and interorganizational relations

PEU_U03 - can identify and analyze typical management problems using and integrating information from various sources

relating to social competences:

PEK_K01 - is aware of the need to develop knowledge and skills in the science of organization and management

PEK_K02 - is aware that manager's work is to continuously identify, analyze and resolve issues in organizations and to implement organizational changes

PEK_K03 - is aware of the necessity of individual and team activity in work organization

PEU_K04 – is aware that manager's work requires compliance with certain professional and ethical standards

PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec1	Organizational information. The essence of organizational science	2
Lec2	Theories of organization and the science of organization	2
Lec3	Types and kinds of organizations and their objectives	2
Lec4	Tangible and intangible resources of the organization	2
Lec5	Organization as an object of research	2
Lec6	Entrepreneurship and innovation	2
Lec7	Mid-term test	2
Lec8-9	Contemporary management problems and trends in the development of enterprises	4
Lec10	Future organizations	2
Lec11-12	Ethics in business	4
Lec13-14	Corporate Social Responsibility	4
Lec15	Summary and test	2
	Total hours	30

Form of classes - seminar		Number of hours
S1	Introduction to organizational science classes	1
S2	Starting a business - organizational and legal forms of enterprises	2
S3	Funds for business activity and pay regulations	2
S4	Management in an international context	2
S5	Analysis of organization structure on the Polish market	2
S6	Organization as a system of functions, processes and operations.	2
S7	Corporate Social Responsibility	2
S8	Summary and test	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 (also in multimedia form) N4. Discussion of selected issues N5. Student's own work - independent studies: preparation for seminars and preparation for the colloquiums N5. Presentations prepared by students

EVALUATION OF SUBJECT LEARNING EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), C – concluding (at semester end))	Learning effect number	Way of evaluating learning effect achievement
F1	PEU_W01-03	Quizzes (during seminar)
F2	PEU_W01-03 PEU_U01-03	Preparation of the presentation
F3	PEU_W01-03 PEU_U01-03 PEU_K01-04	Scoring students' involvement
C1 (seminar) = 0,4 * F1 + 0,4 * F2 + 0,20 * F3		
F4	PEU_W01-04	Exam
F5	PEU_W01-04 PEU_U01-03 PEU_K01-04	Scoring students' involvement
C2 (lecture) = 0,8*F4 +0,2* F5		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Adamik, A. "Nauka o organizacji." Oficyna a Wolters Kluwer business, Warszawa 2013. [2] Koźmiński A.K., Piotrowski W. [red.]: Zarządzanie. Teoria i praktyka, PWN, Warszawa 2010. [3] Koźuch, Barbara. Nauka o organizacji. CeDeWu. pl Wydawnictwa Fachowe, 2021. SECONDARY LITERATURE: [4] Bielski M.: Podstawy teorii organizacji i zarządzania, C. H. Beck, Warszawa 2004. [5] Bieniok H. [red.]: Metody sprawnego zarządzania: planowanie, organizowanie, motywowanie, kontrola, PLACET, Warszawa 2011. [6] Cyfert S., Krzakiewicz K.. Nauka o organizacji. Towarzystwo Naukowe Organizacji i Kierownictwa, 2009.

[7]	Czarniawska B.: Trochę inna teoria organizacji: organizowanie jako konstrukcja sieci działań, Poltext, Warszawa 2010.
[8]	Griffin R.W.: Podstawy zarządzania organizacjami, PWN, Warszawa 2009.
[9]	Hopej M., Kamiński R.: Struktury organizacyjne współczesnych organizacji, Oficyna Wyd. PWr., Wrocław 2010.
[10]	Hatch M.J.: Teoria organizacji, PWN, Warszawa 2002.
[11]	Mikuła B., Pietruszka-Ortyl A., Potocki A. [red.]: Podstawy zarządzania przedsiębiorstwami w gospodarce opartej na wiedzy, Difin, Warszawa 2007.
[12]	Morgan G.: Obrazy organizacji, PWN, Warszawa 1997.
[13]	Robbins S.P., DeCenzo D.A.: Podstawy zarządzania, PWE, Warszawa 2002.
[14]	Schermerhorn J.R.: Zarządzanie, kluczowe koncepcje, PWE, 2008.
[15]	Steinmann H., Schreyögg G.: Zarządzanie. Podstawy kierowania przedsiębiorstwem, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Katarzyna Walecka-Jankowska, katarzyna.walecka-jankowska@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Negocjacje i rozwiązywanie konfliktów****Name of subject in English: Negotiation and conflict resolving****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0111S****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 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)					1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1. Acquiring knowledge by the student in the field of interpersonal, group and organizational conflicts.

C2. Achieving improved behavior in conflict situations and acquiring the ability to consciously define and implement strategies in this field.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 Student has basic knowledge of psychology and sociology of organizations, especially in the field of conflict situations and effective conflict resolution as a factor influencing team effectiveness.

relating to skills:

PEU_U01 Student can select sources of information and use them in the effective resolution of conflicts in teams.

PEU_U02 Student can identify, interpret and evaluate the behavior of members of the organization during conflicts and use typical techniques to improve these behaviors.

relating to social competences:

PEU_K01 Student demonstrates readiness to identify problems in the area of conflict resolution in the organization.

PEU_K02 – Student is prepared to initiate changes in the area of conflict resolution in the workplace and participate in their planning and implementation.

PROGRAM CONTENT

Seminar		Number of hours
Sem 1	Conflict - psychological, social and organizational determinants.	2
Sem 2	Conflict - psychological, social and organizational determinants.	2
Sem 3	Ways to resolve conflicts.	2
Sem 4	Ways to resolve conflicts.	2
Sem 5	The role of communication in negotiations.	2
Sem 6	Preparation for negotiations - roles in the negotiating team.	2
Sem 7	Preparation for negotiations - creativity in negotiations.	2
Sem 8	Negotiating styles.	2
Sem 9	Persuasion and argumentation strategies.	2
Sem 10	Impact techniques in the negotiation process.	2
Sem 11	Simulation of a conflict situation – group B	2
Sem 12	Simulation of a conflict situation – group C	2
Sem 13	Simulation of a conflict situation – group D	2
Sem 14	Terms of concluding a contract.	2
Sem 15	Final test - a summary of classes.	2
	Total hours	30

TEACHING TOOLS USED

N1. Discussion
 N2. Group exercises
 N3. Simulations
 N4. Presentations

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_U01- PEU_U02 PEU_K01-PEU_K02	Activity during classes
F2	PEU_W01 PEU_U01- PEU_U02 PEU_K01-PEU_K02	Works and analysis prepared in teams
F 3	PEU_W01 PEU_U01- PEU_U02 PEU_K01-PEU_K02	Written test result

$$P = 0.2 F1 + 0.4 F2 + 0.4 F3$$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. Roszkowska E., Wachowicz T. (2016) *Negocjacje*,
2. Brożek, B., Satelmach J., (2014) *Negocjacje*,
3. Witkowski, T, Chęłpa, S. (2003) *Psychologia konfliktów*. Wrocław, Wydawnictwo Mediator

SECONDARY LITERATURE:

1. Lunden, B., Rosell L. (2014) *Techniki negocjacji*;
2. Fisher, R., Ury, W., Bruce, P. (2016). *Dochodząc do tak. Negocjowanie bez poddawania się*. Warszawa, PWE

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Borkowska anna.borkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: ODPOWIEDZIALNOŚĆ ZA PRODUKT****Name of subject in English: PRODUCT LIABILITY****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st/ full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0117****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 in lectures and other academics (BU)	0,6	1,2			

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Completed course: law for managers (lecture and exercises)

SUBJECT OBJECTIVES

C1 Familiarizing the audience with the scope and degree of product liability that each participant of the supply chain bears towards consumers.

C2 Introducing obligations of entrepreneurs who want to introduce a safe product to the market.

C3 Presentation of the most important legal regulations in the field of relations that entrepreneurs can participate in.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has knowledge of the legal requirements that an entrepreneur must meet in order to introduce a safe product to the market.

PEU_W02 Has knowledge of the degree of responsibility of a participant in the supply chain for damage caused by a dangerous product.

...

relating to skills:

PEU_U01 - He can carry out the conformity assessment process in accordance with the requirements of European Union directives.

PEU_U02 - He knows how to report dangerous products to market controlling authorities.

PEU_U03 - He can search and properly select the latest literature on product liability relating to social competences:

PEU_K01 - It is prepared to be active not only in those fields that directly result from management studies.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction to the subject. Main premises for product liability. Presentation of basic concepts related to product liability (entrepreneur, producer, product, quality, consumer, customer). Review of the terms contained in the terminology standard: PN-EN ISO 9000: 2015.	2
Lec 2	Product responsibility fields of individual entrepreneurs. Contract and tort regime.	2
Lec 3	Directive on product liability (85/374 / EEC) and its Polish equivalent. The concept of a dangerous product and the harm that this product causes. Entities obliged to redress the damage. Persons to whom the product caused damage. Exemptions from liability. Examples of damage caused by products.	2
Lec 4-5	Directive on general product safety (2001/95 / EEC) and its Polish equivalent. General product safety system. Register of dangerous products (RAPEX and other). Summoning Actions. Sanctions for violation of the provisions on general product safety.	3
Lec 5-6	Placing products on the market taking into account safety requirements. Conformity assessment - compliance assessment criteria. Declaration of Conformity. New Approach directives. Authorization, accreditation and notification. The concept and role of CE marking. Products that require CE marking.	3
Lec 7	Protection of entrepreneurs against defective products. The role of the contract in this protection. The concept of the warranty for physical defects in the goods sold. The concept and role of the guarantee in the protection of the buyer. Seller's complaints.	2
Lec 8	Test	1
	Total hours	15
Classes		Number of hours
Cl 1	Organizational classes - presentation of the rules of crediting. Discussing the topics.	2
Cl 2	Presenting and solving examples of case studies related to liability for damage caused by a dangerous product.	2
Cl 3	Review and discussion of the most important websites and registers concerning dangerous products.	2
Cl 4	The main ways of reporting dangerous products to market control authorities - exercises in groups.	2
Cl 5	Safety and health of the youngest consumers (Toys Directive). Presentation of ways to test the safety of toys for children.	2
Cl 6	Product liability in online sales (issues related to online sales of a dangerously defective product). Limits of responsibility. Costs of returning the product. Protection of sellers against unjustified complaints.	2
Cl 7	Product liability for off-premises sales. Limits of responsibility. Costs of returning	2

	the product. Protection of sellers against unjustified complaints.	
Cl 8	Online and off-premises sales - presenting and solving example case studies.	2
Cl 9	Withdrawal of products from the market (summoning actions) - exercises in groups.	2
Cl 10	Essential ways for sellers to reduce product liability - presentation and discussion of sample terms and conditions of sale in selected retail stores.	2
Cl 11	Product liability in the context of contractual provisions between its parties. Presentation of contractual solutions limiting such liability.	2
Cl 12	Directions of development of product liability in the enterprise - exercises in groups.	2
Cl 13	Seller's complaints. - exercises in groups.	2
Cl 14	Introducing a sample product requiring CE marking to the market - presentation of final works done in groups.	2
Cl 15	Introducing a sample product requiring CE marking to the market - presentation of final works done in groups.	2
	Total hours	30

TEACHING TOOLS USED

N1. Traditional lecture using transparencies and slides
N2. Consultations
N3. Own work - independent studies

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating achieved learning outcomes.
F1	PEU_W01, PEU_W02,	Lecture with multimedia presentation. Frequency.
F2	PEU_W01, PEU_W02, PEU_U01, PEU_U02, PEU_K01.	Current work in groups. Presentation of the task completed in the semester.
F3	PEU_W01, PEU_W02, PEU_U01, PEU_U02, PEU_K01.	Activity
F4	PEU_W01, PEU_W02.	Test.
P (lectures) = 0,1*F1+0,2*F3+0,7*F4 P (classes) = 0,7*F2+0,3*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u>
[1] M. Jagielska, <i>Odpowiedzialność za produkt</i> , Oficyna a Walters Kluwer business, Warszawa 2009.
[2] B. Wróblewski, <i>Odpowiedzialność odszkodowawcza państwa za działania ustawodawcy</i> , C.H.Beck, Warszawa 2011.
[3] M. Piękowski, <i>Podstawy ochrony prawnej konsumenta. Przepisy i przykłady</i> , CeDeWu, Warszawa 2012.
[4] F. Zoll, <i>Rękojmia. Odpowiedzialność sprzedawcy</i> , C.H.Beck, Warszawa 2018.
[5] T. Czech, <i>Prawa konsumenta. Komentarz</i> , C.H.Beck, Warszawa 2020.
[6] M. Janoś – Kresło (red.), <i>Bezpieczeństwo konsumentów. Ochrona i edukacja konsumentów</i> , Oficyna Wydawnicza SGH, Warszawa 2020.
<u>SECONDARY LITERATURE:</u>
[1] Krzysztof Zymonik, Gwarancja producencka (komercyjna), „Problemy Jakości” 2008, nr 2.
[2] Tomasz Czech, <i>Prawa konsumenta. Komentarz</i> , Wolters Kluwer Polska, Warszawa 2020.
[3] Rafał Adamus, <i>Nowa upadłość konsumencka</i> , Difin, Warszawa 2015.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Krzysztof Zymonik, krzysztof.zymonik@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Planowanie i modelowanie finansowe****Name of subject in English: Financial planning and modeling****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0124****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)	25		50		
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)			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,6		1,2		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. knowledge of financial accounting
2. knowledge of corporate finance

SUBJECT OBJECTIVES

C1: Develop practical skills to create prospective (ex ante) financial information and present it in the form of structured financial plans, including for the purposes of developing business plans, evaluating investment projects, preparing valuations, credit applications.

C2: Develop practical skills to evaluate prepared financial plans in the context of benefits and risks.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01: Has knowledge of methods of financial planning - creating budgets.

PEU_W02: Knows the principles of making long-term financial projections internally coherent and consistent with accounting principles.

PEU_W03: Know methods and tools to assess financial condition of an enterprise.

relating to skills:

PEU_U01: Can plan the quantities appearing in the financial statements.

PEU_U02: Can prepare pro forma financial statements in accordance with accounting principles.

PEU_U03: Able to read financial literature with understanding
PEU_U04: Can make substantive arguments in the field of corporate finance
relating to social competences:
PEU_K01: Understands the need for continuous improvement of knowledge and skills regarding the needs and methods of financial planning
PEU_K02: Is prepared to participate in the creation of long-term and short-term financial plans for the purpose of business plans, evaluation of investment projects, valuations, loan applications, etc.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Importance of financial planning in an enterprise	2
Lec 2	Methods of preparing pro forma financial statements	2
Lec 3	Assumptions of financial plan	2
Lec 4	Financial assessment of the quality of a developed plan	2
Lec 5	Assessment of profitability of a planned undertaking	4
Lec 6	Risk analysis in financial planning	2
Lec 7	Assessment	1
	Total hours	15

Laboratory		Number of hours
Lab 1	Discussion of the project and the information needs necessary for its	2
Lab 2	Development of a business venture concept	4
Lab 3	Preparation of a sales forecast taking into account the marketing analysis created	4
Lab 4	Identification of resources necessary for the implementation of a business venture	2
Lab 5	Estimation of investment outlays and costs of the planned venture	4
Lab 6	Preparation of pro forma financial statements	4
Lab 7	Assessment of the quality of the prepared projections	4
Lab 9	Verification of the prepared projections	2
Lab 9	Presentation of the financial plan of the venture using audiovisual means, together	4
	Total hours	30

TEACHING TOOLS USED	
N1. Multimedia presentation	
N2. Spreadsheet	

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	Colloquium
F2	PEU_U01, PEU_U02, PEU_U03, PEU_U04, PEU_K01, PEU_K02,	Evaluation of project and its presentation
P1(lecture) =0,05 presence + 0,95 exams P2 (laboratory) = 0,5 project +0,5 presentation		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Benninga S.Z., Sarig O.H., <i>Finanse przedsiębiorstwa: metody wyceny</i> , WIG-Press, Warszawa 2000 [2] Dudycz T., <i>Analiza finansowa jako narzędzie zarządzania finansami przedsiębiorstwa</i> , Wydawnictwo Indygo Zahir Media, Wrocław 2011 [3] <i>Planowanie finansowe w przedsiębiorstwie</i> , J. M. Gryko [et al.], Wydawnictwo UE, Poznań 2011 [4] Rogowski W., <i>Rachunek efektywności inwestycji</i> , Oficyna a Wolters Kluwer business, Kraków 2008		
<u>SECONDARY LITERATURE:</u> [1] Copeland T., Koller T., Murrin J., <i>Wycena: mierzenie i kształtowanie wartości firm</i> , WIG-Press, Warszawa 1997 [2] Pluta W., <i>Planowanie finansowe w przedsiębiorstwie</i> , PWE, Warszawa 2003 [3] Tepper R., <i>Fail-safe small businesses: how they work, why they succeed</i> , J.Wiley, New York 1994		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Prof. Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Podstawy analizy i modelowanie SIZ****Name in English: Basics of MIS analysis and modeling****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0121****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)	25		50		
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)	0,6		1,2		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Generally familiar with the concept and application of information technology in management. Knows most commonly used office software tools and their application in management.
2. Knows the basics of building simple software tools to solve management problems.
3. Can build simple software tools to solve management problems.

SUBJECT OBJECTIVES

C1 To obtain knowledge about problems, methods and tools for modeling and analysis of management information systems together with identifying information requirements for such systems.

C2 To acquire capability to analyze and build models of management information systems together with identifying information requirements for such systems.

C3 To acquire social competences specific for modeling and analysis of management information systems together with identifying information requirements for such systems.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge, the students:

PEU_W01 - Know selected methods of identification and analysis of organization information systems

PEU_W02 - Know the selected methods, notations and tools for modeling organization information systems and business processes

Relating to skills, the students:

PEU_U01 - Can identify and analyze the needs of users of organization information systems

PEU_U02 - Knows how to create selected models of organization information systems with the help of selected notation and software and how to build business process models using selected notations and software tools

Relating to social competences, the students:

PEU_K01 – Know how to independently develop their skills and knowledge, work in cooperation and in teams, demonstrate willingness to identify, analyze and solve problems in the field of modeling and analysis of management information systems.

PEU_K02 – Can search for and choose professional methods to solve problems, take responsibility for their choices, communicate, persuade and defend their views related to the modeling and analysis of management information systems.

PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec 1	Introduction to the class and discussion of assessment rules. Introduction to business identification, analysis and modeling - basic concepts, structural and object-oriented approaches, links to databases and data processing.	2
Lec 2	Planning and conducting interviews and surveys and a document analysis and decision-making processes..	2
Lec 3	Subsystems of information systems. The analysis of information requirements.	2
Lec 4	Modeling of IS – business motivation. Defining goals, problems, critical factors (success factors) and key performance factors. Notations and tools for modeling context and business process areas - context models, the hierarchy of functions (processes), elementary function, functional dependencies (DFD), models and use cases.	2
Lec 5	Conceptual modeling of information scope in IS (knowledge: data and relationships); methods and structural tools (ERD). Object modeling of information scope in IS (class diagram).	2
Lec 6	The genesis of problems and the purpose of business process modeling. Types of business process models. Processes and instances. Notations. Core elements of BPMN: activities, events, control flow. Branching process: the goal. Events. The participants of the process: activities agents (roles).	2
Lec 7	Transactions. Subprocesses. Interaction between processes. Grouping activities. Data objects. Design patterns in business process modeling.	2
Lec 8	Written test.	1
	Total hours	15

Form of classes - laboratory		Number of hours
Lab 1	Introduction to the class and discussion of assessment rules. Description of the organization being the IS environment	2
Lab 2	Organization information system	2
Lab 3	Preparing an interview/a survey/a panel session	2
Lab 4	Domain subsystems - description. Processes in the subsystem	2
Lab 5	Analysis of selected quantitative documents (source document - record, resulting document - report). Evaluation of the report from analysis.	2
Lab 6	Preparation of goals model, problems, critical factors and key performance indicators and context models for a sample IS	2
Lab 7	Preparation of business process areas model, hierarchy of functions decomposition into elementary functions, simple function dependencies model (FDD), selected use case model for a sample IS	2
Lab 8	Preparation of conceptual data model and relationships in a sample ERD diagram	2
Lab 9	Preparation of a sample class diagram for IS	2
Lab 10	Preparation of a sample data flow diagram (DFD) for the sample IS together with a object-function matrix Practical test.	2
Lab 11	Software tools for process modeling: features, interface, project construction, diagrams preparation	1
Lab 12	Preparation of simple process models: sequences, basic branches, loops	2
Lab 13	Preparation of simple process models: events, subprocesses, roles	2
Lab 14	Preparation of advanced process models based on their description in natural language. Practical test	3
Lab 15	Test	2
	Total hours	30

TEACHING TOOLS USED

N1. Lecture
 N2. Multimedia presentation
 N3. Laboratory instruction
 N4. Instruction during classes
 N5. Group discussion during classes
 N6. Online educational group discussion
 N7. Workstation with graphical operation system MS Windows and MS Access
 N8. Preparation of analysis report
 N9. Written test

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester	Educational effect number	Way of evaluating educational effect achievement

end)		
F1	PEU_U01, PEU_U02	Evaluation of project milestones
F2	PEU_K01, PEU_K02	Evaluation of attendance, teamwork, and discussion of project results
P1	PEU_W01, PEU_W02	Written test on the lecture
$P2=0,75 \cdot F1 + 0,25 \cdot F2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Barker R., <i>CASE*Method - Modelowanie związków encji</i> , , PWN, Warszawa 1996.		
[2] Dąbrowski W., Stasiak A., Wolski M., <i>Modelowanie systemów informatycznych w języku UML 2.1 w praktyce</i> , PWN, MIKOM, Warszawa 2007.		
[3] Drejewicz S., <i>Zrozumieć BPMN</i> . Helion, Wrocław 2012		
[4] Osterwalder A., Pigneur Y., <i>Tworzenie modeli biznesowych. Podręcznik wizjonera</i> . PWN, Helion Gliwice, 2012		
[5] Rostek K., Wiśniewski M., <i>Modelowanie i analiza procesów w organizacji</i> (eBook), Oficyna Wydawnicza Politechniki Warszawskiej, Wydanie: 1, 2020		
<u>SECONDARY LITERATURE:</u>		
[1] Barker R., Longman C., <i>CASE*Method - Modelowanie funkcji i procesów</i> , WNT, Warszawa 1996.		
[2] Beynon-Davies P., <i>Inżynieria systemów informacyjnych</i> , WN-T, Warszawa 1999.		
[3] Gawin B., Marcinkowski B., <i>Symulacja procesów biznesowych. Standardy BPMS i BPMN w praktyce</i> , Helion, 2013		
[4] Muller R.J., <i>Bazy danych język UML w modelowaniu danych</i> , MIKOM, Warszawa 1999.		
[5] Trzaska M. <i>Modelowanie i implementacja systemów informatycznych</i> , Wydawnictwo Polsko-Japońskiej Wyższej Szkoły Technik Komputerowych, 2008		
[6] Wrycza S., <i>Analiza i projektowanie systemów informatycznych zarządzania. Metodyki, techniki, narzędzia</i> . PWN, Warszawa 1999..		
[7] Wrycza S., <i>Informatyka ekonomiczna. Podręcznik akademicki</i> , PWE, Warszawa 2010.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Leopold Szczurowski, leopold.szczurowski@pwr.wroc.pl		
Maria Galant-Pater, maria.galant-Pater@pwr.wroc.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy baz danych****Name of subject in English: Fundamentals of data bases****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0104****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)	25		50		
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)	0,6		1,2		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1 To get knowledge about relational data bases and ways of creating and using them in practice.

C2 To acquire capability to create and use of relational database systems for getting information ad hoc for company management purposes.

C3 To acquire social competences specific for the applications of database systems in management information systems.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01. Knows relational database structure and database management system (DBMS) functions and how they can be used in various areas of an organization.

PEU_W02. Knows the operations of relationship algebra used in the processes of collecting, storing, and sharing data for management purposes.		
PEU_W03. Knows the graphical query language and how to automate tasks in the selected DBMS.		
relating to skills:		
PEU_U01. Able to implement a simple relational database system.		
PEU_U02. able to define data processing in a graphical query language and extract information from a relational database that is useful for solving management problems.		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Discussion of rules of participation and lecture credit. Relational database technology. Data base management system. Relational data base and its structure. Update data operations. Integrity constraints.	2
Lec 2	Definition, application and implementation of operation on tables: selection, projection, equi-join. Superposition of selection, projection and equi-join operations.	2
Lec 3	Definition, application and implementation of operation on tables: set-theoretic operations: union, intersection, unsymmetrical difference, complement.	2
Lec 4,5	Reports and forms, their application, types and structures, implementation. Automating tasks.	4
Lec 6	Definition, application and implementation of operation on tables: division and theta-join.	2
Lec 7	Interpretation of queries given in a natural language and planning of the data processing process. Functional dependences between data in tables and their types.	1
Lec 7	Written test (P).	1
Lec 8	Summary.	1
	Total hours	15
Laboratory		Number of hours
Lab 1	Discussion of rules of participation and lab credit. Sample database management system and its functions; creating a data base; defining of the data base table structures.	2
Lab 2,3	Defining of the data properties, primary and additional keys. Applying of integrity constraints in the data base design and verifying the data base management system control functions.	4
Lab 4	Practical test (F1).	2
Lab 5	Trading company data base case study. Tables and relationships. Primary	2

	and additional keys.	
Lab 6	Select and make table queries. Defining queries. Query properties.	2
Lab 7,8	Defining of the one table search process. Implementation of the selection and projection operations. Defining of the many tables search process. Defining of the virtual columns, data grouping, selecting and aggregating, aggregation functions.	4
Lab 9	Practical test ((F2).	2
Lab 10	Defining of the tables union processes. Append queries. The set-theoretic union operation implementation. Defining of the tables intersection processes. The set-theoretic intersection operation implementation.	2
Lab 11	Defining of the tables difference processes. Delete queries. The set-theoretic difference operation implementation.	2
Lab 12,13	Implementation of the complement operation. Reports, their application, types and structures. Reports implementation. Forms, their application, types and structures. Forms implementation. Automating tasks.	4
Lab 14	Practical test ((F3).	2
Lab 15	Summary. Credit.	2
	Total hours	30

TEACHING TOOLS USED

N1. Lecture
N2. Multimedia presentation
N3. Instruction during laboratory
N4. Workstation with graphical operation system MS Windows and MS Access
N5. Practical test
N6. 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
F1	PEU_W01 PEU_U01	Practical test
F2	PEU_W02 PEU_W03 PEU_U01 PEU_U02	Practical test
F3	PEU_W02 PEU_W03 PEU_U01 PEU_U02	Practical test
F4	PEU_W01 PEU_W02	Written test

	PEU_W03	
$P(\text{laboratory}) = 0,25 \cdot F1 + 0,5 \cdot F2 + 0,25 \cdot F3$ $P(\text{lecture}) = F4$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Ullman J., Widom J. Podstawowy wykład z systemów baz danych. WNT.		
[2] Date C. Wprowadzenie do baz danych. WNT.		
<u>SECONDARY LITERATURE:</u>		
[1] Garcia-Molina H., Ullman J.D., Widom J., Implementacja systemów baz danych. WNT.		
[2] Ullman J.D., Systemy baz danych. WNT.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Maria Galant-Pater, maria.galant-pater@pwr.edu.pl		
Michał Jarema, michal.jarema@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy marketingu****Name of subject in English: Principles of Marketing****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0016****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)	75	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)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,2	1,2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. basic knowledge of management
2. knowledge of basic economics

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SUBJECT OBJECTIVES

To provide basic knowledge, including its application aspects, concerning:

C1 basic notions, regularities and problems of marketing in enterprise management

C2 to understand the essence and course of fundamental marketing processes in a company

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - Basic knowledge of the needs and behaviour of enterprise customers

PEU_W02 - Knowledge of basic decisions, processes and marketing tools in enterprise management

relating to skills:

PEU_U01 - ability to understand fundamental marketing processes in enterprise

PEU_U02 - ability to select basic marketing tools to the enterprise situation

relating to social competences:

PEU_K01 - understands the influence of marketing actions on customers' reactions on the market

PEU_K02 - is aware of the need to develop knowledge and skills in marketing in order to effectively solve problems of business management
PEU_K03 - is prepared to take ethical responsibility in business management
PEU_K04 - shows readiness to lead and work in a team
PEU_K05 - shows initiative, creativity and concreteness in formulating, communicating and defending own point of view

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Organizational issues - discussion of the structure, principles and organization of the course. Essence of marketing	2
Lec 2	Marketing strategy in business management	2
Lec 3	Analysis of the environment	2
Lec 4	Marketing information system	2
Lec 5	Behaviour of individual, business and other buyers	2
Lec 6	Segmentation, selection of target markets and positioning	2
Lec 7	Product	2
Lec 8	Brand strategy	2
Lec 9	Services and customer service	2
Lec 10	Price decisions	2
Lec 11	Distribution	2
Lec 12	Marketing communication	2
Lec 13	Advertising, Public Relations and other instruments of marketing communication	2
Lec 14	Online marketing	2
Lec 15	Marketing on the international markets	2
	Total hours	30
Classes		Number of hours
Cl 1	Organizational issues - discussion of the structure, principles and organization of the course. Understanding marketing	2
Cl 2 - Cl 3	Understanding marketing - cont.	4
Cl 4 - Cl 5	The marketing process	4
Cl 6 - Cl 8	Understanding the market and customers	6
Cl 9 – Cl 11	Shaping your market offering and building a strong brand.	6
Cl 12 – Cl 14	Communicating and delivering value.	6
Cl 15	Marketing activities in global markets. Sustainable marketing. Summary of classes.	2
	Total hours	30

TEACHING TOOLS USED
N1. Traditional lecture with the use of multimedia presentation N2. Questions asked to students during the lecture N3. Case studies N4. Questions and tasks asked to students during classes N5. Individual or team analysis and assessment of the given aspects of the marketing activity of an enterprise N6. Individual or team work: preparation to the exercise classes and preparation to the exam N7. Tutoring (optionally available for students selected by the tutor from among those interested)

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	Assessment of solutions to given tasks (short tests included)
F2	PEU_U01 PEU_U02 PEU_K01 PEU_K02 PEU_K03 PEU_K04 PEU_K05	Activity and engagement during the semester
F3	PEU_W01 PEU_W02	Assessment of solutions to given examination issues
P [Classes] = 0,3*F2 + 0,7*F1 P [Lecture] = F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Kotler Ph. Keller K.L., Marketing, wyd. 23 (lub wyd. wcześniejsze do wyd. 14 włącznie), Rebis, Poznań 2022 (lub wyd. wcześniejsze do r. 2012 włącznie). [2] Biernacki M., Nowak M. W., Jak poprawić satysfakcję pacjentów: zrozumieć sukces Cleveland Clinic, Handel Wewnętrzny, nr 5 (370), wrzesień-październik, 2017, s. 53-62. <u>SECONDARY LITERATURE:</u> [1] Armstrong G., Kotler Ph., Marketing. Wprowadzenie, Wydawnictwo Nieoczywiste, Warszawa 2016. [2] 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. [3] Keller K.L., Strategiczne zarządzanie marką: kapitał marki - budowanie, mierzenie i zarządzanie, Wydawnictwo Nieoczywiste, Warszawa 2016. [4] Kartajaya H., Kotler P., Setiawan I., Czym jest marketing 5.0?, ICAN Management Review, 2021, Nr 11. [5] Nowak M.W., Cechy skutecznych kampanii marketingowych, [w:] Humanistyka i nauki społeczne: doświadczenia, konteksty, wyzwania, monografia, tom 8., Pujer K. (red. nauk.), Wydawnictwo Exante, Wrocław 2018, s. 101-110.

[6] Sobieraj M., Co każdy CEO powinien dziś wiedzieć o marketingu?, ICAN Management Review, 2021, Nr 11.

[7] Turner J., Shah R., Jak zarabiać w mediach społecznościowych? Rozwijaj firmę dzięki nowoczesnym narzędziom marketingowym, wyd. II, Helion, OnePress, Gliwice 2015.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr inż. Milleniusz Nowak, Milleniusz.Nowak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy rachunkowości finansowej****Name of subject in English: Fundamentals of financial accounting****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0107****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)	50	25	25		
Form of crediting	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)	1.2	0.6	0.6		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. basic knowledge of economics
2. knowledge of the organizational and legal foundations of business operation

SUBJECT OBJECTIVES

C1 To become familiar with the information system of accounting.

C2 The student becomes familiar with the nature and terminology of basic financial and accounting categories.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has a structured knowledge of accounting information system, principles and methods of its creation

PEU_W02 Has a structured knowledge of accounting measures of business performance

relating to skills:

PEU_U01 Be able to measure and record business events
 PEU_U02 Understands the meaning of financial and accounting categories. Knows financial and accounting terminology.
 PEU_U03 Be able to prepare financial statements
 PEU_U04 Be able to prepare a corporate financial efficiency statement to a basic extent

 relating to social competences:
 PEU_K01 Understands the dynamics of legal and institutional changes in the field of accounting and is aware of constant learning in this area
 PEU_K02 Understands the importance of accounting in shaping the entrepreneurial environment

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	History and introduction to accounting theory	2
Lec 2	Conceptual assumptions and principles of accounting	2
Lec 3	Discussion of basic financial statements and the relationship between them	2
Lec 4	Business transactions and their documentation	2
Lec 5	The accounting account as a tool for recording business operations	2
Lec 6	Fixed assets - valuation and recording	2
Lec 7	Current assets - measurement and recording	2
Lec 8	Equity and liabilities - measurement and recording	2
Lec 9	Settlements - classification and recording	3
Lec 10	VAT evidence principles	2
Lec 11	Revenues, costs, profits and losses - measurement and records	2
Lec 12	Principles of recording and accounting for costs, determining profit/loss on sales	4
Lec 13	Cash flow - direct and indirect methods	2
Lec 14	Consolidation of financial statements, summary	1
	Total hours	30

Classes		Number of hours
Cl 1	Introduction. Balance sheet - classification of assets and liabilities	2
Cl 2	Business operations - division and their influence on the financial statement	1
Cl 3	Balance accounts - principles of operation, recording balance sheet operations and drawing up the balance sheet	2
Cl 4	Performance accounts - principles of operation, recording performance operations, including the recording of costs by nature and function	4
Cl 5	Closing of performance accounts, preparation of the profit and loss account	2
Cl 6	Preparation of the cash flow statement	2
Cl 7	Test	2
	Total hours	15

Laboratory		Number of hours
Lab 1	Familiarisation with the structure and functionality of the financial and accounting system. Creating a chart of accounts for a given enterprise.	2
Lab 2	Entering data in the opening balance sheet.	6
Lab 3	Recording economic operations on the basis of documents (invoice, bank statement, payroll, etc.).	2
Lab 4	Drawing up period-end statements: trial balance, VAT declaration, etc.	3
Lab 5	Drawing up financial statements: balance sheet, profit and loss account.	2
	Total hours	15

TEACHING TOOLS USED	
N1. Multimedia presentation N2. Financial and accounting computer system	

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during semester), P –	Learning outcomes code	Way of evaluating learning outcomes achievement

concluding (at semester end)		
F1	PEU_U01, PEU_U02, PEU_U03, PEU_U04, PEU_K01, PEU_K02	Test
F2	PEU_U01, PEU_U02, PEU_U03, PEU_U04, PEU_K01, PEU_K02	Credit work with the use of a financial and accounting computer system
F3	PEU_W01, PEU_W02	Examination
P		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Gierusz B., Podręcznik samodzielnej nauki księgowania, ODDK, Gdańsk 2018. [2] Chałupczak J., Zasady rachunkowości - zbiór zadań z rozwiązaniami, Tom 1, ODDK, Gdańsk 2018 [3] Gabrusewicz W., Samelak J., Podstawy rachunkowości UE, Poznań 2011, [4] Zaawansowana rachunkowość finansowa /Teresa Martyniuk, Danuta Małkowska. Warszawa : Polskie Wydawnictwo Ekonomiczne, 2010.	
<u>SECONDARY LITERATURE:</u>	
[1] E. A. Hendriksen, M. F. van Breda. Teoria rachunkowości, PWN Warszawa 2002. [2] Zaawansowana rachunkowość finansowa :przykłady, zadania, testy /red. nauk. Kazimiera Winiarska; aut. Anna Buczkowska [et al.]. Warszawa: Wydawnictwo C. H. Beck, 2012. [3] Rachunkowość finansowa :ujęcie sprawozdawcze i ewidencyjne : zbiór zadań /pod red. Ewy Walińskiej ; [aut.] Ewa Walińska [et al.]. Warszawa : Oficyna a Wolters Kluwer business, 2010.	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Prof. dr hab. inż. Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy rachunkowości finansowej****Name of subject in English: Basics of financial accounting****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0108****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)	50	25	25		
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	1	1		
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)	1.2	0.6	0.6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Acquiring basic knowledge of principles, methods and ways of recording business operations on accounting accounts and formal and legal conditions of accounting on the basis of the Accounting Act and financial reporting requirements

C2 Acquiring skills of recording business operations on accounting accounts, closing reporting periods and preparing financial statements

C3 Acquiring skills of using selected tools of a fully integrated package of programs for running a company from the SME sector for the purpose of management support

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 has a structured knowledge of the subject, scope and principles of accounting, economic events (including economic operations) and their documentation and recording principles,

PEU_W02 characterizes elements of accounting organization (documentation and application) and knows the basics of financial reporting (balance sheet, profit and loss account),

PEU_W03 is familiar with tools and functionalities of processing accounting documents in an integrated package of programs and their practical application in organizations

relating to skills:

PEU_U01 is able to list and discuss statutory requirements concerning documentation of the accounting principles (policy) adopted by the entity as well as the scope of the entity's obligation to keep books of account and obligatory elements of books of account .

PEU_U02 is able apply in practice the principles of recording typical business operations, close and open accounting periods and prepare basic financial statements (balance sheet, profit and loss account and account).

PEU_U03 is able to apply in practice appropriate functions of selected software to solve managerial problems with recording of business operations and opening and closing settlement periods.

relating to social competences:

PEU_K01 is aware of the importance of accounting in business practice.

PEU_K02 is aware of the need to take into account ethical conduct in conducting business.

PEU_K02 shapes patterns of proper conduct in conducting business and accepts responsibility for them.

PROGRAM CONTENT

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational lecture - organization of the lecture and rules of passing. The essence of accounting, as a system of economic records.	2
Lec 2	Balance sheet, concept and formal requirements, characteristics of balance sheet items, rules for drawing up the balance sheet.	2
Lec 3	Basic accounting principles	2
Lec 4	Economic events and their impact on balance sheet components: characteristics of events, classification of events, types of events, documentation of economic operations.	2
Lec 5	Accounting account and its role in the records of economic operations: the essence of the account, the forms and elements of the account, the opening and functioning of accounting accounts, the rules for double entry, the statement of turnover and balances and the closure of accounts.	2
Lec 6	Splitting and merging accounts: reasons for splitting and merging accounts, account subdivision.	2
Lec 7	Valuation of stocks, material and commodity turnover	2
Lec 8	Valuation of assets and liabilities and their inventory: fixed assets, fixed assets under construction, depreciation and amortization.	2
Lec 9	Classification and settlement record rules.	2
Lec 10	Remuneration: concept and register.	2
Lec 11	Taxes and their records	2
Lec 12	Records and accounts of costs. Options for cost accounting III.	2
Lec 13	Revenue and costs related to their achievement.	2
Lec 14	Financial result and its distribution. Financial statements.	2
Lec 15	Final test.	2
	Total hours	30

Classes		Number of hours
Cl 1	Classification of assets and liabilities in the balance sheet	1
Cl 2	Economic operations their effects	2
Cl 3	Balance sheet accounts - principles of operation, statement of turnover and balances: - Settlements (valuation, accounting rules, revaluation write-offs of receivables, records of settlements with employees), - Materials (valuation, records, fixed and variable registration prices) - Goods (valuation, records)	2
Cl 4	Fixed assets (classification, valuation, documentation, depreciation of fixed assets - balance sheet and tax treatment)	2
Cl 5	Rules for the functioning of result accounts - operating costs and revenues (variants of accounting and settlement of costs, settlement of purchase costs, departmental costs, auxiliary production costs, general administrative and sales costs, prepayments)	2
Cl 6	Categories shaping the financial result (result on sales, other operating activities, financial activities and extraordinary results, options for determining the financial result, determining the tax liability, deferred income tax)	2
Cl 7	Financial reporting: balance sheet and profit and loss account	2
Cl 8	Final test	2
	Total hours	15

Laboratory		Number of hours
Lab 1	Introduction to course issues, work environment with integrated program package and security rules in the computer lab	1
Lab 2	Starting work with the program, creating files of contractors, employees, institutions, the register of fixed assets	2
Lab 3	Entering selected data to the opening balance	2
Lab 4	Account assignment and accounting	2
Lab 5	Introduction of invoices and their settlement	2
Lab 6	Inventory and accounting	2
Lab 7	Accounting for the reporting period, closing the year, using statements for self-monitoring	2
Lab 8	Additional passing grade and summary	2
	Total hours	15

TEACHING TOOLS USED
N1. Lecture with the use of a multimedia presentation N2. Computer software (for conducting classes in the form of a laboratory) N3. Quizzes N4. Practical exercises N5. To-do lists are performed individually in a computer lab N6. Discussion of the effects during the presentation of the results of the student's 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_W02; PEU_W03	Final test (lecture)
F2	PEU_U01; PEU_U02	Arithmetic mean of two tickets. 2 tickets in the form of a card from the balance sheet and the income statement

F3	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of the degree of involvement in the problems of solved tasks
F4	PEU_U01; PEU_U02	Final test (exercises)
F5	PEU_U02; PEU_U03; PEU_K01; PEU_K02; PEU_K03	Assessment of the degree of understanding of the issue
F6	PEU_U02; PEU_U03	Assessment of completed tasks
P (Lec) =F1 P (Cl) = 0,3*F2+0,1*F3+0,6*F4 P (Lab) = 0,4*F5+0,6*F6		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Micherda B., Podstawy rachunkowości Aspekty teoretyczne i praktyczne, Wydawnictwo Naukowe PWN, Warszawa, 2022 [2] Szczypka M., Podstawy rachunkowości - od teorii do praktyki, Warszawa, CeDeWu, 2022 [3] Rachunkowość finansowa: wprowadzenie: teoria, przykłady, zadania: Marzena Strojek-Filus, Ewa Wanda Maruszczyńska, Poltext ,2018	
<u>SECONDARY LITERATURE:</u>	
[1] Ustawa o rachunkowości, 2022 https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU19941210591/U/D19940591Lj.pdf [2] Hass-Symotiuik M., Głodek Z., Kludacz- Alessandri M., Nadolna B., Trocka M., Rachunkowość finansowa przedsiębiorstwa: od jego powstania do likwidacji, Wolters Kluwer , 2018 [3] Chałupczak J., Jacewicz A., Zasady rachunkowości: zbiór zadań z rozwiązaniami. cz. 1, ODDK , 2022	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr inż. Agnieszka Parkitna agnieszka.parkitna@pwr.edu.pl	

FACULTY MANAGEMENT**SUBJECT CARD****Name in Polish: Podstawy zarządzania****Name in English: Fundamentals of Management****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0101****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)	75	50			
Form of crediting	exam	credit with a 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)	1,2	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

none

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,

C2. management processes, functions, principles and tools,

C3. analyze and evaluate selected internal and inter-organizational relationships.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - has a basic knowledge of the goals, elements and types of organizations,

PEU_W02 - has a basic knowledge of the conceptual foundations and principles of management and student can interpret management functions,

PEU_W03 - explains and illustrates (at the basic level) the impact of the national and international environment and of inter-organizational relations on the activities of the organization.

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

relating to social competences:

PEU_K01 - is aware of the need to develop knowledge and skills in the science of organization and management

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

PROGRAMME CONTENT		
Form of classes - lecture		Number of hours
Lec 1	Organization and management - nature and object. Organizational information, program of classes, rules of the exam.	2
Lec 2	The essence of managing an organization	2
Lec 3	Process and scope of management	2
Lec 4	Kinds of managers	2
Lec 5	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	Organizational changes making	2
Lec 11	Motivating	2
Lec 12	Leadership styles	2
Lec 13	Leadership traits theory	2
Lec 14	Controlling in organizations	2
Lec 15	Decision making in organizations	2
	Total hours	30
Form of classes - class		Number of hours
Cl 1	The organizations and its models. Organizational information, program of classes, rules of the course.	2
Cl 2	People. Variety of personalities and interests groups	2
Cl 3	Organizational culture	2
Cl 4	Organizational goals. Multitude of goals and conflicts them	2
Cl 5	Technology. Kinds of technology, technology and social structure	2
Cl 6	Organizational structure dimensions	2
Cl 7	Basic types of organizational structure	2
Cl 8	Organizational environment	2
Cl 9	Organizational effect. Typologies of organizations	2
Cl 10	Analysis and evaluation of chosen organization's goals	2

Cl 11	Analysis and evaluation of chosen organization's technology	2
Cl 12	Analysis and evaluation of chosen organization's culture	2
Cl 13	Analysis and evaluation of chosen organization's organizational structure	2
Cl 14	Environment identification	2
Cl 15	Analysis and evaluation of relations between elements of chosen organization	2
	Total hours	30

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 EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_U01-3	Quizzes (during classes)
F2	PEU_U01-3, PEU_K01-3	Scoring students' involvement and presentations (during classes)
F3	PEU_W01-5	Exam
P1 (classess) = 0,5*F1+0,5*F2		
P2 (lecture) = F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Korzeniowski L.F., Podstawy zarządzania organizacjami, Difin, Warszawa 2019.
- [2] Griffin R.W.: Podstawy zarządzania organizacjami, PWN, Warszawa 2017.
- [3] Koźmiński A.K., Piotrowski W. [red.]: Zarządzanie. Teoria i praktyka, PWN, Warszawa 2022.

SECONDARY LITERATURE:

- [1] Hopej M.: Podstawy zarządzania, Oficyna Wyd. PWr, Wrocław 1999.
- [2] Steinmann H., Schreyögg G.: Zarządzanie. Podstawy kierowania przedsiębiorstwem, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2001.
- [3] Bielski M.: Podstawy teorii organizacji i zarządzania, C. H. Beck, Warszawa 2004.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Robert Kamiński, Robert.kaminski@pwr.edu.pl

FACULTY MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Praca licencjacka****Name of subject in English: Bachelor thesis****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0146D****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)				400	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				16	
including number of ECTS points for practical classes (P)				16	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				8,0	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Cross-sectional knowledge of the issues from the study.

SUBJECT OBJECTIVES

C1 Synthesis of the knowledge from the 1st degree studies and practical skills.

C2 Well-established skills of the scientific and technical information acquisition and application.

C3 Achieving efficiency at the professional level in the search for solutions to managerial problems.

C4 Preparing the dissertation basing on the knowledge from the study, information from the literature, analytical and practical work or the results of research.

SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU_U01 Is able to correctly identify a managerial problem and solve it with the use of appropriately selected methods, techniques and tools.

PEU_U02 Has the ability to collect and analyze information from various sources in the field of management and the use of methods, techniques and tools.

PEU_U03 Is able to develop a professional work - a text that accurately presents the results of work.

Project		Number of hours
Pr1	Analysis of the organization that is the subject of the work. Problem identification and analysis, preparation of the project assumptions.	4
Pr2	In-depth literature that concerns the issues addressed in the bachelor thesis, including methods, techniques and tools used to solve problems for the given class.	4
Pr3	Realisation of the project.	12
Pr4	Analysis of the possibility and desirability of proposed solutions application, its schedule, expected results and economics.	2
Pr5	Determination the steps of the future work concerning the issues that fall within the scope of the thesis.	2
Pr6	Edition of the dissertation.	6
	Total hours	30
TEACHING TOOLS USED		
N1.	Review of the literature.	
N2.	Interviews with the members of the organisation that is a subject of the work.	
N3.	Own work (both analytical and creative).	
N4.	Individual tutorial.	

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	Ongoing assessment of the systematic work and partial results.
F2	PEU_U01 PEU_U02 PEU_U03	Final evaluation of the work (dissertation).
$P = 0,5 \cdot F1 + 0,5 \cdot F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Literature concerning the issues of the thesis – own choice and recommended by the thesis supervisor.
<u>SECONDARY LITERATURE:</u> [1] Zenderowski R., Przewodnik po metodologii pisania i obrony pracy dyplomowej, CeDeWu 2020. [2] Yin Robert K., Studium przypadku w badaniach naukowych. Projektowanie i metody, Wydawnictwo Uniwersytetu Jagiellońskiego 2015. [3] Kwaśniewska K., Jak pisać prace dyplomowe. Wskazówki praktyczne, KPWS 2017. [4] Grzybowski P., Sawicki K., Pisanie prac i sztuka ich prezentacji, Impuls 2010. [5] Blein B., Sztuka prezentacji i wystąpień publicznych. RM 2010.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish** Praktyka**Name of subject in English** Professional Training**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL0021Q**Group of courses** NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)		0			
Number of hours of total student workload (CNPS)		150			
Form of crediting		Crediting with grade*			
For group of courses mark (X) final course					
Number of ECTS points		5			
including number of ECTS points for practical classes (P)		5			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0			

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Professional training should be carried out in the period starting (at the earliest) from the 4th semester.

SUBJECT OBJECTIVES

C1. Practical use of theoretical knowledge in the realities of the functioning enterprises and other economic organizations.

C2. Acquiring practical skills to develop and supplement the student's knowledge obtained in the studies.

C3. Developing the ability to cooperate and build professional relationships in the real conditions of the organization's functioning.

SUBJECT EDUCATIONAL EFFECTS**Relating to social competences:**

PEU_K01 The student is able to perform various roles in the organization / project teams, etc., in accordance with the expectations / preferences of the employer.

PEU_K02 The student is aware of the importance of the relationship between knowledge and managerial and business activity as well as responsibility for the decisions made.

PEU_K03 The student is aware of the necessity of independent learning and the necessity of continuous

improvement of professional qualifications in connection with economic and technological progress.
PROGRAMME CONTENT
The substantive scope of the internship is directly related to the diploma profile, each time agreed with the organization accepting the student for internship and written in the document "Framework program of internships" (Annex No. 2 to the Principles of student internships, WSZJK).

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_K01 PEU_K02 PEU_K03	Assessment based on a prepared professional training plan, approved by the employer.
P = F1		
<u>PRIMARY LITERATURE:</u> BOOK OF PROCESSES OF THE FACULTY OF EDUCATIONAL QUALITY ASSURANCE SYSTEM https://wz.pwr.edu.pl/o-wydzial/wydzialowy-system-zapewnienia-jakosci-ksztalowania/ksiega-procesow In particular, the point: 7. Implementation of student internships.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: PRAWO DLA MENEDŻERÓW****Name of subject in English: MANAGERES LAW****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st/ full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0165****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)	75				
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark final course with (X)	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)	2,4				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of the Polish Constitution.

SUBJECT OBJECTIVES

C1 To acquaint students with the basic principles of law functioning

C2 To acquaint students with selected EU and national legal regulations related to the creation, ongoing functioning and liquidation of enterprises

C3 Introducing to students based on the basic principles of legal responsibility of managers for making decisions

C4 Presentation of issues related to broadly understood competition and consumer protection

C5 Presenting the listeners with the basic principles of concluding civil law contracts

C6 Emphasizing the issues of property protection and related consequences

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 - Understands the basic legal provisions regulating the creation and functioning of economic organizations. Knows and understands the basic concepts and principles of industrial property protection.

PEU_W02 - Distinguishes and characterizes the basic types, kinds and forms of organization. Has knowledge of creating the content of contracts with contractors.

relating to skills:

PEU_U01 - He can initiate a business activity, selects the organizational and legal form.

PEU_U02 - He can use appropriate legal standards in specific activities in the organization.

PEU_U03 - He can search for and properly select the latest literature related to the legal aspects of the organization's functioning on the market.

relating to social competences:

PEU_K01 - He is prepared to communicate, persuade and defend his views in the name of achieving common goals.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction to the topic - the notion of law, of legal norm. EU and Polish law. Sources of Law. Division of law into branches. Civil rights and freedoms set out in the Polish constitution.	2
Lec 2	Introduction to civil law. The guiding principles of civil law. Structure and sources of civil law. Characteristics of legal entities (natural persons, legal persons). Legal capacity, legal capacity, the concept of natural persons. Incapacitation. Recognition for the deceased. The concept of European citizenship and citizenship. The passage of time as a civil law event (limitation of claims).	2
Lec 3	Ways of acquiring property rights (e.g. through a sales contract, prescription, waiver, inheritance) and ways of its loss (e.g. through a contract, destruction of property, abandonment of property). Basic rights to things (ownership, use, mortgage, pledge, easement)	2
Lec 4-6	The concept and essence of commercial law. Basic principles of commercial law. The concept of entrepreneur and enterprise. Place of commercial law in the legal system. Sources of commercial law. Business Constitution - a package of five acts with particular emphasis on the law: Entrepreneurs' Law. Rights and obligations of entrepreneurs. The concept of business activity. Forms of doing business.	6
Lec 7	Problems of business insolvency - restructuring and bankruptcy proceedings.	2
Lec 8	Execution of late payments. Enforcement proceedings in commercial matters. Mediation as a means of resolving disputes.	2
Lec 9-10	Competition and consumer protection. Protection of competition in the light of EU law. The role of entrepreneurs on the consumer market. The concept of consumer.	4

	Premises of consumer protection. Basic consumer rights. Consumer right to information. Consumer complaints - warranty, guarantee	
Lec 11	General information on labor law. The main principles of labor law. The procedure for concluding an employment contract. Basic types of employment contracts. Additional clauses in employment contracts. Ways to resolve disputes in labor law.	2
Lec 12-13	Management contract. The definition of manager. Legal responsibility of managers - the basis for this responsibility. Contract liability in business operations.	4
Lec 14	General information related to the protection of intellectual property in the business of the enterprise (concept, essence, elements)	2
Lec 15	Test	2
	Total hours	30
Classes		Number of hours
Cl 1-2	Characteristics of basic civil law contracts part 1 (sale, rent, order, work)	4
Cl 3-4	Characteristics of basic civil law contracts part 2 (leasing, commission, agency contract, insurance)	4
Cl 5-6	Agreements closely related to business operations (factoring, franchising)	4
Cl 7	The procedure for setting up a sole proprietorship. The role and place of a civil law partnership in business transactions	2
Cl 8-9	The role and place of partnerships in business transactions. Characteristics of partnerships (general partnership, limited partnership, partnership, limited joint-stock partnership).	4
Cl 10-11	Capital companies in business trading. Establishment of a limited liability company (place of establishment, formalities, costs). Statute of the company z o.o. Shareholders and shares in the company z o.o. The share capital of the limited liability company Company organs z o.o. Dissolution and liquidation of a limited liability company. Establishment of joint-stock (place of establishment, formalities, costs). Statute of a joint-stock company. Shareholders and shares in a joint-stock company. The share capital of a joint-stock company. Joint Stock Bodies. Dissolution and liquidation of a joint-stock company. Transforming capital companies into other companies	4
Cl 12	Merging, dividing and transforming companies	2
Cl 13	Prohibited Commercial Practices. Aggressive commercial practices. Not allowed clauses	2
Cl 14	Material and organizational responsibility of employees. Employers' liability. Catalog of sanctions provided for breach of basic obligations by the employee and employer.	2
Cl 15	Test	2
	Total hours	30

TEACHING TOOLS USED
N1. Traditional lecture using transparencies and slides
N2. Consultations
N3. Own work - independent studies

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_U01 PEU_U02 PEU_U03 PEU_K01	Lecture with multimedia presentation, Presentations of listeners. Frequency.
F2	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_U03 PEU_K01	Activity
F3	PEU_W01 PEU_W02	Test
$P(\text{lectures}) = 0,1 \cdot F1 + 0,2 \cdot F2 + 0,7 \cdot F3$ $P(\text{classes}) = 0,4 \cdot F1 + 0,1 \cdot F2 + 0,5 \cdot F3$ $P = 0,7 \cdot P(\text{lectures}) + 0,3 \cdot P(\text{classes})$		
PRIMARY AND SECONDARY LITERATURE		
PRIMARY LITERATURE: [1] A.Filipowicz, Podstawy prawa dla ekonomistów. Podręcznik dla studentów ekonomii, zarządzania i administracji, Wydawnictwo C.H. Beck [2] A.Kidyba, Prawo handlowe, Wydawnictwo C.H.Beck [3] J. Gospodarek (red.), Umowy gospodarcze - zagadnienia wybrane, Wydawnictwo SGH [4] E.Tomaszewska, Prawo pracy dla menedżerów, Wydawnictwo Difin. [5] M. Jagielska, M. Kabut, E. Pietrusińska, M. Pietrusiński, R. Pietrusiński, I. Postuła, <i>Prawo cywilne w zarządzaniu i działalności gospodarczej</i> . Wyd.2. Wydawnictwo Uniwersytetu Warszawskiego.		
SECONDARY LITERATURE: [1] J.A.Witosz, A. Witosz, Prawo gospodarcze dla ekonomistów, Wydawnictwo Wolters Kluwer. [2] K. Zymonik, Odpowiedzialność za produkt w zarządzaniu innowacyjnym przedsiębiorstwem, Wydawnictwo Difin, Warszawa 2015. [3] J. Jacyszyn (red.), Umowy handlowe w pytaniach i odpowiedziach, Wydawnictwo LexisNexis.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Krzysztof Zymonik, krzysztof.zymonik@pwr.edu.pl		

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: PRAWO PRACY****Name of subject in English: LABOUR LAW****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st/ full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0116****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 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)	0,6				1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of the Polish Constitution and the rules of law.

SUBJECT OBJECTIVES

C1 Presenting the basic principles of labor law

C2 To acquaint students with current labor market regulations

C3 To acquaint students with the basic rights and obligations of the employee and employer

C4 Creating a basis for students to move independently and freely among the complex legal mechanisms of the labor market (both as an employee and employer)

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 - Knows the basic rights and obligations of employees and employers

PEU_W02 - Has knowledge of the legal conditions for the functioning of the organization in terms of employment relationship, in particular the conclusion and termination of employment contracts.

PEU_W03 - Explains social influences on relations between employers and employees.

relating to skills:

PEU_U01 - He can apply basic legal norms in relations between employers and employees

PEU_U02 - He can search and properly select the latest literature and the problem of labor law relating to social competences:
 PEU_K01 - It is prepared to be active not only in those fields that directly result from management studies.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1-2	Introduction to the problems - the concept of labor law, the place of labor law in the legal system, entities of labor law, the origin of labor law, premises for the protection of employees, basic rights and obligations of the employee and the employer. Bodies creating labor law provisions. Presentating of examples of problems in the field of labor law	4
Lec 3	Basic principles of labor law. Sources of labor law. Labor Code as a key source of labor law. Work regulations as an internal source of labor law. The role and importance of an employment contract in the relationship between employer and employee. Elements of the employment contract. Ways of establishing an employment relationship.	2
Lec 4	Ways of terminating employment contracts	2
Lec 5	Employee leaves, with special regard to vacation leave	2
Lec 6	Material and organizational responsibility of employees. Overtime work, night time, holidays.	2
Lec 7	Solving practical problems related to labor law	2
Lec 8	Test	1
	Total hours	15

Seminar		Number of hours
Sem1-3	Characteristics of civil law contracts regulating relations between employers and employees (mandate contract, specific task, agencies, etc.). Modern forms of employment (telework). Self-employment. Provision of work by a temporary employment agency.	6
Sem 4	Solving practical problems related to labor law.	2
Sem 5	Managerial contracts. The role and essence of contracts. Managers' responsibility.	2
Sem 6	Mobbing in the workplace. The concept and premises. Employer's responsibility	2
Sem 7-8	Working time in the employer - employee relationship (Legal basis, working time, working time and breaks at work, overtime, at night, on public holidays)	4
Sem 9	Employee remuneration (Legal basis, the notion of remuneration, rights and obligations of the parties in relation to remuneration, late payment of remuneration, components of remuneration - fixed and additional components of remuneration)	2
Sem10	Protection of women's work (Legal basis, work prohibited to women, work of women at night, overtime, rights of pregnant women, benefits motherhood. Protection against change of employment relationship, maternity leave, parental leave, etc.)	2
Sem 11	Protection of young people's work (Legal basis, concept of young worker, rights and obligations of the parties in the contract with young people, work prohibited to young people)	2
Sem 12	Solving practical problems related to labor law.	2
Sem	Taking up employment by Poles in selected countries of the European Union (labor	4

13-14	market in a given country and formal requirements with seeking and taking up employment by Poles).	
Sem 15	Test	2
	Total hours	30

TEACHING TOOLS USED

N1. Traditional lecture using transparencies and slides

N2. Consultations

N3. Own work - independent studies

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_U02 PEU_K01	Lecture with multimedia presentation, Presentations of listeners. Frequency.
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_U02	Activity
F3	PEU_W01 PEU_W02 PEU_W03	Test

$P(\text{lectures}) = 0,1 \cdot F1 + 0,2 \cdot F2 + 0,7 \cdot F3$

$P(\text{seminar}) = 0,4 \cdot F1 + 0,1 \cdot F2 + 0,5 \cdot F3$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Ludwik Florek, Tadeusz Zieliński, Prawo pracy, Wydawnictwo C.H. Beck, Wydanie 19, Warszawa 2017.
- [2] Jakub Stelina Jakub (red), Prawo pracy, Wydawnictwo C.H. Beck, Wydanie 4, Warszawa 2018
- [3] Ewa Tomaszewska, Prawo pracy dla menedżerów, Difin, Warszawa 2015.
- [4] Teresa Liszcz, Prawo pracy, Wolters Kluwer, Warszawa 2018.

SECONDARY LITERATURE:

- [1] Kodeks pracy (najaktualniejszy stan prawny)
- [2] Małgorzata Barzycka-Banaszczyk, Angelika Grzelachowska-Larek, Grzegorz Larek, Prawo pracy – pytania, kazusy, tablice, testy, C.H.Beck, Warszawa 2019.
- [3] Zygmunt Żaro, Umowy cywilnoprawne, Wydawnictwo Sigma, 2019.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Krzysztof Zymonik, krzysztof.zymonik@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Projektowanie innowacji****Name of subject in English: Innovation design****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0147****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 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)	0,6			1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essential knowledge of management

SUBJECT OBJECTIVES

C1. Gaining knowledge about innovation, creativity, new product development, and innovation processes management

C2. Developing creativity related skills in New Product Development processes

In terms of knowledge:

PEU_W01 - Is able to explain the role of innovation and related concepts in the development of corporate strategy

PEU_W02 - Knows methods and techniques that support innovative and creative activities

In terms of skills:

PEU_U01 – Is able to carry out a new product development process in response to a market needs analysis

PEU_U02 - Can use sources of information, methods and techniques supporting creative and

innovative processes		
From the scope of social competences:		
PEU_K01 - Has the ability to solve group design problems related to the introduction of changes and an engaged analysis of user needs		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Introduction and crediting rules	1
Lec 2	New Product Development (NPD)	2
Lec 3	Design Thinking method	2
Lec 4	Creative processes support	2
Lec 5	Design Management	2
Lec 6	Innovation and sustainable design	2
Lec 7	Innovation and organisational culture and workspace	2
Lec 8	Test	2
	Total hours	15
Project		Number of hours
Proj 1	Introduction and crediting rules	2
Proj 2	Design methodology	2
Proj 3	Exploration	2
Proj 4	Empathy	2
Proj 5	Identification	2
Proj 6	Interpretation	2
Proj 7	Ideation	2
Proj 8	Experimenting	2
Proj 9	Prototyping 1	2
Proj 10	Tests 1	2
Proj 11	Prototyping 2	2
Proj 12	Tests 2	2
Proj 13	Final prototype	2
Proj 14	Presentation	2
Proj 15	Grading	2
	Total hours	30
Seminar		Number of hours
Sem 1		
	Total hours	
TEACHING TOOLS USED		

N1. Informative lecture
N2. Multimedia 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
F1 (lecture)	PEU_W01, PEU_W02, PEU_K01	test
F2 (project)	PEU_U01, PEU_U02, PEU_K01,	discussion
F3 (project)	PEU_U01, PEU_U02, PEU_K01,	project
P (project) = 0.5*F2 + 0.5*F3 P (lecture) = F1		

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 Dzikowski, adam.dzikowski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Projektowanie małego biznesu****Name of subject in English: Small business designing****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0141****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 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)	0,6			1,2	

*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: Providing students with knowledge about the processes of creating, developing and managing a small and micro enterprise with particular emphasis on sole proprietorship.

C2: Shaping the ability to develop a multi-variant business plan for a small business

C3: Inspiring students to start their own business and shaping practical skills and ethical entrepreneurial behavior

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01: Knows and understands the concept of entrepreneurship. Knows and understands the basic economic, legal, ethical and other conditions of running a business.

PEU_W02: He has knowledge of the process of starting a small business, in particular in a form of a sole proprietorship. He knows the basic methods, tools and techniques useful in the process of designing a small business.

relating to skills:

PEU_U01: Can interact with other people as part of teamwork.

PEU_U02: Is able to use the acquired knowledge - formulate and solve problems by proper selection of sources and information derived from them, to evaluate, critically analyze and synthesize this information, and to select and use appropriate methods and tools.

relating to social competences:

PEU_K01: Is ready to think and act in an entrepreneurial manner

PEU_K02: He is prepared to communicate, persuade and defend his own views.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational classes - the range of the lecture, course completion criteria and the literature. The enterprise in the conditions of the market economy (conditions and barriers to business activity, business environment of the enterprise).	2
Lec 2	Entrepreneurship, entrepreneur, enterprise - defining entrepreneurship; the role, responsibility and characteristics of the entrepreneur; the essence, attributes and goals of enterprises functioning.	2
Lec 3	Quantitative and qualitative criteria for distinguishing small business - classification of enterprises. Enterprise life cycle. Managerial decisions at the founding stage: business idea (product as a carrier of value for the client, name as a carrier of knowledge about the organization) and a business plan.	2
Lec 4	Managerial decisions at the founding stage: sources of funding. Small business support system.	2
Lec 5	Managerial decisions at the founding stage: choice of the legal form (advantages and disadvantages of the enterprise functioning in different legal forms, registration obligations.	2
Lec 6	Managerial decisions at the founding stage: choosing the taxation form.	3
Lec 7	Managerial decisions at the founding stage: financial analysis (costs of setting up and running a business) - profitability assessment, break-even analysis.	1
Lec 8	Final test checking students' knowledge	1
	Total hours	15
Project		Number of hours
Proj 1	Organizational classes: 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. Overview of the design tool - business model.	2
Proj 2	Establishment of project teams. Discussion on the business plan construction and the ways of creating it (information sources, methods and techniques supporting the analysis of plan variants).	2
Proj 3	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: analysis of the market	2

	environment, justification of the business idea. Work in project teams - consulting substantive problems, assessing the progress of students' work.	
Proj 4	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: business idea - product / service characteristics and target market description. Presentation of the business model (canvas model). Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 5	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: analysis of available resources, characteristics of the planned method of producing / providing services. Presentation of the business model (canvas model). Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 6	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: forms and costs of employing workers; social insurance and the obligations of the employer and payer towards the Social Insurance Institution and the Tax Office. Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 7	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: SWOT analysis. Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 8	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: investment plan and sources of financing. Work in project teams - consulting substantive problems, assessing the progress of students' work	2
Proj 9-10	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: financial analysis Work in project teams - consulting substantive problems, assessing the progress of students' work.	4
Proj 11	Presentation of selected preliminary versions and fragments of the business plan (student presentations), analysis and discussion: choosing the form of taxation - financial analysis.. Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 12	Registration obligations: "applying " - by students - of the proposed business activity for registration (obligatory element: documents required for the registration of sole proprietorship or other selected organizational and legal form).. Work in project teams - consulting substantive problems, assessing the progress of students' work.	2
Proj 13	The deadline for the submission of reports documenting the entire small business project (business plan). Overview of the presentation of the project.	2
Proj 14-15	Project presentations (pitch deck) - discussion and evaluation of the presentation. Summary of the classes.	4
	Total hours	30

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. Student self-studying - literature studies, preparation of a business model and business plan.
 N6. Planning tool – MS Excel

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;	Final written test
Lecture: P= 100% F1		
F2	PEU_U01; PEU_U02; PEU_K01	Student's activity during the classes – participation in discussions
F3	PEU_U01; PEU_U02;	Presentation – business model
F4	PEU_U02; PEU_U03; PEU_U04	Presentation - business plan
F5	PEU_03; PEU_04; PEU_K01	Final Report (written)
P (Project): P= 0,2F2+0,15F3+0,5F4+0,15F5		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[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 2018.		
[3] Musiałkiewicz J., Podejmowanie i prowadzenie działalności gospodarczej, Wyd. Ekonomik, Warszawa 2019.		
<u>SECONDARY LITERATURE:</u>		
[1] Jeleńska A. , Własna firma – jak założyć i poprowadzić?, Forum Doradców Podatkowych, Kraków 2013.		
[2] Młodzikowska D., Lunden B., Jednoosobowa firma. Jak założyć i samodzielnie prowadzić jednoosobową działalność gospodarczą, Wyd. BL Info Polska Sp. z o.o., Gdańsk 2012		
[3] Mućko P., Sokół A., Jak założyć i prowadzić działalność gospodarczą w Polsce i w wybranych krajach europejskich, CeDeWu, Warszawa 2012.		
[4] Tokarski M., Tokarski A., Wójcik J., Jak solidnie przygotować profesjonalny biznesplan, CeDeWu, Warszawa 2012.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Anna Zabłocka-Kluczka; Anna.Zablocka-Kluczka@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Przedsiębiorczość - podejmowanie, wdrażanie i prowadzenie działalności gospodarczej

Name of subject in English: Entrepreneurship – initiation, establishment and conducting economic activity

Main field of study (if applicable): Management

Specialization (if applicable): Business management

Profile: academic

Level and form of studies: 1st, full-time

Kind of subject: optional

Subject code: W08ZZZ-SL0142

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)	0,6			1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of fundamental terms and issues of marketing, civil law, commercial law, and enterprise finance.

SUBJECT OBJECTIVES

C1 Acquiring knowledge of the principles of creating and presenting a business plan.

C2. Acquiring the skills to develop a business plan.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows the principles of creating a business plan.

relating to skills:

PEU_U01 Can draw up a business plan for a small enterprise.

PEU_U02 Can find and use up-to-date information on external conditions and regulations concerning economic activity.

relating to social competences:

PEU_K01 Shows openness to constructive criticism and is oriented toward factual argumentation in teamwork.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	The rules of passing the course. Entrepreneurship, sources of business ideas	1
Lec 2	Economic activity - legal framework	2
Lec 3	Methods of macro-environment analysis	2
Lec 4	Methods of analyzing the competitive environment and the company's potential	2
Lec 5	Financial report - indicators	2
Lec 6	Marketing plan	2
Lec 7	Sources of financing	2
Lec 8	Business plan implementation. Final test	2
	Total hours	15
Project		Number of hours
Proj 1	The rules of passing the course. Business plan (structure and content)	2
Proj 2	Procedure for starting a business. Project consultation. Comments on current economic problems.	2
Proj 3	1st stage of the project: Selection of the enterprise's scope and form - presentations and discussions. Comments on current economic problems.	2
Proj 4	Methods for analyzing the macro-environment, the competitive environment and the company's potential. Marketing MIX. Project consultation. Comments on current economic problems.	2
Proj 5	2nd stage of the project: Enterprises in a micro and macro environment - presentations and discussions. Comments on current economic problems.	2
Proj 6	Financial reports and financial indicators. Project consultation. Comments on current economic problems.	2
Proj 7	3rd stage of the project: financial indicators - presentations and discussions. Comments on current economic problems.	2
Proj 8	Marketing plan. Project consultation. Comments on current economic problems	2
Proj 9	4 th stage of the project: Marketing plan - presentations and discussions. Comments on current economic problems.	2
Proj 10	Sources of financing for enterprises. Project consultation. Comments on current economic problems.	2
Proj 11	Financial forecasts. Project consultation. Comments on current economic problems.	2
Proj 12	5th stage of the project: Financial forecasts - presentations and discussions. Comments on current economic problems.	2
Proj 13	Project consultation. Comments on current economic problems.	2
Proj 14-15	Collection and presentation of projects.	4
	Total hours	30

TEACHING TOOLS USED
N1. multimedia presentation N2. consultation N3. discussion N4. group work ended with the presentation of the results

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	Project's presentation
F2	PEU_U01 PEU_U02	Sub-tasks' presentation
F3	PEU_U02 PEU_K01	Discussion
F4	PEU_W01 PEU_U01 PEU_U02	Project
F5	PEU_W01	Written exam
P (lecture) = F5 P (project) = F1 + F2 + F3 + F4 F1 up to 30 points, F2 up to 30 points, F3 up to 30 points, F4 up to 10 points. 91-100 points 5.0 81-90 points 4.5 71-80 points 4.0 61-70 points 3.5 51-60 points 3.0		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Dziekoński M., Kozielski R., *Jak szybko przygotować profesjonalny plan marketingowy?*, Wydawnictwo Nieoczywiste, Warszawa, 2017.
- [2] Hermaniuk T., *Biznesplan. Pytania i odpowiedzi*, Difin, Warszawa 2014.
- [3] *Ustawa o swobodzie działalności gospodarczej z 2 lipca 2004 z póź. zm.*

SECONDARY LITERATURE:

- [4] Gierszewska G., Romanowska M., *Analiza strategiczna przedsiębiorstwa*, PWE, Warszawa 2017.
- [5] Kłosowska B., Voss G., Hutarska A., *Analiza finansowa w praktyce*, Difin, Warszawa 2018
- [6] Makiela Z. (red.) *Przedsiębiorczość i zarządzanie innowacjami: wiedza, technologia, konkurencja, przedsiębiorstwo*, CeDeWu, Warszawa 2016.
- [7] *Ustawa o podatku dochodowym od osób fizycznych z 26 lipca 1991 z póź. zm.*

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Rafał Miśko, rafal.misko@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Przyczynowo-skutkowa diagnostyka finansowa przedsiębiorstwa

Name of subject in English: Cause and effect financial diagnosis of the company

Main field of study (if applicable): Management

Specialization (if applicable): Business management

Profile: academic

Level and form of studies: 1st, full-time*

Kind of subject: optional

Subject code: W08ZZZ-SL0092P

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)				125	
Form of crediting				crediting with grade	
For group of courses mark final course with (X)					
Number of ECTS points				5	
including number of ECTS points for practical (P) classes				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Student should have basic knowledge in accounting and finance

SUBJECT OBJECTIVES

C1 Acquiring the ability to synthetically diagnose the financial condition of an enterprise in a specific area.

C2 Acquiring the ability to diagnose the causes of the financial state of an enterprise.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 demonstrates ordered knowledge for synthetically diagnosing the company's financial condition in a specific area,

PEU_W02 characterizes and knows the methods of synthetic diagnosis of the company's financial condition in a specific area,

PEU_W03 knows the tools needed to diagnose the financial condition of an enterprise in a specific area,

relating to skills:

PEU_U01 is able to put into practice the methods of diagnosing financial states in a specific area of the organization,

PEU_U02 is able to diagnose the financial states of enterprises in a specific area,
 PEU_U03 is able to identify the causes of the financial state of an enterprise,
relating to social competences:
 PEU_K01 is aware of the importance of cause-and-effect analysis in business practice,
 PEU_K02 Is aware of the need to constantly improve his own knowledge and development and is ready to act in an entrepreneurial manner
 PEU_K03 Is aware of the ethical obligations related to the professional role of diagnostics and is prepared to initiate changes in the workplace

PROGRAM CONTENT		
Project		Number of hours
Proj 1	Presentation of the assumptions for the workshop and a preliminary discussion of the importance of knowledge about cause-and-effect analysis	2
Proj 2	Basic, substantive problems of financial analysis oriented on the assessment of financial results and financial condition of the enterprise	2
Proj 3	Metodologiczne problemy analizy finansowej zorientowanej na ocenę wyników finansowych i kondycji finansowej przedsiębiorstwa	2
Proj 4	Basic conditions of financial phenomena	2
Proj 5-6	Cause-effect analysis methods	4
Proj 7	Financial data problem sets	2
Proj 8-9	Conducting a financial analysis based on data from a selected enterprise regarding the selected problem	4
Proj 10-11	Conducting a financial analysis based on data from a selected enterprise regarding the selected problem	4
Proj 12	Conducting a financial analysis based on data from a selected enterprise regarding the selected problem	2
Proj 13	Formulation and visualization of conclusions from the analysis	2
Proj 14-15	Project defense	4
Total hours		30

TEACHING TOOLS USED
N1. Multimedia presentation N2. group work N3. Presentation of the diagnostic work N4. Discussion of the effects during the presentation of the results of the student's 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_W02; PEU_W03	Participation in problem discussions
F2	PEU_U01; PEU_U02 PEU_U03	Assessment of group work

F3	PEU_U01; PEU_U02; PEU_U03	Preparation of diagnostic work in the form of a project
F4	PEU_U01; PEU_U02; PEU_U03; PEU_K01; PEU_K02; PEU_K03	Project defense
P= 0,2*F1+0,3*F2+0,4*F3+0,1*F4		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] M.Sierpińska, T.Jachna Ocena przedsiębiorstwa według standardów światowych, 2022, PWN, Warszawa:	
[2] Kołosowska B., Voss G., , Huterska A., Analiza finansowa w praktyce, 2018, Dyfin, Warszawa	
[3] E.Radosiński. Sprawozdawczość finansowa, 2020 ,PWN, Warszawa	
<u>SECONDARY LITERATURE:</u>	
[1] Kotowska B., Uziębło A., Wyszowska-Kaniewska, O., Analiza finansowa w przedsiębiorstwie - przykłady, zadania i rozwiązania , 2021,,: CeDeWu, Warszawa	
[2](red) Gołębiowski G., Grycuk A., Tłaczała A., Wiśniewski P., Analiza finansowa przedsiębiorstwa. Wydanie 3, 2020, Dyfin, Warszawa	
[3] Gabrusewicz W., Metody analizy finansowej przedsiębiorstwa, 2022, PWE, Warszawa	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr inż. Agnieszka Parkitna; agnieszka.parkitna@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Psychologia****Name of subject in English: Psychology****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0102****Group of courses: Yes**

	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				
Form of crediting	crediting with grade				
For group of courses mark final course with (X)	x				
Number of ECTS points	2				
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)	1,8				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. No requirements

SUBJECT OBJECTIVES

C1 Learning basic psychological knowledge in the form of main concepts, laws and relationships

C2 Understanding the mechanisms of behavior regulation and diagnosing methods

C3 Acquiring the ability to interpret behavior in the natural contexts

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_PEU_W01 (K1_ZARZ_W19) - he has a basic knowledge of the psychology and sociology of the organization. He interprets basic human concepts and explains theories of motivation. He characterizes the essence and determinants of leadership.

relating to skills:

PEU_U01 (K1_ZARZ_U10) - he is able to identify, interpret and evaluate the behavior of members of the organization and use typical techniques of influencing these behaviors.

relating to social competences:

PEU_K01 (K1_ZARZ_K04) - He is prepared to identify and analyze social problems in the workplace. He is able to look flexibly for ways to solve them.

PEU_K02 (K1_ZARZ_K06) - He is prepared to communicate, persuade and defend his views in the name of achieving common goals. Is prepared to behave in a professional and ethical manner.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Psychology as a science of human behavior. Psychology among other sciences. Organizational issues.	2
Lec 2	The role of temperament and personality in the regulation of human behavior	2
Lec 3	The role of emotions and motivation in regulating behavior	2
Lec 4	Orientation processes in the environment - Information perception processes (perception, attention and memory)	2
Lec 5	Intelligence and human information processing (thinking, problem solving, decision making)	2
Lec 6	Psychopathology of human behavior. Behavioral mechanisms of abnormality. Mental dysfunctions and disorders	2
Lec 7	An individual in a society; functioning in a group.	2
Lec 8	Person – work. Functioning of the individual in the work environment. Test	2
	Total hours	15

Seminars		Number of hours
Se1	Introduction to organizational and occupational psychology. Psychology in human life. Seminar organization and criteria of student evaluation.	2
Se2	Basic human concepts	2
Se3	Common concepts of human nature	2
Se4	Biological basis of behavior	2
Se5	Attributes of information processing - perception	2
Se6	Attributes of cognitive processing in human life and work - memory	2
Se7	Attributes of cognitive processing in human life and work - learning	2
Se8	The role of emotions in regulating behavior	2
Se9	The role of motivational processes in human life	2
Se10	Human developmental processes and their role in human life	2
Se11	The role of personality traits in regulating behavior	2
Se12	Types of psychopathology in human behavior	2
Se13	Social mechanisms of human behavior	2
Se14	Social mechanisms of human behavior, cont.	2
Se15	Summary and evaluation of the effects of students' work	2
	Total hours	30

TEACHING TOOLS USED
N1. Lecture supported by audiovisual materials N2. Individual tasks N3. Multimedia presentations N4. Moderated discussion N5. Team exercises and stasks N6. Case studies N7. Simulations N8. Media materials

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 (lecture)	PEU_W01; PEU_U01; PEU_K01; PEU_K02	Test
F2 (seminar)	PEU_W01; PEU_U01; PEU_K01; PEU_K02	Task 1, task 2, activity
P = (F1 + F2)/2		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Gerrig, R.J., Zimbardo, P.G. (2012). *Psychologia i życie*. Warszawa: Wydawnictwo Naukowe PWN: rozdziały 4-8, 11-13, 16
- [2] Hock, R.R. (2003). *40 prac badawczych, które zmieniły oblicze psychologii. Fascynująca podróż w krainę nauki*. Gdańsk: GWP
- [3] Strelau, J. (2016). *Różnice indywidualne. Historia-determinanty-zastosowania*. Warszawa: SCHOLAR

SECONDARY LITERATURE:

- [1] Strelau, J., Doliński, D. (red.) (2010). *Psychologia akademicka. Podręcznik*. T.1-2. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- [2] Aronson, E., Wilson, T.D., Akert, R.M. (2007). *Psychologia społeczna. Serce i umysł*. Poznań. Zysk i Spółka.
- Aronson, E. (2004). *Człowiek istota społeczna*. Warszawa: PWN

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Beata Bajcar, beata.bajcar@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Rozwiązywanie problemów menedżerskich****Name of subject in English: Solving managerial problems****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0148****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 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 in lecturers and other academics (BU)	0,6	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of the following courses: basic of management and organizational behavior.

SUBJECT OBJECTIVES

The aim of the course is to define guidelines for solving managerial problems:

C1. Acquiring knowledge in the field of effective team management and solving managerial problems

C2. Ability to solve organizational conflicts

C3. Acquiring knowledge in the field of formulation of entrepreneurial and innovative initiatives

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Has ordered knowledge of the methods of making management decisions

PEU_W02 Has knowledge of the ways, methods, techniques and tools for solving group conflicts

relating to skills:

PEU_U1 Has skills in identifying and solving organizational problems

relating to social competences:

PEU_K01 Is prepared to initiate changes in the organization and participate in their planning and implementation

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational lecture - discussion of the principles of the organization of lecture and the conditions for passing. Organizational environment and its impact on managerial decisions	2
Lec 2	Tools and techniques for analyzing the organizational environment	2
Lec 3	Creating competitive advantages	2
Lec 4	Manager in the face of strategic challenges	2
Lec 5	Organizational leadership on how to be an effective leader	2
Lec 6	Organizational conflicts and ways to resolve them	2
Lec 7	The process of communication behavior in the organization	2
Lec 8	Final work - evaluation work in the form of an essay.	1
	Total hours	15

Classes		Number of hours
Cl 1-2	Organizational classes - discussion of the principles of the organization of classes and the conditions for passing. Case study: Leaders as decision architects	4
Cl 3-4	Case study: Searching for objective employee assessment	4
Cl 5-6	Case study: Ethics of organizational behavior	4
Cl 7-8	Case study: Breaking down barriers when seeking agreement - simulation and case study	4
Cl 9-10	Case study: Openness as a new leadership imperative	4
Cl 11-12	Case study: Trap of transparency	4
Cl 13-14	Case study: Effective global teams	4
Cl 15	Summary of classes, presentation of results	2
	Total hours	30

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation N2. Presentation of case studies N3. Problem discussion N4. Teamwork N5. Own 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_W02	Final work in the form of an essay
F2	PEU_01; PEU_K01	Case study solution
F3	PEU_01; PEU_K01	Activity
P(lecture)=F1 P(classes)=0,5*F2+0,5*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] <u>Kozak</u> A., Sowińska-Wróbel A., Siła lidera, PWN Warszawa 2020 [2] <u>Jakubicz</u> M., Lider w trampkach czyli jak być przywódcą w zgodzie ze sobą, Infor 2020 [3] <u>Paliszkiewicz</u> J., Przywództwo, zaufanie i zarządzanie wiedzą w innowacyjnych przedsiębiorstwach, CeDeWu Warszawa 2020 <u>SECONDARY LITERATURE:</u> [1] Czasopisma ICAN Management Review i MIT Sloan Management Review, Studia przypadków [2] Marketing - studia przypadków, prod red. Anny M.Nikodemskiej-Wołowik, Uniwersytet Gdański, Gdańsk, 2000 [3] Grzesk L., Doroszewicz K., Stojanowska E., Umiejętności menedżera, WSHp, Warszawa 2001 SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) Dr hab. inż. Radosław Ryńca, prof. uczelni. radosław.rynca@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Rynek pracy i promocja zatrudnienia****Name in English: Labor Market and Promoting Employment****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0138****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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	0,6	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Examination course of microeconomics and macroeconomics

SUBJECT OBJECTIVES

C1. Learning and understanding the theory and principles of labor law

C2. Developing the ability to understand the principles of labor law in the context of employment and the labor market.

SUBJECT EDUCATIONAL EFFECTS**Related to knowledge:**

PEU_W01 Has knowledge of the basic principles of labor law.

PEU_W02 Knows the conditions and dependencies of the labor market and its importance for the functioning of the organization, including methods, techniques and tools enabling adaptation of the organization's activities in the context of changes taking place on the labor market.

Related to skills:

PEU_U01 Is able to use theoretical knowledge in the field of labor law and related scientific disciplines in order to analyze and interpret economic problems related to employment policy.

Related to social competences:

PEU_K01 Can discuss possible practical solutions in the field of labor law and is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT		
Form of classes – lecture		Number of hours
Lec 1	Organizational lecture.	1
Lec 2	Labor market policy. Labor market institutions.	2
Lec 3	Public Employment Services. Volunteer labor corps, employment agencies. Labor market services. Labor market instruments.	2
Lec 4	Code employment contracts (legal regulation, the concept of an employment contract, components of the contract - obligatory and optional, contract form, types of employment contracts). Other grounds for performing work (civil law contracts - commission, specific work and teleworking). Differences between code employment contracts and civil law contracts; their advantages and disadvantages.	2
Lec 5	Unemployment benefits. Labor Fund.	2
Lec 6	Social security: retirement and disability insurance.	2
Lec 7	Social security: health.	2
Lec 8	Final test	2
Total hours		15

	Form of classes - class	Number of hours
Cl1	Organizational classes. Introduction to the labor market.	2
Cl2	Labor market - basic issues	2
Cl3	Employment contracts, contract components - obligatory and optional, contract form, types of employment contracts.	2
Cl4	Civil law contracts - mandate, contract for specific work, and teleworking.	2
Cl5-6	The unemployed - the concept and types, benefits, social insurance, labor fund	4
Cl7-8	The concept of migration. The causes and effects of migration. Free movement of workers in the European Union. Emigration from Poland after integration with the European Union.	4
Cl9	Profiling the unemployed and addressing active labor market programs.	2
Cl10	Social security.	2
Cl11	Retirement and disability insurance in Poland and selected countries.	2
Cl12	Retirement and disability insurance - settlement.	2
Cl13-14	Health insurance in Poland and selected countries.	4
Cl15	Final test	2
Total hours		30

TEACHING TOOLS USED

N1. Lecture with the use of a multimedia presentation
 N2. Discussion
 N3. Case studies

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	Final test grade (at least 60%)
F2	PEU_U01; PEU_K01	Assessment of the test from the exercises.
F3	PEU_U01; PEU_K01	Assessment of activity
P (lecture) = F1 P (classes) = $0,6 \cdot F2 + 0,4 \cdot F3$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] L. Florek, Ł. Pisarczyk, *Prawo pracy*, C.H.BECK, Warszawa 2021
- [2] Z. Wiśniewski; C. Sadowska-Snarska (red.), *Praca i rynek pracy w perspektywie gospodarki 4.0*, Wydawnictwo Adam Marszałek, Warszawa 2021
- [3] A. Szydlik-Leszczyńska, *Funkcjonowanie współczesnego rynku pracy. Wybrane uwarunkowania*, Warszawa 2012.

SECONDARY LITERATURE:

- [1] Ustawa o promocji zatrudnienia i instytucjach na rynku pracy z 20.04.2004, Dz. U. 2004 Nr 99 poz.1001 z późniejszymi zmianami.
- [2] Ustawa z dnia 13 czerwca 2003 r. o zatrudnieniu socjalnym (Dz. U. Nr 122 z 14 lipca 2003 r., poz. 1143 z późn. zm.).
- [3] Ustawa o systemie ubezpieczeń społecznych z 13.10.1998 r., Dz. U. nr 137, poz. 887 i nr 162, poz. 1118 i poz. 1126, późn. zm., z 1999 r., Dz. U. nr 26, poz. 228; nr 60, poz. 636; nr 72, poz. 802; nr 78, poz. 875; nr 110, poz. 1256 z 2000 r., Dz. U. nr 9, poz. 118; nr 95, poz. 1041; nr 104, poz. 1104; nr 119, poz. 1249, z 2001 r., Dz. U. nr 8, poz. 64; nr 27, poz. 298; nr 39, poz. 459; nr 72, poz. 748; nr 100, poz. 1080, nr 110, poz. 1189; nr 111, poz. 1194; nr 130, poz. 1452; nr 154, poz. 1792; z 2002 r., Dz. U. nr 25, poz. 253, nr 41, poz. 365.
- [4] Ustawa o powszechnym ubezpieczeniu w Narodowym Funduszu Zdrowia z 23.01.2003 r., Dz. U. nr 45, poz. 391.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr hab. inż. Małgorzata Rutkowska, prof. Uczelni malgorzata.rutkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: RYNKOWA OCHRONA KONSUMENTÓW****Name of subject in English: MARKET CONSUMER PROTECTION****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st/ full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0118****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 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)	0,6				1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of the Polish Constitution.

SUBJECT OBJECTIVES

C1 To familiarize listeners with basic consumer rights

C2 Clear emphasis on the fact that each economic organization is responsible for products placed in the market

C3 Presentation of the most important regulations in the field of relations between consumers and entrepreneurs

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 - He knows the basic rights of consumers in contracts with entrepreneurs

PEU_W02 - Knows the basic law governing mutual relations between consumers and entrepreneurs.

relating to skills:

PEU_U01 - Is able to apply solutions regarding product liability in practice

PEU_U02 - He can search and properly select the latest literature related to consumer rights on the market

relating to social competences:

PEU_K01 - It is prepared to be active not only in those fields that directly result from management studies.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction to the issues: the concept of consumer law, the place of consumer law in the legal system, subjects of consumer law, the origin of consumer law, premises for consumer protection, basic consumer rights.	2
Lec 2	Enforcement of consumer claims - institutions protecting consumer rights, consumer arbitration courts, consumer legal redress, situations exempting entrepreneurs from complaint liability. Analysis of sample court case law in consumer matters.	2
Lec 3-5	Complaints - the most important terms related to complaints: warranty, manufacturer's warranty, non-compliance of the goods with the contract, complaint procedures for the sale of goods, obligations of the seller and manufacturer, consumer rights, sale of goods in promotion and on sale, presentation of practical examples	6
Lec 6-7	Consumer safety and health - the most important EU regulations in the field of consumer life and health protection, concept of a dangerous product, responsibility for a dangerous product, restrictions sent, protection releases issued, general practices presentation	4
Lec 8	Test	15
	Total hours	

Seminar		Number of hours
Sem 1-2	Modern forms of sales - off-premises and distance sales, with particular emphasis on online sales, prerequisites for consumer protection in such sales, basic consumer rights related to such sales, presentation of practical examples	4
Sem 3-4	Institutions protecting consumer rights (Municipal and Poviát Consumer Ombudsman, Trade Inspection, Consumer Federation, Consumer Association, Office of Competition and Consumer Protection, European Consumer Center)	4
Sem 5	Solving practical problems related to modern forms of sales	2
Sem 6-7	The most common consumer contracts and traps associated with them (sales, rent, insurance, banking services contract, consumer credit)	4
Sem 8-9	Complaints about services - general solutions from the Civil Code, complaints about selected services (telecommunications, transport and tourist services), complaints about air services, the essence of down payment and advance payment, presentation of practical examples	4
Sem 10-11	Consumer safety and health - the most important EU regulations in the field of consumer life and health protection, the concept of a dangerous product, responsibility for a dangerous product, conditions of liability, conditions for releasing the producer from liability, presentation of practical examples, prevention solutions in the field of consumer safety, the most important obligations of economic organizations in this respect, the powers of market surveillance authorities, withdrawing a dangerous product from the market, Rapex System, CE marking, examples of products with CE marking	4
Sem 12	Solving practical problems related to modern forms of sales	2

Sem 13	Prohibited clauses in contracts with consumers - conditions for recognizing a given entry as prohibited, practical examples of prohibited entries. Prohibited practices used by entrepreneurs - premises for recognizing a given practice as prohibited, major sanctions for using such practices.	2
Sem 14	Consumer credit solutions. The concept of consumer credit. Rights and obligations of the parties. Presentation of the most common problems associated with this loan	2
Sem 15	Test	2
	Total hours	30

TEACHING TOOLS USED

N1. Traditional lecture using transparencies and slides
N2. Consultations
N3. Own work - independent studies

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_U01 PEU_U02 PEU_K01	Lecture with multimedia presentation, Presentations of listeners. Frequency.
F2	PEU_W01 PEU_W02 PEU_U01 PEU_U02	Activity
F3	PEU_W01 PEU_W02	Test
$P(\text{lectures}) = 0,1 \cdot F1 + 0,2 \cdot F2 + 0,7 \cdot F3$ $P(\text{seminar}) = 0,4 \cdot F1 + 0,1 \cdot F2 + 0,5 \cdot F3$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Krzysztof Zymonik, Odpowiedzialność za produkt w zarządzaniu innowacyjnym przedsiębiorstwem, Difin, Warszawa 2015.
- [2] Monika Jagielska, Elżbieta Sługocka-Krupa, Krzysztof Podgórski (red.), Ochrona konsumenta na rynku usług, C.H.Beck, Warszawa 2016.
- [3] Monika Jagielska (red.), Sprzedaż konsumencka w teorii i praktyce, C.H.Beck, Warszawa 2016.
- [4] Bogusława Gneta, Kinga Michałowska (red.), Współczesne wyzwania prawa konsumenckiego, C.H.Beck, Warszawa 2016.
- [5] Monika Jagielska, Odpowiedzialność za produkt, Wolters Kluwer, Warszawa 2009.

SECONDARY LITERATURE:

- [1] K. Zymonik, Gwarancja producencka (komercyjna), „Problemy Jakości” 2008, nr 2.
- [2] K. Zymonik, Oznakowanie CE - nowe wyzwanie dla polskich przedsiębiorców, Problemy Jakości 2005, nr 10, s.9-13.
- [3] Rafał Adamus, Nowa upadłość konsumencka, Difin, Warszawa 2015.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Krzysztof Zymonik, krzysztof.zymonik@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Seminarium dyplomowe****Name of subject in English: Diploma Seminar****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0026S****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)					25
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					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)					0,6

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Crosssectional knowledge of the issues from the study.

SUBJECT OBJECTIVES

C1 Preparing students for the bachelor thesis realisation in accordance with the requirements obligatory at the faculty – lecturer's and students' assistance in the topic and the aim of the diploma thesis formulation or their disambiguation, the work structure planning.

C2 Acquiring the skills of writing a dissertation to present own achievements – from the problem identification, the tasks planning, the appropriate sources use, to the work realisation and the interpretation of the results (all with the editorial requirements consideration).

C3 Improving the skills of presenting to the audience: own ideas, concepts and planned solutions in a comprehensible manner.

C4 Reinforcing the skill of creative discussion, give a possibility of factual and substantive explanation and defence of the own point of view, pay attention to especially important elements and flawed or ignored aspects of the planned work.

C5 Preparing the students for diploma exam.		
SUBJECT EDUCATIONAL EFFECTS relating to skills: PEU_U01 Can identify (at the bachelor level) a managerial problem and plan its solution using appropriate methods, techniques and tools. PEU_U02 Can elaborate a piece of work in the form of the dissertation. PEU_U03 Can prepare a presentation to deliver the results of the analysis and the concepts of problem solving. PEU_U04 Can incisively substantiate own ideas and solutions, evaluate the planned activities and solutions of other students in a critical way.		
Seminar		Number of hours
Se1	Organizational seminar: an introduction to the course, the plan and the organization of the classes, the rules of credit receiving. Short introduction to the range of the studies and the specialisation of the faculty different departments (websites of the departments).	1
Se2	Presentation of the requirements of the university and of the faculty that concern diploma thesis. Diploma process and schedule. The criteria of accepted disambiguation in the diploma thesis topic. Rules of the managerial problem identification and formulation, the formulation of diploma thesis topic and aim. The examples of well-defined and incorrect topics/aims of the bachelor thesis. Recommendation of the tutorials with prospective supervisors – to recount during the next classes. Presentation and discussion concerning the progress of thesis topic and supervisor choices (1).	2
Se3	Presentation of the diploma thesis declaration form – topic, aim, scope, structure. Discussion of the dissertation construction – the order of the content, an introduction and a conclusion. The common errors. Presentation and discussion concerning the progress of the diploma thesis topic and supervisor choices (2) .	2
Se4	Requirements concerning dissertation edition. Presentation of the methods of the literature sources access, analysis and quoting. Consultation concerning the first version of the diploma thesis declaration. Discussion. The allotment of the date of diploma thesis progress individual presentation. Consultation and planning the work scope in current semester (to pass the course).	2
Se5	Presentation of the dissertation evaluation criteria (review form). The notion of the plagiarism, system for plagiarism detection. Recommendations concerning preparation of the dissertation chapter expected to	2

	pass the course. Approval of the final version of the diploma thesis declaration. Presentation, consultation and discussion about the problems and progress in the thesis realisation. Recommendations concerning the ways of the work progress presentation during the coming seminars.	
Se6	Presentation of the diploma exam elements. Exam issues and questions. Presentation, consultation and discussion about the problems and progress in the thesis realisation. Individual presentations of the work progress and the plans of the thesis realisation (1). Discussion.	2
Se7	Individual presentations of the work progress and the plans of the thesis (2). Discussion.	2
Se8	Individual presentations of the work progress and the plans of the thesis (3). Discussion.	2
	Total hours	15

TEACHING TOOLS USED

- N1. Presentations of the selected issues concerning thesis topics.
- N2. Multimedia presentation – own and adopted (positive and negative examples).
- N3. Problem discussion, recognizing the ideas advantages and critic their drawbacks.
- N4. Individual tutorial concerning students' problems with the work planning and realisation.

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	On-time submission of the thesis declaration (topic, aim, problem, concept, draft structure) and its evaluation.
F2	PEU_U03	Evaluation of the preparation to the seminar and presentation of the thesis realisation progress and plans of the future work.
F3	PEU_U04	Contribution to the discussion.
F4	PEU_U02	Initial part of the dissertation (characteristics of the object, the problem, the methods and tools used in problem solving).
$P = 0,2 \cdot F1 + 0,2 \cdot F2 + 0,2 \cdot F3 + 0,4 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Literature concerning the issues of the thesis – own choice and recommended by the thesis supervisor.

SECONDARY LITERATURE:

- [1] Zenderowski R., Przewodnik po metodologii pisania i obrony pracy dyplomowej, CeDeWu 2020.
- [2] Yin Robert K., Studium przypadku w badaniach naukowych. Projektowanie i metody, Wydawnictwo Uniwersytetu Jagiellońskiego 2015.
- [3] Kwaśniewska K., Jak pisać prace dyplomowe. Wskazówki praktyczne, KPWS 2017.
- [4] Grzybowski P., Sawicki K., Pisanie prac i sztuka ich prezentacji, Impuls 2010.
- [5] Blein B., Sztuka prezentacji i wystąpień publicznych. RM 2010.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Socjologia****Name of subject in English: Sociology****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level , full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0105S****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)	75				
Form of crediting	zaliczenie na ocenę				
For group of courses mark final course with (X)	x				
Number of ECTS points	3				
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)	2,4				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1. Acquiring general knowledge about the mechanisms of social and professional life and their impact on the functioning of the organization.

C2. Acquiring knowledge about social and professional roles, their social conditions and changes taking place in their scopes.

C3. Acquainting with the methods and techniques of social research.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 has systematic knowledge of the mechanisms of social construction of reality, social, professional and organizational roles and attitudes

PEU_W02 has systematic knowledge of social processes, conflicts and changes characteristic of modern societies and organizations

PEU_W03 knows the basic tools of social research

relating to skills:

PEU_U01 schematizes the requirements, conflicts and the influence of social and professional roles on the behaviour of social actors, understands the role of trust and identifies the consequences of belonging to social groups

PEU_U02 is able to use the basic tools of sociological research and knows the rules of their construction

relating to social competences:

PEU_K01 is aware of the importance of social processes and problems for the functioning of modern organizations

PEU_K02 is ready to take into account social mechanisms to analyze social and professional attitudes and to take responsibility for them

PEU_K03 is aware of the necessity of individual and team activities going beyond the activities related to the field of study.

PROGRAM CONTENT		
Lecture		Number of hours
Lec 1	Organizational classes – presentation of the principles of organizing the lecture and the rules of credit. Subject of sociology and sociology of organizations	2
Lec 2-3	Theories of society and organization	4
Lec 4	Culture and its social significance. Corporate Culture	2
Lec 5-6	Microsocial level – social groups, social interactions in the work process, team in the organization	4
Lec 7-8	Mesosocial level – communities, communities, organizations	4
Lec 9-10	Macrosocial level – classes, strata, social inequalities, the state, types of social order and the nature of the economic system	4
Lec 11-12	Tools of sociology. Research methods and techniques	4
Lec 13-14	Selected problems of contemporary societies and organizations	4
Lec 15	Final test	2
	Total hours	30

Seminar		Number of hours
Sem 1	Organizational information and rules of subject passing. The subject of sociology and sociology of organization. Basic concepts and definitions.	2
Sem 2	Micro-social level - social groups, social interactions in the work process, a team in an organization.	2
Sem 3	Meso-social level - communities and organizations	2
Sem 4	Macrosocial level - classes, layers, social inequalities, types of social order, social changes	2
Sem 5	Time and task management. Ability to work under pressure.	2
Sem 6	Groups and teams in organizations.	2
Sem 7-8	Culture and its social importance. Organizational culture.	2
Sem 9-10	Organizational norms and values. Behavior and attitudes of employees.	2
Sem 11-12	Characteristics of a contemporary employee. Goals and behavioral characteristics of modern employees.	2
Sem 13-14	Social changes and trends.	2
Sem 15	Methods and techniques in social research.	2
	Total hours	30

TEACHING TOOLS USED		
N1. lecture with the use of a multimedia presentation N2. students' own presentations N3. discussion N4. case studies N5. group work ended with the presentation of the results		

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	Measurement of preparations presentations
F2	PEU_W01, PEU_W02, PEU_W03	Measurement of preparations for the panel discussion
F3	PEU_U01, PEU_U02, PEU_K01, PEU_K02, PEU_K03	Measurement of case study preparation
F4	PEU_U01, PEU_U02, PEU_K01, PEU_K02, PEU_K03	Measurement of the effects of group work
$P = 0,25F1 + 0,25F2 + 0,25F3 + 0,25F4$		

PRIMARY AND SECONDARY LITERATURE	
PRIMARY LITERATURE: [1] Budnik M., <i>Socjologia pracy w zarysie</i> , Difin, Warszawa, 2019 [2] Giddens A., <i>Socjologia</i> , PWN, Warszawa 2022 [3] Sztompka P., <i>Socjologia. Analiza społeczeństwa</i> , Znak, Kraków 2002	
SECONDARY LITERATURE: [1] Elliot A., <i>Współczesna teoria społeczna</i> , PWN, Warszawa 2010. [2] Morawski W., <i>Socjologia ekonomiczna</i> , PWN, Warszawa 2012. [3] Sztompka P., <i>Socjologia zmian społecznych</i> , Znak, Kraków 2005.	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr Jagoda Mrzygłocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Statystyka opisowa**Name of subject in English:** Descriptive Statistics**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Management**Profile:** academic**Level and form of studies:** 1st/ level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL0106**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 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)	1,0		1,0		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Competences acquired in the course: Mathematics

SUBJECT OBJECTIVES

C1 Knowledge of descriptive and induction statistics.

C2. The ability to draw conclusions based on data.

C3 The ability to use IT tools supporting the data analysis process.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 Knowledge of the basic statistical tools that allows to draw conclusions based on data.

PEU_W02 Knowledge the R package environment (or other package) for statistical analysis.

relating to skills:

PEU_U01 The ability to apply statistical methods as tools supporting decision making processes.

PEU_U02 The ability to use R package (or other package) in statistical data analysis.

PROGRAM CONTENT		
Lectures		Number of hours
Lec1	Conditions of obtaining credit. Set theory and elements of combinatorics.	2
Lec2-3	Fundamentals of probability. Independence of the events and conditional probability. The traps of probabilistic thinking.	4
Lec4-5	One-dimensional random variable: probability distribution, distribution function, density function. Selected distributions of random variables. Characteristics of random variables.	4
Lec6-7	Population, sample, random and representative sample. Types of variables and their measurement, measurement scales. Numerical methods of statistical description.	3
Lec8	Outliers, examination of relationships between variables.	2
Lec9	Graphical presentation of a variable distributions.	2
Lec10	Principles of data visualization. Types of charts and their role in communication. Good practices in the construction of tables.	2
Lec11	Exploratory data analysis - case study.	2
Lec12	Point and interval estimation. Sample size estimation.	3
Lec13	Basics of testing statistical hypotheses.	2
Lec14	Selected parametric and non-parametric tests.	2
Lec15	Summary of the lecture content.	2
	Total hours	30
Laboratory		Number of hours
Lab1	Conditions of obtaining credit, guidelines for the organization of classes. Introduction to tools supporting data analysis.	2
Lab2-3	Operations on variables and observations: selection of variables and observations for analysis, transformation of variables, adding variables to a data set, data reshaping.	4
Lab4	Operations on data sets: transforming data, importing and saving data sets, joining data sets.	2
Lab5	Combinatorial schemes, calculating probabilities and conditional probabilities. Investigating the independence of events.	2
Lab6	Application of selected distributions to calculate probabilities.	2
Lab7	Descriptive statistics in the analysis of statistical data.	2
Lab8-9	The grammar of graphics. Data visualization.	4
Lab10	Mini project: topic selection, data collection and preliminary data preparation.	2
Lab11-12	Mini project: exploratory data analysis, report preparation.	4
Lab13	Construction of confidence intervals. Determining the sample size.	2
Lab14	Testing parametric and nonparametric hypotheses.	2
Lab15	Test	2
	Total hours	30

TEACHING TOOLS USED
N1. Presentation N4. Solving problems N3. Case study N5. Data analysis using a statistical program

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	mini project
F2	PEU_U01, PEU_U02	written test
F3	PEU_U01, PEU_U02	exam
P(lecture) = F3 P(lab.) = 0.7*F1 + 0.3*F2, if F2 is possitive.		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Aczel A. D., Sounderpandian J. *Statystyka w zarządzaniu*. Wydawnictwo Naukowe PWN, Warszawa 2018.
- [2] Kapłon R., *Wprowadzenie do analizy danych - instrukcja laboratoryjna*. Wrocław 2019

SECONDARY LITERATURE:

- [1] Kowal J., *Metody statystyczne w badaniach sondażowych rynku*. Wydawnictwo Naukowe PWN, Warszawa 1998.
- [2] Gatnar E., Walesiak M. (red.) *Statystyczna analiza danych z wykorzystaniem programu R*. Wydawnictwo Naukowe PWN, Warszawa 2009.
- [3] Krysicki W., Bartos J., Dyczka W., Królikowska K., Wasilewski M. *Rachunek prawdopodobieństwa i statystyka matematyczna w zadaniach. Część 2 – Statystyka matematyczna*. Wydawnictwo Naukowe PWN, Warszawa 2012.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Robert Kapłon; robert.kaplon@pwr.wroc.pl
 Dr Elżbieta Jasińska elzbieta.jasinska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Systemy informatyczne zarządzania****Name of subject in English: Management Information Systems****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0145****Group of courses: YES**

	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)	75				
Form of crediting	crediting with grade		crediting with grade		crediting with grade
For group of courses mark final course with (X)	X				
Number of ECTS points	3				
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)	2.4				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about functioning of an organization.
2. Essentials of information requirements analysis and system modeling.

SUBJECT OBJECTIVES

C1 Familiarizing students with management information systems (MIS) issues.

C2 Familiarizing students with the features of the selected MIS.

C3 Preparation for selecting MIS for a specific organization.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 Student has the knowledge about the structure of the MIS.

PEU_W02 Student has the knowledge about the classification, methods of selection and implementation of the MIS

PEU_W03 Student is familiar with basic functionality of MIS in various business areas.

relating to skills:

PEU_U01 Student is able to analyze the functionality of specific MIS.

PEU_U02 Student can identify the business requirements of the organization, understands the their importance in the information systems design, selection and implementation.

PEU_U03 Student is able to state basic criteria of MIS selection for specific organization.

relating to social competences:

PEU_K01 Ability to search for information and analyze it critically.

PEU_K02 Development of the team working skills.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Presentation of subject and rules of crediting. Information system and computer system in organization.	2
Lec 2	Identification of business needs. System selection criteria. Methods and rules of MIS selection.	2
Lec 3	Basic terms and definitions concerning MIS.	2
Lec 4	Different classifications of MIS.	2
Lec 5	The possibilities of the system acquiring – advantages and disadvantages of different attitudes.	2
Lec 6	Cloud, its models i use (including SaaS)	2
Lec 7	Functionality of MIS for different business areas.	2
Lec 8 Lec 9	Integrated systems and their evolution.	4
Lec 10 Lec 11	The fundamentals of MIS building and implementation. The problems concerning the implementation of the new system in the organization.	4
Lec 12	CRM, WSM systems. Computer systems in supply chain management.	2
Lec 13	Global and local market of MIS.	2
Lec 14	Security of computer systems. Audit of computer systems in organization. Test	2
Lec 15	MIS development prospects. Retake	2
	Total hours	30
Laboratory		Number of hours
Lab 1	Introduction, rules of crediting.	1
Lab 2 Lab 3	Choice of the organization and the area of management. Functional requirements analysis.	4
Lab 4	Preparation to the MIS selection: development of the selection algorithm, the choice of the selection criteria, the choice of the staff involved.	2

Lab 5	The analysis of the MIS detailed functionalities. Survey of the MIS	4
Lab 6	market.	
Lab 7	Comparison of selected systems according to developed criteria. Optimal MIS choice and its justification.	2
Lab 8	Conclusion, evaluation of the reports.	2
	Total hours	15
Laboratory		Number of hours
Sem 1	Introduction, rules of crediting, assignment of topics	1
Sem 2	Advanced management systems in the warehouse and HRM	2
Sem 3	Management IT systems supporting the production area.	2
Sem 4	Information systems for transport management.	2
Sem 5	Information systems for management in education (different levels).	2
Sem 6	Information systems for management in health care.	2
Sem 7	Information systems for management in other areas. Methods of testing the effectiveness of management information systems.	2
Sem 8	Summary, additional topics and rating..	2
	Total hours	15
TEACHING TOOLS USED		
N1. Traditional lecture with Power Point presentations and videos. N2. Familiarization with selected MIS based on training materials. N3. Student's own work – preparation for laboratories and seminars. N4. 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
F1	W01-W03	Test
F2	U01-U03 K01-K02	Preparation for each laboratory
F3	U02-U04 K01-K03	Report
F4	PEU_U01 PEU_K01 PEU_K02	Presentation during the seminar

F5	PEU_U01 PEU_K01 PEU_K02	Activity during the seminar
$P = 0,5 \cdot F1 + 0,3 \cdot (0,4 \cdot F2 + 0,6 \cdot F3) + 0,2 \cdot (0,7 \cdot F4 + 0,3 \cdot F5)$ ocena wg punktowej skali ocen		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Banaszak Zb., Kłos S., Mleczo J.: Zintegrowane systemy zarządzania. PWE, Warszawa 2016. [2] Jurek J.: Wdrożenia informatycznych systemów zarządzania. PWN, Warszawa 2016. [3] Kijewska A.: Systemy informatyczne w zarządzaniu. Wydawnictwo Politechniki Śląskiej, Gliwice 2005.		
<u>SECONDARY LITERATURE:</u>		
[1] Kisielnicki J.: Systemy informatyczne zarządzania, PLACET, Warszawa 2013. [2] Czasopisma np. Computerworld [3] Materiały informacyjne dostawców systemów		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Ewa Pralat ewa.pralat@pwr.edu.pl Adam Wasilewski adam.wasilewski@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Technologie informacyjne**Name of subject in English:** Information technology**Main field of study:** Management**Specialization:****Profile:** academic**Level and form of studies:** 1st level studies, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL0005**Group of courses:** YES

	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		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course			X		
Number of ECTS points			2		
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)			1.0		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None.

SUBJECT OBJECTIVES

C1 To acquire knowledge of the selected tools and methods used to support gathering, processing, analyzing, presenting data and their applications in organizations.

C2 To acquire the skills to use selected IT tools at an advanced level, for management support.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has basic knowledge of information technologies used to acquire, collect, process and present data, and in particular, knows tools and methods of text processing, data calculations, analysis, visualization and presentation of results and their applications in organizations, nowadays and future trends.

PEU_W02 Understands importance of security and protection of data and intellectual property. Knows cyberattack techniques and preventive measures.

relating to skills:

PEU_U01 Can use appropriate features of selected software and Internet services to address challenges in word processing, calculations and economic analysis, and to visualize, collect and integrate results.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction to the lecture. Discussing the conditions of obtaining credit. Digital technology fundamentals.	1
Lec 2	Tools and methods used to support data calculating, analysis and visualization.	2
Lec 3	Advanced functions and methods of data analysis and simulations in a spreadsheet	2
Lec 4	Tools, methods and advanced features of text processing	2
Lec 5	Exchanging data objects between applications – the OLE technique. Tools and techniques of preparing and conducting a business presentation.	2
Lec 6	Security and protection of data and intellectual property in organization.	2
Lec 7	Cybersecurity. Common threats and prevention.	2
Lec 8	Future trends in business IT applications. Crediting.	2
Total hours		15

Laboratory

Laboratory		Number of hours
Lab 1	Introduction to the lab classes. Discussing the conditions of obtaining credit. The computer lab environment and safety rules.	1
Lab 2	Basic spreadsheet features and functions.	2
Lab 3	Advanced functions and methods of data gathering, analysis and visualization in a spreadsheet.	4
Lab 4	Tools and methods of text processing.	4
Lab 5	Elective task.	2
Lab 6	Failed assignments retake and final remarks.	2
Total hours		15

TEACHING TOOLS USED

N1. Traditional lecture with overhead slides
 N2. Demonstration of selected features and functions of software tools using a PC and an overhead projector
 N3. Short movies demonstrating selected features of software tools
 N4. Assignments to carry out individually in the computer lab or at home
 N5. Discussion of the achievements (causes of failures if applicable) during each presentation of students' results

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation (F – forming during	Learning outcomes code	Way of evaluating learning outcomes achievement

semester), P – concluding (at semester end)		
F1	PEU_U01	Assessment of the lab task results and understanding of the solutions
F2	PEU_W01, PEU_W02, PEU_U01	Bonus credit points.
F3	PEU_W01, PEU_W02	Class attendance and activity.
P(lecture) = F3 P(laboratory) = 0,7*F1 + 0,2*F3 + 0,1*F2 P(GK) = 0,2*P(lecture) + 0,8*P(laboratory)		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Wrotek W., Office 2019, Helion 2019. [2] Masłowski K., Excel 2019. Ćwiczenia zaawansowane, Helion 2020. [3] Ciekanowski Z., Wojciechowska-Filipek S., Bezpieczeństwo funkcjonowania w cyberprzestrzeni: jednostki - organizacji - państwa, CeDeWu 2020. <u>SECONDARY LITERATURE:</u> [1] Winston W., Microsoft Excel 2019 Analiza i modelowanie danych biznesowych, Promise 2020. [2] Cichocki M., Przetwarzanie danych w Excelu. Laboratorium Power Query, Helion 2020. [3] Miernik R., Molendowska M., Bezpieczeństwo w cyberprzestrzeni. Wybrane zagadnienia, Marszałek 2021.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Wiesław Dobrowolski, wieslaw.dobrowolski@pwr.edu.pl

FACULTY OF MANAGEMENT**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): Zarządzanie Przedsiębiorstwem****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0033L****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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1,2		

*delete as applicable

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: Improving the ability to develop simple computer systems (MS Excel worksheets) supporting the process of working out decisions in a company.
- C2: Deepening the ability to use the developed computer system in making prognosis on the economic and financial output of a simulated company.
- C3: Improving abilities to make use of the developed 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.
- C5: Preparation for working in a decision-making team.

SUBJECT LEARNING OUTCOMES

relating to knowledge

PEU_W01: Student is able to identify factors affecting the effectiveness of operations in key functional areas of the business/company.

relating to skills:

PEU_U01: Student is able to develop a simple computer system (DSS_G) supporting the process of working out decisions in a simulated company, and encompassing selected functional areas of that company.

PEU_U02: Student is able to use the developed system DSS_G in preparing prognosis of the economic and financial situation of a simulated company as well as to identify the main reasons for the discrepancies between these prognosis and the real situation of that company.

PEU_U03: Student is able to make an effective use of the system DSS_G in the management of the simulated company.

PEU_U04: Student is able to identify (analyze) the main reasons for the differences in financial and economic outcomes of competing companies acting on the same market.

relating to social competences:

PEU_K01: Student is able to think and act in an entrepreneurial manner.

PEU_K02: Students is able to function in various roles in decision-making processes in the company.

PROGRAMME CONTENT

Form of classes - laboratory		Number of hours
Lab 1	Discussion of the course completion criteria and the main work stages. Organizational issues. 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: <i>Work in Process</i> ; <i>Finished Products</i> ; <i>External Warehouses</i> ; <i>Natural Environment</i> .	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</i> ; <i>Credits</i> ; <i>Cash Flow</i> . Discussion of the requirements to be met during the <i>Test Game</i> . 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 main game.	2
Lab 7	Running the <i>Main Game</i> .	2
Lab 8	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 9	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 10	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 11	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 12	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 13	Discussion of the main results achieved by the teams in the <i>Main Game</i> (teaching person). Presentation of the <i>Final Reports</i> prepared by teams (students).	2
Lab 14	Presentation of the <i>Final Reports</i> prepared by teams (continuation).	2

Lab 15	Presentation of the <i>Final Reports</i> 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 – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_U01	Answering questions; Test; Short tests; Results of the <i>Test Game</i>
F2	PEU_U02 PEU_W01	Evaluation of the prognosis prepared for selected months with the help of the system DSS_G; Discussions
F3	PEU_U03 PEU_K01 PEU_K02	Evaluation of the results achieved by teams in the <i>Main Game</i>
F4	PEU_U04	Evaluation of the presentation of the Final Report
$P = 0,2 \cdot F1 + 0,1 \cdot F2 + 0,4 \cdot F3 + 0,3 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Rzońca W., Business Game *COMPANY* - user's manual, appendices and supplementary materials (eportal.pwr.edu.pl)
- [2] Jones J., Moven M., Hansen D., Heitger D., Rich J., Financial and Managerial Accounting: The Cornerstones of Business Decisions, South-Western Cengage Learning, 2012 (chosen parts)
- [3] Drury C., Management Accounting for Business, Cengage Learning EMEA 2009 (chosen parts)

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Mariusz Mazurkiewicz mariusz.mazurkiewicz@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Trening kreatywności i techniki twórczego myślenia
Name of subject in English: Creativity training and creative thinking techniques
Main field of study (if applicable): Management
Specialization (if applicable): Business management
Profile: academic
Level and form of studies: 1st level, full-time studies
Kind of subject: optional
Subject code: W08ZZZ-SL0114S
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)					1,2

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of psychology.

SUBJECT OBJECTIVES

C1 Acquiring by the student knowledge in the field of the psychology of creativity and creative activity and their individual, social and organizational determinants.
 C2 To acquaint students with methods and tools supporting creativity of individual and group activities.
 C3 Presentation of social, organizational and individual factors of success in creative business.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – Ma wiedzę dotyczącą psychologicznych mechanizmów i czynników sprzyjających kreatywności.

PEU_W02 – Zna podstawowe metody, techniki i narzędzia wzbudzające myślenie twórcze w procesie rozwiązywania problemów menedżerskich.

relating to skills:

PEU_U01 Potrafi zastosować podstawowe techniki i narzędzia kreatywności w rozwiązywaniu problemów menedżerskich w sposób oryginalny i niestandardowy.

relating to social competences:

PEU_K01 Jest gotów do elastycznego poszukiwania sposobów twórczego rozwiązywania problemów w miejscu pracy.		
PROGRAMME CONTENT		
Seminar		Number of hours
Se1	Theories of creative problem solving. Presentation of the purpose of seminar and criteria of student evaluation.	2
Se2	The significance of creativity in business – the creative industry	2
Se3	Individual and organizational barriers to creativity	2
Se4	Methods of measuring and stimulating creative thinking; individual characteristics of creative people and entrepreneurs	2
Se5	Creative techniques to stimulate cooperation	2
Se6	Overcoming obstacles to problem solving – the so-called crushing and fixing problems	2
Se7	Stimulating cognitive curiosity, generating new problems in the development of individual creativity	2
Se8	Principles and conditions for the effectiveness of the brainstorming technique	2
Se9	Techniques of creative inductive and deductive thinking - synectics	2
Se10	Creative thinking techniques based on creative associations and abstract thinking	2
Se11	Individual of creative techniques thinking based on metaphorical and transformational thinking	2
Se12	Creative self-esteem and creative group climate building	2
Se13	Developing creativity training – integration of creative thinking techniques	2
Se14	Analysis of integrative techniques of creative thinking in creativity training	2
Se15	Summary of classes – assessment and self-assessment of the acquired skills of creative thinking	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture N2. Group exercises N3. Simulations N4. Team work N5. 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
F1	PEU_W01, PEU_W02 PEU_U01, PEU_K01	Task 1 - Creative problem solving

F2	PEU_W01, PEU_W02 PEU_U01, PEU_K01	Task 2 – preparation of the task for creativity developing
F3	PEU_W01, PEU_W02 PEU_U01, PEU_K01	Activity during classes and discussions
$P = F1*0.4 + F2 *0.4+ F3 *0.2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Proctor, T. (2002). <i>Twórcze rozwiązywanie problemów</i> . Gdańsk: GWP		
[2] Nęcka, E. red. (2001). <i>Trening twórczości</i> . Gdańsk: GWP		
<u>SECONDARY LITERATURE:</u>		
[1] Nęcka, E. (2001). <i>Psychologia twórczości</i> . Gdańsk: GWP		
[2] Szmidt, K.J. (2013). <i>Trening kreatywności. Podręcznik dla pedagogów, psychologów i trenerów grupowych</i> . Gliwice: Wydawnictwo Helion.		
[3] West, M. (2000). <i>Rozwijanie kreatywności wewnątrz organizacji</i> . Warszawa: PWN		
[4] Morgan, M. (2001). <i>Wyobrażenia organizacyjna</i> . Warszawa: PWN		
[5] Duhigg, Ch. (2016) <i>Mądrzej, szybciej, lepiej</i>		
[6] Kosieradzka, A. (red.) (2015) <i>Metody i techniki pobudzania kreatywności w organizacji i zarządzaniu</i> .		
[7] Piwowar-Sulej, K. (2019). <i>Profesjonalne zarządzanie szkoleniami w organizacjach</i> . Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Beata Bajcar, beata.bajcar@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Ubezpieczenia w zarządzaniu przedsiębiorstwem****Name of subject in English: Insurance in business management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st/ full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0144****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 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)	0,6				1,2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of management.
2. Basic knowledge of financial management
3. Knowledge of the basics of law.

SUBJECT OBJECTIVES

- C1. Acquiring knowledge about social and economic insurance in business management.
 C2. Acquiring knowledge and skills regarding the use of insurance products to protect the property, capital and human resources of an enterprise.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

- PEU_W01 Knows the basic concepts of social and economic insurance.
 PEU_W02 Demonstrate knowledge of insurance products dedicated to enterprises.
 PEU_W03 Knows the basic methods, techniques and tools for solving managerial problems.

relating to skills:

- PEU_U01 Is able to prepare an initial proposal of an insurance program for an enterprise based on risk assessment and insurance products available on the market.

PEU_U02 Is able to independently use a variety of Polish and foreign-language sources of information, in particular professional literature. Is able to integrate the obtained information and use it in order to deepen specialist knowledge related to the field of social sciences, the discipline of management sciences.

PEU_U03 Understands listened and read texts on general and scientific topics related to the field of social sciences, the discipline of management sciences. Can express himself / herself (verbally and in writing), participate in discussions and present his opinions in an international professional environment - in a foreign language.

relating to social competences:

PEU_K01 Is aware of the importance of social and economic insurance in enterprise management.

PEU_K02 Is prepared to communicate, persuade and defend own views in the name of achieving common goals. Is prepared to behave in a professional and ethical manner.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction to the lecture, discussion of organizational matters. Passing rules..	1
Lec 2	Basic concepts (risk, insurance, types and functions of insurance). Social and economic insurance system.	2
Lec 3	Insurance products for enterprises - purchase process and claim settlement process (general insurance conditions, insurance premium).	2
Lec 4	Property insurance in the protection of the property potential of an enterprise .	2
Lec 5	Insurance of rights and obligations in the protection of the capital potential of an enterprise ..	2
Lec 6	Personal insurance in the protection of the human potential of an enterprise ..	2
Lec 7	Quality of insurance products - the perspective of the client, insurance company and the environment.	2
Lec 8	Summary of the lecture.	2
	Total hours	15
Seminar		Number of hours
Sem 1	Introduction to seminars, discussion of organizational matters. Group division. Assigning seminar topics.	2
Sem 2	Social security in business management.	2
Sem 3	Analysis of general conditions of business insurance	2
Sem 4	The process of claims settlement from business insurance	2
Sem 5	Insurance market institutions.	2
Sem 6-8	Property insurance in the protection of the property potential of an enterprise. Case studies	6
Sem 9-11	Insurance of rights and obligations in the protection of the capital potential of an enterprise. Case studies	6
Sem 12-14	Personal insurance in the protection of the human potential of an enterprise. Case studies	6
Sem 15	Seminar summary.	2
	Total hours	30

TEACHING TOOLS USED

N1. Lecture, multimedia presentation.

N2. Group work ended with the presentation of a paper.

N3. Exercises / case studies.
 N4. Discussion.
 N5. Teaching materials published on the ePortal.

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	Written test
F1	PEU_W01 ÷ PEU_W03 PEU_K01, PEU_K02	Substantive and formal evaluation of the presentation (paper).
F2	PEU_U01 ÷ PEU_U03 PEU_K01, PEU_K02	Activity evaluation.
P (lecture) = 0,8*F1+0,2*F3 P (seminar) = 0,7*F2+0,3*F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] *Ubezpieczenia w zarządzaniu ryzykiem przedsiębiorstwa*, tom 1, Podstawy, B. Hadyniak, J. Monkiewicz (red.), Wydawnictwo Poltext, Warszawa 2010.
- [3] *Ubezpieczenia*, W. Ronka-Chmielowiec (red.), CH Beck, Warszawa 2016.
- [4] *Ubezpieczenia. Podręcznik akademicki*, J. Handschke, J. Monkiewicz (red.), Wydawnictwo Poltext, Warszawa 2010.

SECONDARY LITERATURE:

- [1] Insurance magazines: *Prawo Asekuracyjne, Wiadomości Ubezpieczeniowe*,
- [2] Website of the Financial Ombudsman: <https://rf.gov.pl/>
- [3] Website of the Polish Financial Supervision Authority: <https://www.knf.gov.pl/>
- [4] Website of the Polish Insurance Association: <https://piu.org.pl/>
- [4] Website of the Insurance Guarantee Fund: <https://www.ufg.pl/>

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Joanna Iwko PhD, Ing., joanna.iwko@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Uwarunkowania biznesu i rozwój organizacji****Name of subject in English: Business conditions and organization development****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0140****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 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)	0,6			1,2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Completed course of the basics of management.

SUBJECT OBJECTIVES

C1 Gaining knowledge and familiarizing students with the problems of initiating business operations
 C2 Acquisition of skills in the area of business planning as well as running and developing a business in accordance with applicable law.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 has structured knowledge in the field of creating and running a business in the aspect of creating new and innovative enterprises,

PEU_W02 characterizes and knows the basic tools, methods and techniques used in the process of planning, initiating, creating and developing an innovative business,

relating to skills:

PEU_U01 is able to properly prepare a business plan, knows the structure and structure of the document,
 PEU_U02 can, in practice, carry out cost calculation and perform analysis, planning, forecasting and cost optimization

PEU_U03 has the ability to see the interrelationships between the various elements of a business plan (organizational, strategic, marketing, financial and organizational)

relating to social competences:

PEU_K01 is aware of the importance of the SME sector in business practice,

PEU_K02 understands the need to constantly improve their own knowledge,

PEU_K03 is aware of the ethical obligations related to the role of the entrepreneur.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational issues - discussion of the terms and conditions of passing.	1
Lec 2	A business plan as the basis for obtaining sources of investment financing or obtaining funds for establishing an innovative business in the form of startup (what is a business plan, basic functions of a business plan, structure of a business plan, components of a business plan, basis for preparing financial documentation)	2
Lec 3	The procedure for setting up a business depending on the choice of the organizational and legal form (procedure for establishing a sole proprietorship, civil partnership, commercial partnerships, capital companies and by foreigners: certificate of residence).	2
Lec 4	Costs of setting up and running a business and relief for entrepreneurs	2
Lec 5	Entrepreneurs' obligations towards ZUS or KRUS in the context of agricultural economic activity	2
Lec 6	Entrepreneurs' obligations towards the Central Statistical Office (GUS): binding reporting forms and the procedure for filling them in; PRODPOL nomenclature - monthly annual statistics; classification of professions and specialties - used in statistical reporting on employment; applications for information systems for data transmission	2
Lec 7	Suspending and closing a business	2
Lec 8	Final test	2
Total hours		15

Project		Number of hours
Proj 1	Presentation of the assumptions for the workshops and a preliminary discussion of the importance of knowledge about creating a business plan; division into groups	2
Proj 2-3	Objectives of establishing an enterprise - creating innovative products and services based on a deep understanding of problems and needs of their users.	4
Proj 4	Personnel and resource management- creating development	2
Proj 5	Basic conditions of the phenomena - market and competition	2
Proj 6-7	Marketing strategy (marketing plan)	4
Proj 8	Conducting analysis and selection of financing source	2
Proj 9	Taking into account the business concept	2
Proj 10-11	Financial data problem lists - Financial plan	2
Proj 12-13	Project of a new business venture and preparation of individual elements of the business plan	4
Proj 14-15	Project defense. Completing the cours.	4
Total hours		30

TEACHING TOOLS USED

N1. Multimedia presentation
 N2. Group work
 N3. Presentation of the diagnostic work
 N4. Discussion of the effects during the presentation of the results of the student's 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_W02;	Final test
F2	PEU_U01; PEU_U02; PEU_U03	Participation in problem discussions
F3	PEU_U01; PEU_U02; PEU_U03	Preparation of diagnostic work in the form of a project
F4	PEU_U01; PEU_U02; PEU_U03; PEU_K0; PEU_K02; PEU_K03	Project defense
P (lecture) = F1 P (project) = 0,4*F2+0,5*F3+0,1*F4		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

[1] Parkitna A., Tutaj J., Urbańska K., (2018) i (2019)- z późniejszymi aktualizacjami, Jak założyć i prowadzić działalność gospodarczą, cz.1 i 2, http://um.swidnica.pl/media/PAULA%20STRONA/poradnik_dzialanosz_w_PL_pl.pdf
 [2] Żyro Z. „Jak założyć i prowadzić własną firmę (2022), Jak założyć i poprowadzić własną firmę, (2022), Wydawnictwo SIGMA, Skierniewice
 [3] Tokarski, A., Wójcik, M., Tokarski, M., (2017). Jak solidnie przygotować profesjonalny biznesplan (Wyd. 4. zm. i rozszerz. ed.). Warszawa: Wydawca CeDeWu., Warszawa

SECONDARY LITERATURE:

[1] [1] Sokół A., Mućko P., Jak założyć i prowadzić własną firmę. Praktyczny poradnik z przykładami, (2020), CeDeWu, Warszawa
 [2] Blajer M., Warska T., Księgowość małej firmy w praktyce. Księga przychodów i rozchodów, (2021), Wydawnictwo: Novae Res, Gdynia
 [3] Tokarski A., Tokarski M., Wójcik J., (2019): Biznes plan po polsku. CeDeWu, Warszawa

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Agnieszka Parkitna; agnieszka.parkitna@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zachowania Organizacyjne****Name of subject in English: Organizational Behavior****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level****Kind of subject: obligatory****Subject code: W08ZZZ-SL0122****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)	50	50			
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)	1,2	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Completed course in Organization and Management Field

SUBJECT OBJECTIVES

C1 Understanding the essence and correctness of organizational behavior

C2 Identification of organizational behavior determinants and assessment of their impact on the organization's functioning

C3 Management of organizational behaviors of contemporary organizations

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Knows the meaning and goals shaping organizational behavior

PEU_W02 Knows the conditions and their impact on organizational behavior, including in the context of inter-organizational relations and interactions of the organization with the environment in the context of national, international and intercultural conditions.

PEU_W03 Knows the models and mechanisms of their operation regarding the creation of organizational behaviors, including the principles of building and functioning of teams, the importance and impact of

organizational culture as well as the means and systems of communication in the organization
relating to skills:
PEU_U01 Is able to identify and analyze the key factors influencing organizational behavior and use typical techniques of influencing these behaviors.
PEU_U02 Is able to use sets of tools for shaping organizational behavior in practice.
relating to social competences:
PEU_K01 Is oriented on ethical and responsible attitudes in specific situation in the practice functioning of enterprise
PEU_K02 Is aware of the requirement to devote effort and time to assessing the situation and factors influencing organizational behavior, and is aware of the need to independently develop their knowledge and professional skills in the field of organization and management sciences. Can independently develop this knowledge and improve skills.
PEU_K03 Has a fair view of the relation between supervisor and subordinates

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational issues- discussion of the rules for organizing the lecture and the rules for passing. Genesis and essence of organizational behavior	2
Lec 2	Determinants of organizational behaviour. Definitions and interpretations.	2
Lec 3	Individual behavior on organization	2
Lec 4	Group behavior in organization	2
Lec 5	Inter –organizational behavior. Integration and competition	2
Lec 6	Basic relation of the organization with environment. Cooperation	2
Lec 7	Strategic reaction of the organization toward environment	2
Lec 8	Methods and techniques for shaping organizational behavior and attitudes	2
Lec 9	Leadership and styles of leading. Leader’s competence profile	2
Lec 10	Communication processes in organization. Communication tools	2
Lec 11	Negotiations. Methods and styles of negotiations	2
Lec 12	Organizational culture	2
Lec 13	Behavior ethics in organization	2
Lec 14	Proofing of student’s level of knowledge	2
Lec 15	Recapitulation and final assessment	2
	Total hours	30

Classes		Number of hours
Cl 1	Organizational issues- discussion of the rules for organizing the classes and the rules for passing. Leadership	2
Cl 2	Organizational behavior and leadership in international organization	2
Cl 3	Solidarity in organization. About cohesion of group and organization	2
Cl 4	Together or not. Individuality vs. group activities regarding the effectiveness, efficiency and coherence of the organization	2
Cl 5	The importance of organizational culture for shaping organizational behavior	2
Cl 6	Is there a global culture, i.e. about the interpenetration of cultures in the organization	2
Cl 7	Communication in organization	2
Cl 8	Motivation in organization	2
Cl 9	Decision making in organization	2
Cl 10	Conflicts in organization	2

Cl 11	Failures in shaping organizational behavior	2
Cl 12	Employee „difficult” in organization. Role of group and leader	2
Cl 13	Ethical standards in organization	2
Cl 14	Pathology in organization	2
Cl 15	Recapitulation and final assessment	2
	Total hours	30

TEACHING TOOLS USED	
N1. problem lecture with the use of a multimedia presentation N2. group work N3 own work (literature studies, essays) N4. case studies N5. 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
F1	PEU_W01; PEU_W02; PEU_W03	Final test
F2	PEU_W01, PEU_W02 ; PEU_W03, PEU_K01, PEU_K03	Activity measurement through class attendance
F3	PEU_W02, PEU_W03, PEU_U01, PEU_U02	Measurement by assessing the level of presentation preparation
F4	PEU_W01; PEU_W02; PEU_W03; PEU_K01, PEU_K03	Mesurement by assessing the preparation for discussion
F5	PEU_W02, PEU_K02	Messurement by evaluation own studies and group work
P(lecture)=F1 P(classes)=0,25*F2+0,25*F3 +0,25*F4 +0,25*F5		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Biesok G., Wyród-Wróbel J. (red.), Człowiek w organizacji, Wydawnictwo CeDeWu, 2021 [2] Gros U. ,Zachowania organizacyjne w teorii i praktyce, PWN, Warszawa, 2021 [3] Robbins S.P., Zachowania w organizacji, PWE Warszawa 2004 SECONDARY LITERATURE: [1] Bednarska-Wnuk I., Michalak J.M, Świątek-Barylska I., Zachowania organizacyjne. Organizacja jako przestrzeń kształtowania zachowań pracowników, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2015 [2] Kmiotek K., Piecuch T., Zachowania organizacyjne. Teoria i przykłady, Difin, Warszawa 2012 [3] Kołodziejczak M., Czajkowska M., Januszkiewicz K., Zachowania organizacyjne Relacje społeczne w przestrzeni zmian, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2015 [4] Penc J. Zachowania organizacyjne w przedsiębiorstwie, Wolters Kluwer, Warszawa 2011 [5] Szostek D., Kontrproduktywne zachowania organizacyjne w kontekście jakości relacji interpersonalnych w zespołach pracowniczych, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń 2019 SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) prof. dr hab. inż. Zbigniew Malara; zbigniew.malara@pwr.edu.pl dr Jagoda Mrzygłocka-Chojnacka; jagoda.mrzyglocka-chojnacka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie finansami****Name of subject in English: Financial Management****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level studies, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL0135****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)	75	50			
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)	1,2	0,6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of the elements of financial accounting.
2. Knowledge of the basics of financial reporting depending on the organizational and legal form of enterprises.
3. Umiejętność dokonywania prostych obliczeń matematycznych.

SUBJECT OBJECTIVES

C1 Knowledge of financial management at the operational level: the tasks of financial management in the enterprise and the role of the financial manager managing current assets, ensuring financial liquidity, testing profitability, cash cycle and shaping the company's financial policy towards suppliers and recipients.

C2 Knowledge of the sources of financing business activities and the mechanisms of their acquisition, including the determination of the cost of capita.

C3 Basic knowledge of the assessment of the effectiveness of economic ventures along with understanding the volatility of the value of money over time.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 He knows the sources of financing economic activity and the mechanisms of its acquisition, as well as the concept of capital budget and the cost of capital

PEU_W02 He knows the methods of assessing the effectiveness of investment projects.

PEU_W03 Has basic knowledge of financial management. Understands the mechanisms of current financial management - ensuring liquidity, shaping the cash cycle, analyzing business profitability.

relating to skills:

PEU_U01 The student will be able to evaluate the effectiveness of investment projects, including the construction of capital budgets and the valuation of capital costs, using the knowledge gained in class as well as expanding on Polish and foreign language sources of information, in particular professional materials.

PEU_U02 Can make decisions affecting the liquidity or profitability of the business, as well as the choice of sources of finance. Can justify his/her decisions, participate in discussions in this field and justify his/her opinions.

PEU_U03 He can convert the value of the cash stream in time, determine the value future and current cash flows

relating to social competences:

PEU_K01 Is aware of the changing value of money over time and its impact on making management decisions

PEU_K02 Understands the consequences of decisions made on the financial result of the organization and its ability to service liabilities on a current basis.

PEU_K03 Understands the role of the person responsible for financial management in a company and his/her interactions with others. Understands the responsibilities associated with different organizational roles.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction - organisational activities. The concept of financial management objective and value of an organisation. Financial management tasks and the role of the financial manager.	2
Lec 2	Introduction to modeling the time value of money. Models of the future and present value of money	2
Lec 3	Models of the value of future and present rent	2
Lec 4	Classification of funding sources for the organization's activities. Characteristics of the financial market as a place of obtaining financing	2
Lec 5	Cost and risk of financing with external and equity capital. Organization cost of capital valuation model. Credit and its cost.	2
Lec 6	Stock exchange as a place to raise capital. Dividend Share Valuation Models. Stock valuation models - models of constant profit growth	2
Lec 7	Bond market and their characteristics. Bond pricing models	2
Lec 8	The risk of using selected forms of financing and its measurement	2
Lec 9	Wprowadzenie do wyceny rynkowej ryzyka – model CML	2

Lec 10	Futures contracts - characteristics of derivatives.	2
Lec 11	Financial liquidity management. The cash cycle.	2
Lec 12	Shaping the financial result. Creative accounting.	2
Lec 13	Material investments in the enterprise	2
Lec 14	Introduction to estimating the financial efficiency of investments	2
Lec 15	Exam	2
	Total hours	30

Classes		Number of hours
Cl 1	Introduction - organisational activities. Calculating future and present value. Testing the "profitability" of deposits.	2
Cl 2	Calculation of the value of an annuity. Loan repayment by decreasing and annuity payment.	2
Cl 3	Determining the cost of the loan. Distinguishing between nominal, real and effective rates.	2
Cl 4	Calculation of the share price	2
Cl 5	Calculation of the bond price	2
Cl 6	Determining the cost of capital and assessing the effectiveness of investment projects	2
Cl 7	Analyzing the impact of the policy towards customers and suppliers in the context of liquidity and profitability	2
Cl 8	Pass a subject	1
	Total hours	15

TEACHING TOOLS USED
N1. Information and multimedia lecture N2. Computational exercises. N3. Problem tasks.

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_W02, PEU_W03, PEU_U01 PEU_U02	Exam P1 (lecture) = written exam
P2	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02 PEU_K03	Final test - Colloquium, activity during classes, attendance in classes P2 (exercise) = $0.6 * \text{colloquium} + 0.3 * \text{activity} + 0.1 * \text{attendance}$
F3	PEU_U01 PEU_U02 PEU_U03	activity

	PEU_K01 PEU_K02 PEU_K03	
F4	PEU_K04	attendance
P1 (wykład) = 0,1 F4 + 0,9 F1 P2 (ćwiczenia) = 0,6 * F2 + 0,3 * F3 + 0,1 * F4		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u> [1] BRIGHMAN E.F., Podstawy zarządzania finansami, PWN, Warszawa. [2] Czerwonka L. Zarządzanie finansami. Wprowadzenie, przykłady i zadania. [3] Bień W. Zarządzanie finansami. <u>SECONDARY LITERATURE:</u> [1] JAJUGA T., PLUTA W., Inwestycje. Capital Budgeting. [2] Rutkowski A. Zarządzanie finansami. [3] Pazio W. Zarządzanie finansami. [4] WILIMOWSKA Z., WILIMOWSKI M., Sztuka zarządzanie finansami. [5] Pluta W., Strategie inwestowania.	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl Arkadiusz Górski, arkadiusz.gorski@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie informacją w przedsiębiorstwie****Name of subject in English: Information management in the enterprise****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL0139****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 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)	0,6	1,2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of knowledge and information terminology

SUBJECT OBJECTIVES

C1 Providing knowledge on the role of information in the process of managing a company

C2 Overview of the essence of information management in an enterprise

C3 Presentation of the basic methods and functions of information management, i.e.: identification, diagnostic and decision-making, and specific functions, including: planning information needs and resources, and reviewing information strategies.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 knows and understands the essence of information and knowledge management in an organization; understands the concepts of data, information and knowledge and their nature.

PEU_W02 understands the meaning and value of information and knowledge for the development of contemporary enterprises; knows the basic tools, methods and techniques of information management in the enterprise.

relating to skills:

PEU_U01 is able to identify business potential resulting from information management.
PEU_U02 is able to point the types of information technologies and their significance in the company.
relating to social competences:
PEU_K01 is ready to analyze knowledge and information management processes, especially in legal and economic terms, including ethical issues.
PEU_K02 is aware of the importance of effective information management in the practice of the organization.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Discussion of the organization and completion of the lecture.	1
Lec 2	Characteristics of basic concepts (data, information, knowledge, wisdom, knowledge-based economy, information society, information management, enterprise information system).	2
Lec 3	Functions and areas of information management in the enterprise - general model of information management. Operational and strategic information management. Review of corporate information strategies. Standby strategy.	2
Lec 4	Methods of information management in an enterprise - quality and efficiency of information management systems. Review of selected domestic and foreign methods of information management.	2
Lec 5	The role of information management in the integration of enterprise activities.	2
Lec 6	Strategic information management in the organization.	2
Lec 7	Information management as an element of building the company's competitive advantage.	2
Lec 8	Final test.	2
	Total hours	15

Classes		Number of hours
Cl 1	Discussion of the organization and completion of the classes. Information needs and their determinants. Approaches in researching information needs.	2
Cl 2	Characteristics of selected methods of identifying information needs.	2
Cl 3	Sources and methods of collecting information - classification of information sources, internal and external sources of information	2
Cl 4	Characteristics of selected methods of collecting information	2
Cl 5	The Internet as a modern source of information.	2
Cl 6	Business virtualization.	2
Cl 7	Network-centricity of information processes. Telework.	2
Cl 8	The role of gamification in information management in modern enterprises.	2
Cl 9	Information-based business models.	2
Cl 10	Security of information resources. The essence and concept of information security.	2
Cl 11	Economic intelligence - obtaining and protecting information	2
Cl 12	The stages of implementing the concept of economic intelligence in enterprise. White intelligence (OSINT- Open Source Intelligence) as a form of legal economic intelligence	2
Cl 13	White intelligence (OSINT- Open Source Intelligence) as a form legal economic intelligence	2
Cl 14	Economic intelligence and economic espionage	2
Cl 15	Final test.	2
	Total hours	30

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation N2. Student presentations N3. Case studies N4. Activity N5. 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
F1	PEU_W01; PEU_W02	Final test (lecture)
F2	PEU_U01; PEU_U02; PEU_K01; PEU_K02	Assessment of activity and participation in the discussion
F3	PEU_W01; PEU_W02	Assessment of students' presentations
F4	PEU_W01; PEU_W02	Final test (classes)
P (lecture) = F1 P (classes) = 0,3*F2+ 0,3*F3+0,4*F4		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Zarządzanie informacją, red. nauk. W. Babik, Wyd. SBP Warszawa 2019 [2] Skelnik K., Miciuła I. Łubiński P., Zarządzanie bezpieczeństwem informacji Wyd. Nauka i Biznes Warszawa 2019 [3] Podstawy zarządzania informacją, red. J. Czekaj, Wyd. Uniwersytet Ekonomiczny Kraków 2012
<u>SECONDARY LITERATURE:</u> [1] Nowina-Konopka M., Infomorfoza. Zarządzanie informacją w nowych mediach, Wyd. Uj Krakow 2017 [2] Bielska A., Smółka P. (red.) Wywiad biznesowy: praktyczne wprowadzenie Wydawnictwo Nieoczywiste - imprint GAB Media, Piaseczno 2017 [3] Bruno Martinet, Yves-Michel Marti, Wywiad gospodarczy - Pozyskiwanie i ochrona informacji, Wydawnictwo: Polskie Wydawnictwo Ekonomiczne, Warszawa 1999 [4] Korzeniowski L., Peplowski A., Wywiad gospodarczy: historia i współczesność, European Association for Security, Kraków 2005
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) Aldona Dereń; aldona.deren@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie inteligentnym miastem (smart city)****Name of subject in English: Smart city management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level studies, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0154****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)	0,6			1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The ability to think critically and analyze the observed phenomena.
2. Ability to interpret the indicated phenomena from the point of view of a given problem.
3. Ability to work in a team.

SUBJECT OBJECTIVES

C1: getting to know the concept of a smart city

C2: learning and analysis of the features of a smart city that indicate that the city is "smart"

C3: learning about the ways of development of territorial units as a result of the implementation of advanced technologies as well as management methods and instruments allowing for greater social involvement in making decisions related to the functioning and development of cities.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W05_ The student distinguishes and characterizes the basic types, kinds and forms of cities. The student explains the key concepts of the theory of cities regarding their formation, functioning, transformation and development.

relating to skills:

PEU_U11_ The student is able to work in a team. The student is competent to communicate effectively and argue his position with other members of the group. The student knows how to prevent conflicts.

PEU_U15_ Student can independently use a variety of Polish and foreign-language sources of information, in particular professional literature. Is able to integrate the obtained information and use it to deepen specialist knowledge related to the field of social sciences, the discipline of management sciences.

relating to social competences:

PEU_K02_ The student takes responsibility for the quality and correctness of the tasks performed.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organizational issues.	1
Lec 2	Smart city - definition and characteristics of the concept	2
Lec 3	Typology of cities and various approaches to urban development management: smart city, green city, slow city).	2
Lec 4	Sustainable development of cities - building social capital	2
Lec 5	The role of stakeholders in the smart city management model	2
Lec 6	Sustainable urban mobility - an opportunity and a challenge for cities	2
Lec 7	Technologies in a smart city	2
Lec 8	Eco-innovations in cities	3
	Total hours	15
Project		Number of hours
Proj 1	Organizational issues. Sustainable Development (Smart) City Strategy (SDCS): Introduction	2
Proj 2	SDCS 1: definition of the key areas to which the planned development changes are to apply	2
Proj 3	SDCS 2: identification of stakeholders and their needs	2
Proj 4	SDCS 3: setting strategic and operational goals in the social, economic and spatial dimensions and their appropriate justification	2
Proj 5	SDCS 4: description of the directions of activities undertaken to achieve strategic goals	2
Proj 6	SDCS 5: determining actions to reduce the negative impact on the environment in accordance with the EU guidelines and the directions of national and regional strategies	2
Proj 7	SDCS 6: expected results of planned activities, including in the spatial dimension, and indicators of their achievement	2
Proj 8	SDCS 7: model of the functional and spatial structure of the city	2
Proj 9	SDCS 8: areas of strategic intervention specified in the voivodeship development strategy together with the scope of planned activities	2
Proj 10	SDCS 9: areas of strategic intervention of key importance for the city, if identified,	2

	together with the scope of planned activities	
Proj 11	SDCS 10: strategy implementation system	2
Proj 12	SDCS 11: promotional campaign supporting the strategy implementation system	2
Proj 13	SDCS 12: financial framework and sources of financing	2
Proj 14	Presentation and discussion of projects part I	2
Proj 15	Presentation and discussion of projects part II	2
	Total hours	30
TEACHING TOOLS USED		
N1 lecture, multimedia presentation		
N2 project - group work ended with the presentation of the results		

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_U11 PEU_U15 PEU_K02 PEU_W05	team project evaluation
F2	PEU_W05	Exam at the lecture
$P=0.6 \cdot F1 + 0.4 \cdot F2$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Brdulak A., Brdulak H. (Eds), Happy City – how to plan and create the best livable area for the people, Springer Nature, Switzerland, 2017.
- [2] Montgomery Ch., Miasto szczęśliwe. Jak zmienić nasze życie zmieniając nasze miasta., Wysoki Zamek, Kraków, 2015.
- [3] Szelągowska A., Bryx M. (Eds), Eco-innovations in cities, CeDeWu.pl, Szkoła Główna Handlowa w Warszawie, 2015.

SECONDARY LITERATURE:

- [4] Szołtysek J., Brdulak H., Kauf S., Miasta dla pieszych. Idea czy rzeczywistość., Texter, Warszawa 2016.
- [5] Strategie krajowe i regionalne PL
- [6] Wytyczne UE, np. Green Deal
- [7] Programy i projekty rządowe skierowane do miast, w tym m.in. Human Smart Cities, Urban Lab, Plany adaptacji do zmian klimatu w miastach, Plany zrównoważonej mobilności miejskiej (SUMP) w miastach, Kampania Europejski Tydzień Zrównoważonego Transportu (ETZT), Program Czyste Powietrze, Program Dostępność+
- [8] Jonek-Kowalska I., Kaźmierczak J., Inteligentny rozwój inteligentnych miast, CeDeWu, Warszawa 2020.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Brdulak, anna.brdulak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Zarządzanie jakością
Name of subject in English: Quality Management
Main field of study (if applicable): Management
Specialization (if applicable): Business Management
Profile: academic
Level and form of studies: 1st/, full-time /
Kind of subject: obligatory
Subject code: W08ZZZ-SL0022
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)	75			25	25
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)	1,2			0,6	0,6

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of issues of basic management.

SUBJECT OBJECTIVES

- C1 Acquiring basic knowledge of quality management systems.
 C2. Acquiring knowledge of basic methods and techniques of quality management.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Student has basic knowledge of quality management, implementation and maintenance of the quality management system and is familiar with basic quality management methods and techniques.

PEU_W02 Student explains the essence and importance of quality issues in management, knows the basic concepts, goals, regularities and problems of quality management. Identifies areas of improving the quality of resources, structures, processes, procedures and their conditions, and as a result - the quality of products and services. Understands the idea of standardization and certification in the organization.

relating to skills:

PEU_U01 Student is able to analyse quality management problems in various types of organisations and in its functional areas..

PEU_U02 Student is able to use the methods and techniques of quality management to solve problems of an organization and in its functional areas..

PEU_U03 Student can independently use a variety of Polish and foreign-language sources of information, in particular professional literature. Is able to integrate the obtained information and use it in order to deepen specialist knowledge related to the field of social sciences, the discipline of management sciences.

PEU_U04 Student understands listened and read texts on general and scientific topics related to the field of social sciences, the discipline of management sciences. Can express himself / herself (verbally and in writing), participate in discussions and present his opinions in an international professional environment - in a foreign language.

relating to social competences:

PEU_K01 Student is aware of the need to independently develop knowledge and professional skills in the field of organization and management sciences. Can independently develop this knowledge and improve skills.

PEU_K02 Student is prepared to initiate changes in the workplace and participate in their planning and implementation. Can think and act in an entrepreneurial manner.

PEU_K03 Student is responsible for assigned tasks.

PEU_K04 Student is able to work in a team.

PEU_K05 Student behaves ethically.

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Introduction to the lecture, discussion of organizational matters. Passing rules.	2
Lec 2	Introduction to the issues of quality management.	2
Lec 3	Quality cost concepts.	2
Lec 4-5	Principles of quality management.	4
Lec 6-7	Concepts of quality management (TQM, Kaizen/Lean).	4
Lec 8	Concepts of quality management and the concept of teal organizations.	2
Lec 9	Summary of lectures on the principles and concepts of quality management.	2
Lec 10	Quality management in projects.	2
Lec 11-12	Standardization of quality management systems. ISO 9000 series standards. ISO 9001:2015 requirements.	4
Lec 13	Integrated management systems.	2
Lec 14	Audit and certification of the quality management system. Models of Excellence.	2
Lec 15	Lecture summary on standardization and certification of management systems.	2
	Total hours	30
Project		Number of hours
Proj 1	Introduction to the classes, discussion of organizational matters. Discussing the scope of the project.	1
Proj 2	Discussion of selected quality management instruments.	2
Proj 3	Discussion of selected instruments of quality management-part 2-nd. Developing and consulting the first part of the project.	2

Proj 4	Developing and consulting the second part of the project.	2
Proj 5	Developing and consulting the third part of the project.	2
Proj 6	Developing and consulting the fourth part of the project.	2
Proj 7	Presentations of projects.	2
Proj 8	Presentation of the projects. Project assessment.	2
	Total hours	15
Seminar		Number of hours
Sem 1	Introduction to the seminar, discussion of organizational matters. Group division. Assigning seminar topics.	1
Sem 2	Quality costs as a tool for a process improvement.	2
Sem 3	The role of stakeholders, management and employees in implementing and maintaining the quality management system.	2
Sem 4	Six sigma and Lean Management concepts and TQM.	2
Sem 5	Characteristic of quality management in service organizations	2
Sem 6	Integrated quality, environment and safety management system.	2
Sem 7	The role of quality management system audits in quality assurance.	2
Sem 8	Seminar summary.	2
	Total hours	15
TEACHING TOOLS USED		
N1. Lecture, multimedia presentation. N2. Group work ended with the presentation of the project. N3. Exercises / case studies. N4. Discussion. N5. Group work ended with the presentation of a paper. N6. Teaching materials published on the ePortal.		

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_K05	The exam.
F2	PEU_W01, PEU_W02, PEU_U01 ÷ PEU_U04	Assessment of the project.
F3	PEU_K03 ÷ PEU_K05	Evaluation of the timely delivery of the project.
F4	PEU_W01, PEU_W02, PEU_U01 ÷ PEU_U04, PEU_K03 ÷ PEU_K05	Evaluation of the presentation of the project.
F5	PEU_W01, PEU_W02, PEU_K03, PEU_K04	Evaluation of content and formal of the presentation (paper).
F6	PEU_U01 ÷ PEU_U04, PEU_K01 ÷ PEU_K05	Assessment of the way of analyzing cases.
F7	PEU_U01 ÷ PEU_U04, PEU_K01 ÷ PEU_K05	Activity evaluation.
C = 0,9*F1+0,1*F7 (lecture) C = 0,8*F2+0,1*F3+0,1*F4 (project)		

$C=0,7 \cdot F5+0,3 \cdot F6+0,1 \cdot F7$ (seminar)

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Hamrol A., *Zarządzanie jakością z przykładami*, PWN, Warszawa 2013.
- [2] Bugdol M., *System zarządzania jakością według normy ISO 9001:2015*, Helion, Warszawa 2018.
- [3] Szczepańska K., *Zarządzanie jakością: koncepcje, metody, techniki, narzędzia*, OWPW, Warszawa 2015.

SECONDARY LITERATURE:

- [1] Dobrowolska A., *Podejście procesowe w organizacjach zarządzanych przez jakość*, Poltext, Warszawa 2017.
- [2] Hamrol A., *Strategie i praktyki sprawnego działania: lean, six sigma i inne*, Wydawnictwo Naukowe PWN, Warszawa 2016.
- [3] Imai M., *Kaizen: klucz do konkurencyjnego sukcesu Japonii*, Wydawnictwo MT Biznes, Warszawa 2007.
- [4] Wiśniewska M., Grudowski P., *Kultura jakości, doskonałości i bezpieczeństwa w organizacji*, CeDeWu, Warszawa 2019.
- [5] Zymonik Z., Hamrol A., Grudowski P., *Zarządzanie jakością i bezpieczeństwem*, PWE, Warszawa 2015.
- [6] Normy ISO serii 9000.
- [7] Kanał na YouTube „Jakość zarządzania” <https://www.youtube.com/c/wawakpl>
- [8] Blog „Jakość zarządzania” <https://wawak.pl/pl/category/zarzadzanie-jakoscia>
- [9] Strona www Międzynarodowej Organizacji Normalizacyjnej: www.iso.org
- [10] Strona www Polskiego Komitetu Normalizacyjnego: www.pkn.pl

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Joanna Iwko Joanna.iwko@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Zarządzanie kryzysowe**Name of subject in English:** Crisis management**Main field of study (if applicable):** Management**Specialization (if applicable):** Zarządzanie przedsiębiorstwem**Profile:** academic**Level and form of studies:** 1st full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL0163P**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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about the fundamentals of organization and management, fundamentals of marketing, financial accounting and finance management.

SUBJECT OBJECTIVES

C1 Shaping the ability to analyze the causes and dynamics of the crisis phenomena in the organization i.e.:

- a. ability to select research methods and tools used to identify crisis phenomena in the organization;
- b. ability to design and conduct simple research in the field of diagnosing crisis phenomena, formulating conclusions and presenting the obtained results.

C2 Shaping the ability to select a set of anti-crisis measures correlated with the diagnosed crisis phenomena and designing change management plans enabling the implementation of the proposed anti-crisis measures.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 Knows the basic methods, tools and techniques of crisis management.

relating to skills:

PEU_U01 Can apply or design basic methods, techniques and tools for diagnosing crisis phenomena in an organization, preventing them or overcoming them.

PEU_U02 Is able to independently use various sources of information, develop knowledge and improve his skills in the field of diagnosing and overcoming crisis phenomena in the organization. Can express himself (orally and in writing), participate in discussions and present own opinions.

PEU_U03 Can cooperate and work in team forms of work organization. He can properly set priorities in his own work and in cooperation with others.

relating to social competences:

PEU_K01 Is prepared to initiate changes in the organization and participate in their planning and implementation.

PEU_K02 Is prepared to communicate, persuade and defend own opinions in the name of achieving common goals.

PROGRAMME CONTENT

Project		Number of hours
Proj 1	Organizational classes: explaining the subject of the project, discussion of the project evaluation conditions, creating project teams.	2
Proj 2	Declaration of the design object. Consultation and realization of task 1: general characteristics of the organization and its environment, analysis of the financial situation and market position of the organization.	2
Proj 3	Consultation and realization of task 1: analysis and evaluation of the crises observed in the past in the organization and ways of overcoming them.	2
Proj 4	Consultation and realization of task 2: Presentation of the results of literature studies on the methods and techniques of diagnosing crisis phenomena in an organization. Selection / design of research (financial) methods and instruments enabling the diagnosis of crisis phenomena in the organization. Preparation of a description of the adopted research methodology.	2
Proj 5	Consultation and realization of task 2: Presentation of the results of literature studies on the methods and techniques of diagnosing crisis phenomena in an organization. Selection / design of research (non-financial) methods and instruments enabling the diagnosis of crisis phenomena in the organization. Preparation of a description of the adopted research methodology.	2
Proj 6	Consultation and realization of task 2: Presentation of the results of literature studies on the methods and techniques of diagnosing crisis phenomena in an organization. Selection / design of research (assessment of the risk of crisis in the organization) methods and instruments enabling the diagnosis of crisis phenomena in the organization. Preparation of a description of the adopted research methodology.	2
Proj 7	Consultation and realization of task 2: Presentation of the results of literature studies on the methods and techniques of diagnosing crisis phenomena in an organization. Selection / design of research (assessment of the organization's preparedness for the crisis) methods and instruments enabling the diagnosis of crisis phenomena in the organization. Preparation of a description of the adopted research methodology.	2
Proj 8	Consultation and realization of task 3: overview of the course of diagnostic tests; analysis and interpretation of research results: assessment of the depth of a crisis	2

	or the intensity of a crisis situation and guidelines for overcoming diagnosed crisis phenomena.	
Proj 9	Consultation and realization of task 3: overview of the course of diagnostic tests; analysis and interpretation of research result: crisis risk assessment in the organization and assessment of the organization's preparedness for the crisis; guidelines for shaping the organization's business continuity system in the context of diagnosed crisis phenomena.	2
Proj 10	Consultation and realization of task 4: proposals for a set of anti-crisis measures correlated with the diagnosed crisis phenomena.	2
Proj 11	Consultation and realization of task 4: shaping the organization's business continuity system.	2
Proj 12	Consultation and realization of task 5 developing change management plans in the organization and selecting management methods enabling the implementation of the proposed anti-crisis measures; estimating the costs and consequences of implementing the proposed changes, identifying potential difficulties in implementing the proposed solutions.	2
Proj 13	Overview of the presentation of the project. Submission of design works (in written form).	2
Proj 14-15	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. Summary of project. Final assessment.	4
	Total hours	30

TEACHING TOOLS USED

- N1. Discussion of selected issues.
N2. A written report - documenting the conclusions of the diagnosis and containing design proposals.
N3. Multimedia presentations prepared by students
N4. Student self-study

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_U03, PEU_K01-PEU_K02	Activity on the project. Participation in the discussion.
F2	PEU_W01, PEU_U01-PEU_U03, PEU_K01	Project of anti-crisis solutions in a chosen organization (written report).
F3	PEU_W01, PEU_U01-PEU_U03, PEU_K01-PEU_K02	Multimedia presentations relating to papers prepared by students.
$P=0,2 \cdot F1 + 0,6 \cdot F2 + 0,2 \cdot F3$		
PRIMARY AND SECONDARY LITERATURE		

PRIMARY LITERATURE:

- [1] Nogalski B., Macinkiewicz H. (2004), Zarządzanie antykryzysowe przedsiębiorstwem. Pokonać kryzys i wygrać, Difin, Warszawa.
- [2] Sienkiewicz-Małyjurek, K. (2015), Skuteczne zarządzanie kryzysowe. Wydanie poprawione, Difin, Warszawa.
- [3] Zelek A. (2003), Zarządzanie kryzysem w przedsiębiorstwie. Perspektywa strategiczna, Instytut Organizacji Zarządzania w Przemysle "ORGMASZ", Warszawa.

SECONDARY LITERATURE:

- [1] Krzakiewicz K. (2008), Zarządzanie kryzysowe, Poznań.
- [2] Tworzydło, D. (2019), Zarządzanie w kryzysie wizerunkowym. Metody, procedury, reagowanie, Difin, Warszawa.
- [3] Walas-Trębacz, J., Ziarko, J. (2011), Podstawy zarządzania kryzysowego, Cz. 2: Zarządzanie kryzysowe w przedsiębiorstwie, Krakowska Akademia im. Andrzeja Frycza Modrzewskiego, Kraków.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Anna Zabłocka-Kluczka, anna.zablocka-kluczka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish Zarządzanie marketingowe****Name in English Marketing Management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0125****Group of courses: YES**

	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		-		-
Form of crediting	crediting with grade		-		-
For group of courses mark (X) final course	X		-	-	-
Number of ECTS points	2		-		-
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)	1,8		-		-

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essentials of Management.
2. Essentials of Marketing.
3. Essentials of Economics.

SUBJECT OBJECTIVES**Passing fundamental knowledge (including application aspects) about:**

- C1. Marketing concept, different orientations towards marketing activities and the nature and basic problems of marketing management,
- C2. Marketing planning process, in particular in the scope of analysis and methods used in this process and the reasons for deciding on marketing: objectives, strategies, tactics, budget and operational activities.
- C3. The creation of organizational solutions, managing and control in the marketing area of business management.

To acquire fundamental skills to:

- C4. Analysis of the degree of the marketing concept implementation in some dimensions, and development of proposals relevant to marketing management,
- C5. Develop or make relevant changes in the project of analyzed marketing plan and to evaluate its correctness.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – knows and understands the marketing concept, different orientations towards marketing activities and the nature of marketing management.

PEU_W02 – knows the basics of customer relationships management strategies.

PEU_W03 – knows and understands, at a basic level, the marketing planning process, in particular, taking into account the specificity of Internet and social media.

PEU_W04 – has a basic knowledge of how to create organizational, managing and control in the in the marketing area of business management.

relating to skills:

PEU_U01 – can analyze, at a basic level, the degree of the marketing concept implementation in some aspects, and develop proposals relevant to marketing management.

PEU_U02 – can - at a basic level - develop marketing plan covering the selected scope of the company's activities or make adequate changes in the project of a marketing plan and evaluate its correctness, in the lights of the fundamental requirements addressed to marketing plans.

relating to social competences:

PEU_K01 - is aware of the need to develop knowledge and skills in management, in particular - in the scope of marketing planning and marketing approach to business management.

PEU_K02 – is aware that the contemporary business management manager job involves constant identifying, analyzing, prioritizing and solving management problems.

PEU_K03 - is prepared to take responsibility for the tasks assigned and co-workers, not only in essential but also in ethical dimension.

PEU_K04 – expresses a willingness to teamwork.

PEU_K05 - shows courage in communicating and defending own views, while taking into account and respecting the views of other people.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing management	1
Lec 2	Marketing concept in managing a company	2
Lec 3	Getting customer loyalty and satisfaction. Customer Relationships Management (CRM)	2
Lec 4	Marketing planning process	2
Lec 5	Strategic marketing activities on the Internet	2
Lec 6	Organizing, leading and control in the marketing area of managing a company	2
Lec 7	Final test	2
Lec 8	Marketing Management of a contemporary enterprise	2
	Total hours	15

Project		Number of hours
Proj1-Proj3	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing management.	6
Proj4-Proj6	Strategies and challenges in marketing management.	6
Proj7-Proj8	Marketing planning process.	4
Proj9-Proj11	Analysis and proposals of the adequate changes in the exemplary marketing plan.	6
Proj12-Proj13	Development and presentation of the marketing plan project – part one.	4
Proj14-Proj15	Development and presentation of the marketing plan project – part two.	4
	Total hours	30

TEACHING TOOLS USED
N1. Traditional lecture with multimedia presentations N2. Questions to students during lecture N3. Case studies N4. Questions to students during projects N5. Self or team analysis and evaluation of assigned aspects of enterprise marketing management N6. Self or teamwork: preparing for projects or tasks and preparation for the final test

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01 – W04 PEU_U01 – U02	Assessment of solutions to given tasks (short tests included) [project]
F2	PEU_W01 – W04 PEU_U01 – U02 PEU_K01 – K05	Activity and engagement during the semester [project]
F3	PEU_W01 PEU_W02 PEU_W03 PEU_W04	Assessment of the final test [lecture]
P1 [Lecture] = F3 P2 [Project] = 0,3*F2 + 0,7*F1 P=[P1+P2]/2, however if P1=2 [Unsatisfactory] or P2=2 [Unsatisfactory] then P=2 [Unsatisfactory].		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Dziekoński M., Kozielski R., Jak szybko napisać profesjonalny plan marketingowy, Wydawnictwo Nieoczywiste, Warszawa 2017. [2] Kotler Ph. Keller K.L., Marketing, Rebis, Poznań 2022 (wyd. 23 lub wyd. wcześniejsze do wyd.14, 2012 r. łącznie). [3] Nowak M.W., Ciurla M., Pozyskiwanie klientów w koncepcji CRM, [w:] M. Hopej, M. Moszkowicz, J. Skalik (red. nauk.) Wiedza w gospodarce i gospodarka oparta na wiedzy. Zarządzanie w gospodarce opartej na wiedzy, Prace Naukowe Uniwersytetu Ekonomicznego, nr 94, Wrocław 2010. SECONDARY LITERATURE: [1] Bakalarska-Stankiewicz J., Naucz się słuchać. Jak w praktyce wykorzystać <i>social listening</i>?, MIT Sloan Management Review Polska, Nr 10, 2021. [2] 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. [3] Mitręga M., Marketing relacji teoria i praktyka, wyd. 3, Warszawa, 2022 (lub wyd. wcześniejsze do r. 2005 łącznie). [4] Pikula R., Nasz raport: CRM i ERP - nowe wymiary transformacji cyfrowej, MIT Sloan Management Review Polska, 2021, Nr 10. [5] Reed J., Marketing internetowy. Szybkie łącze z klientami. Wszystko, co musisz wiedzieć, by wypromować swoją firmę w sieci, Helion, Gliwice 2012. [6] Sobieraj M., Co każdy CEO powinien dziś wiedzieć o marketingu?, ICAN Management Review, 2021, Nr 11. [7] Turner J., Shah R., Jak zarabiać w mediach społecznościowych. Rozwijaj firmę dzięki nowoczesnym narzędziom marketingowym. Wydanie II, Helion, Gliwice 2015. [8] Wieczorkowski J., Chomiak-Orsa I., Pawełoszek I., Big data w marketingu — narzędzie doskonalenia relacji z klientami, Marketing i Rynek, 2022, Nr 1, s. 3-9.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Milleniusz W. Nowak, Ph.D., Milleniusz.Nowak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie personelem****Name of subject in English: Personnel Management****Main field of study (if applicable): Management****Specialization: Business management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0136****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)	50			50	25
Form of crediting	Crediting with grade			Crediting with grade	Crediting with grade
For group of courses mark (X) final course					
Number of ECTS points	2			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)	1,2			1,2	0,6

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge in the scope of: basics of management, knowledge of organisation and organisational behaviours.

SUBJECT OBJECTIVES

C1: Providing students with information on objectives, instruments, principles and elements occurring in the personnel management process in the organisation and internal and external factors of the process.

C2: Allowing students to directly learn principles and instruments that are actually used in particular areas of personnel management in given organisations (case studies).

C3: Making students aware and convincing them of the necessity to create the human being as an object of management and the "most precious resource" of the organisation rather than an "ordinary production factor".

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01: Student possesses basic knowledge of human resources in the organisation and their strategic character. Student knows objectives, elements and factors conditioning the personnel management process and characterises their mutual relations.

PEU_W02: Student knows basic principles and instruments applied in the planning and selection of human resources, motivation, development, evaluation and remuneration of employees and understands the principles of their effective use.

PEU_W03: Student knows the essence and purposes of the competence management. Student recognises particular personnel management philosophies, strategies and policies, understands their importance and conditions of application, in particular with regard to the personnel marketing.

Relating to skills:

PEU_U01: Student is able to choose sources of information and use selected techniques for gaining information (interview, survey, documentation) for the purpose of solving typical diagnostic problems in selected areas of personnel management.

PEU_U02: Student is able to formulate a theoretical or practical problem in a selected area of personnel management and solve it using appropriate literature sources selected on the basis of library and Internet analysis.

PEU_U03: Student is able to prepare an expert appraisal in the form of a written report.

PEU_U04: Student is able to present the results of the diagnostic research and to defend the conclusions before a group of experts.

Relating to social competences:

PEU_K01: Student is aware and prepared to identify, analyse and settle employee problems occurring in the work place in relation with the performance of the personnel function.

PROGRAMME CONTENT

Lectures		Number of hours
Le.1	Organizational classes. The concept and essence of personnel function, goals of personnel management, conditions, meaning and the evolution of personnel function.	2
Le.2	Personnel Function in the context of the organisation management system. Task structure and the scope of personnel management process.	2
Le.3	Human Resources Planning. Goals, conditions and stages of planning. Personnel Audit. Realisation control – personnel controlling Restructuring of employment.	2
Le.4	Flexible models of the structure of employment. Forms of employment. Flexibility of employment supporting methods.	2
Le.5	Pos-related competency requirements. Principles and instruments of recruitment. Selection and its instruments. Introduction and dismissal of an employee. Evaluation of the effectiveness of selection.	2
Le.6	Aims and concepts of employee evaluation. Periodical Employee Evaluation System (SOOP). Criteria, methods and rules of the employee evaluation. Effectiveness of the SOOP.	2
Le.7	Remuneration Policy I. Aims and principles of wage differentiation. The basic wage system. Job evaluation - UMEWAP. Pay rates tables. Forms of basic wages.	2
Le.8	Remuneration Policy II. Bonuses, rewards and other components of remuneration	2
Le.9	Workforce potential. Influencing the employee development. Trainings; goals, types, evaluation of effectiveness.	2
Le.10	Test	2
Le.11	Competency model in personnel management I. The essence of competences and their types. Competence catalogs. Competency portfolios - construction principles	2

	Competency profiles - creation rules and graphic presentations.	
Le.12	Competency model in personnel management II. Methods of assessing employee competences. The use of competence profiles in personnel management - examples.	2
Le.13	Philosophy, policy and strategy of personnel function. Comparative analysis: Human Resources Management (HRM) and Personnel Management (PM)	2
Le.14	Essence, genesis and aims of Personal Marketing. Personal Marketing and Human Resource Management. HRM. Personal Marketing-mix . The loyalty of employees building. Communication inside organization	2
Le.15	Test	2
	Total hours	30

Seminar		Number of hours
Sem1	Organizational classes. Presentation of the purpose of the seminar and criteria for students' assessment. Discussing the individual tasks: 1. Literary studies (library and internet queries) regarding the implementation of the personnel function in the organization. - selection of the subject area of personnel management. 2. Presentation of the results of the query - formulation of a theoretical or practical research problem. 3. Presentation of the solution to the research problem in the selected thematic area of personnel management.	1
Sem2	Consulting the choice of the subject area and the way of conducting literature studies in the selected area. Answering students' questions. Setting the presentation schedule.	2
Sem3 Sem4	Presentation of library query results and formulation of a research problem. Indicator by the teacher - issues - problems requiring detailed literature analysis and orientation of the student on innovative instruments in a selected area of personnel management.	4
Sem5	"Rehearsal" - presentations of one or two teams will be detail reviewed by lecturer and students - will be discussed the advantages and disadvantages of the presentation. The teams that will take part in the rehearsal will be their "normal" presentations within the deadlines set in the schedule presentation.	2
Sem6,7	Presentation of the solution of research problem in the chosen area of personnel management - discussion and evaluation of the presentation.	4
Sem8	Presentation of the solution of research problem in the chosen area of personnel management - discussion and evaluation of the presentation. Discussion of the conclusions of the presentation - the indication of advantages and disadvantages. Summary schedule - to present the achievements of individual learning effects for each student.	2
	Total	15

Project		Number of hours
Pr 1	Organizational classes. Presentation of the purpose of project and criteria for the assessment of learning effects. Discussing the individual tasks of diagnostic work. Task 1: Identification of the research object and identification of the formal rules and instruments in the selected area of personnel management. Task 2: Carrying out a diagnosis of the actual state in a research object in a selected area of personnel management. Task 3: Proposing improvements resulting from the challenges facing the organization in the selected area of personnel management. Conducting an opinion	2

	survey of the indicated group of employees on the proposed changes. Task 4: Preparation of a report documenting the results of diagnostic researches. Task 5: Presentation of diagnostic test researches	
Pr 2	Consulting the selection of the subject area and the way of documenting diagnostic researches regarding the procedure (process flow) and personnel management instruments in the selected area. Discussion of the content of individual parts of the written report documenting the results of diagnostic work in selected thematic areas. Answering students' questions. Setting the presentation schedule.	2
Pr 3	Discussing and consulting the research tools planned to be used for the diagnosis of the selected thematic area.	2
Pr 4,5	Consultation of the tasks conducting by each diagnostic teams.	4
Pr 6,7	Consulting with the teacher, tasks 3-5 carried out by diagnostic teams.	4
Pr 8	"Rehearsal" - presentations of one or two teams will be detail reviewed by lecturer and students - will be discussed the advantages and disadvantages of the presentation. The teams that will take part in the rehearsal will be their "normal" presentations within the deadlines set in the schedule presentation.	2
Pr 9,10	Presentation of the results of researches - case studies - discussion and evaluation of the presentation.	4
Pr 11,12	Debate on the analysis of the possibility of implementing the proposed changes by individual teams. Analysis of the strengths and weaknesses of the proposed solutions, analysis of the existing risks in the context of knowledge about the organization and its environment.	4
Pr 13,14	Discussion on how to proceed during the process of implementing the proposed changes. Climate for changes.	4
Pr 15	Presentation of the results of researches - case studies - discussion and evaluation of the presentation. Discussion of the presentation results as a whole as well as the conclusions of the presentation of the results of diagnostic research. Develop a written report - an indication of advantages and disadvantages. Summary schedule - to present the achievements of individual learning effects for each student.	2
	Total	30

TEACHING TOOLS USED

- N1. Presentation of knowledge in a direct form (lecture) - audiovisual means.
N2. Lecture materials available in the electronic form at the website.
N3. Field research in the selected organisation - scenario interviews, documentation analysis, surveys.
N4. Short presentation (5 minutes) - audiovisual means (slides, computer projector).
N5. Work in diagnostic groups - consultations with the lecturer.
N6. Written report, edited according to a strictly defined template.
N7. Students' presentation of the final reports - audiovisual media.
N8. Discussion.
N9. Student's own work.

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
F1 - lecture	PEU_W01; PEU_W02;	Two written tests. Passing every effect: min 50% of points possible to obtain from questions assigned to a given effect.

F2 - lecture	PEU_W03	

The final evaluation of the lecture provided credits for all effects: $P = (F1+F2)$

Scale [%]: Failed <51 Satisfactory. 51 to 59 % Satisfactory + 60 to 67 %. Good 68 to 77 %
Good+ 78 to 88 % Very good >above 89 % Excellent = 100%

The final evaluation of the project: $P = F3+F4+F5$

	F3 Activity	F4 Presentation	F5 Report	Total	Required credits
PEU_U01	8	18	32	58	29
PEU_U03	6	12	10	28	15
PEU_K01	6		8	14	7
Total	20	30	50	100	51

Scale – like on the lecture

only if:

1. Number of attendance is > 7
2. For each competency student earned at least the required minimum number of points.

No condition 1 or 2 means the assessment Failed

The final evaluation of the seminar: $P = F6+F7+F8$

	F6 Activity	F7 Presentation 1	F8 Presentation 2	Total	Required credits
PEU_U02	5	15	40	60	31
PEU_U03	7	8	25	40	20
Total	12	23	65	100	51

Scale – like on the lecture

only if:

1. Number of attendance is > 7
2. For each competency student earned at least the required minimum number of points.

No condition 1 or 2 means the assessment Failed

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

Armstrong M., Zarządzanie zasobami ludzkimi, OE, Kraków 2002.

Filipowicz G., Zarządzanie kompetencjami zawodowymi, Warszawa, PWE, 2004.

Listwan T. (red.), Zarządzanie kadrami podstawy teoretyczne i ćwiczenia. Wyd. AE we Wrocławiu, Wrocław 2000.

SECONDARY LITERATURE:

Oleksyn T. Zarządzanie kompetencjami Teoria i praktyka. OE, Kraków 2006.

Pocztowski A., Zarządzanie zasobami ludzkimi: strategie – procesy – metody, Warszawa, PWE, 2003.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska; Agnieszka.Bienkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie potencjałem własnym****Name of subject in English: Management of own potential****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level , full-time studies****Kind of subject: elective****Subject code: W08ZZZ-SL0113S****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 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)					1,2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

C1. To acquaint students with the basic issues related to personal development and career planning;
 C2 To acquaint students with ways of building their own potential and skills that should be developed in specific work environments;
 C3. To acquaint students with the importance of a personal brand in achieving professional success.
 C4. Indication of the possibilities of using knowledge in the field of management in the process of achieving professional goals.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 has systematic knowledge of the factors of personal and professional development, personal brand, image

PEU_W02 knows the basic types of career paths as well as the methods and techniques supporting its

development and theories, methods and tools for motivating oneself and others to act
relating to skills:
PEU_U01 is able to carry out a self-diagnosis of strengths and weaknesses and make an assessment of his own development
PEU_U02 is able to formulate a strategy to achieve personal goals and develop a development plan
PEU_U03 is able to use various techniques of creativity to generate ideas for a solution problem
relating to social competences:
PEU_K01 is aware of the importance of relations with the group and the environment in the process of personal development and consciously and purposeful shapes them, behaving in a professional and ethical manner.
PEU_K02 is ready to prioritize and stimulate activity and creativity within own and team work

PROGRAM CONTENT		
Seminar		Number of hours
Sem 1	Discussion of the rules of the organization of work at the seminar and the rules of passing. Introduction - conditioning the process of managing oneself and one's own potential.	2
Sem 2	Contemporary labor market and managing oneself and one's own potential. Work styles and your own potential.	2
Sem 3	Identifying your own strengths and weaknesses. Self-motivation.	2
Sem 4	Values and goals. Formulating and implementing personal goals. Personal development strategies.	2
Sem 5	Individual personal development plan. Control and measurement of the effects of activities.	2
Sem 6	Models of career development and career paths.	2
Sem 7	The importance of coaching and mentoring as forms of supporting personal development.	2
Sem 8	The value of time. Time budget. Efficient use of time. Work-personal life balance.	2
Sem 9	Shaping professional competences. Decision making methods and attitude towards risk.	2
Sem 10	Creativity techniques, change management in the context of managing one's own potential.	2
Sem 11	Planning of professional development within the corporation.	2
Sem 12	Individual entrepreneurship as a career path.	2
Sem 13	Leadership. Sources of advantage over competitors. Influencing others.	2
Sem 14	Relational capital and its formation in the process of self-management. Activity in social media - goals and effects.	2
Sem 15	Building a personal brand. Shaping your own image.	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 number	Way of evaluating learning outcomes achievement

F1	PEU_W01,PEU_W02	Measurement of activity through attendance
F2	PEU_W01,PEU_W02, PEU_U03, PEU_K02	Presentation preparation measurement
F3	PEU_W01,PEU_W02 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= 0,25F1+0,25F2 +0,25F3 +0,25F4		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Schwartz T., Taka praca nie ma sensu czyli jak zarządzać swoją energią, Wydawnictwo MT Biznes, Warszawa 2020 [2] Rampersad Hubert K., TY – marka inna niż wszystkie. Sztuka autentycznego brandingu osobistego, Helion Gliwice 2010 [3] Yager J. Zdążyć z czasem na czas. Jak zarządzać własnym życiem w erze cyfrowej, Wydawnictwo Studio EMKA, Warszawa 2020	
<u>SECONDARY LITERATURE:</u>	
[1] (praca zbior.) Zarządzanie samym sobą, Harvard Business Review, Helion Gliwice 2006 [2] Buckingham M. Standout. Innowacyjny test do oceny silnych stron, Warszawa 2014. [3] Cialdini Robert B., Wywieranie wpływu na ludzi. Teoria i praktyka, GWP, Gdańsk 2020 [4] Lorek K., Władca czasu, czyli skuteczne zarządzanie własnym życiem, Wydawnictwo Sensus, Gliwice 2016	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr Jagoda Mrzygłocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl	

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie procesami****Name of subject in English: Business Process Management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0137****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)	75	25	25		
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 for direct teacher-student contact (BK) classes	1,2	0,6	0,6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

The knowledge of the basic management issues and quality management.

SUBJECT OBJECTIVES**Knowledge objectives:**

C1 Acquisition of knowledge on the essence of the process approach in management and basic models of process management.

C2 Acquisition of basic knowledge about process management instruments.

C3 Acquisition of the skills for practical application of design, analysis, evaluation and improvement tools.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Student knows the essence and basic models of the process management in organizations.

PEU_W02 Student knows basic tools for defining, analyzing, evaluating and improving business processes in an organization.

relating to skills:

PEU_U01 Student is able to practically apply tools for designing, analysing, assessing and

improving organization's processes. relating to social competences: PEU_K01 Student is responsible for assigned tasks. PEU_K02 Student acts ethically.		
PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Introduction to the lecture. Basic terms (e.g. business process, system)	2
Lec 2	Organisation as a system of processes. Types of organization processes.	2
Lec 3	Defining processes of an organization.	2
Lec 4	Review of visualization and process description methods.	2
Lec 5	Measurement and evaluation of processes in an organization.	2
Lec 6	Monitoring of processes. Statistical Process Control.	2
Lec 7	Techniques of Statistical Process Control.	2
Lec 8	Methods of risk assessment and process improvement. PFMEA method.	2
Lec 9	The concept and essentials of process management.	2
Lec 10	Review of process management models. Models of continuous process improvement.	2
Lec 11	Approaches to process improvement. Process benchmarking.	2
Lec 12	The Rummler-Brache model of increasing the performance of organization and processes.	2
Lec 13	The concept, essence and principles of Business Process Reengineering (BPR).	2
Lec 14	Strategies of process development in organizations. Outsourcing of processes.	2
Lec 15	Summary of the lecture.	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction to the class. Discussion of the conditions of passing.	1
Cl 2	Identification of business processes in a hypothetical organization.	2
Cl 3	Defining a process in a hypothetical organization.	2
Cl 4	Selection and application one of a process visualization method in a production/service organization.	2
Cl 5	Creating an assessment system for a hypothetical process.	2
Cl 6	Analysis of process control cards.	2
Cl 7	Calculation of process quality capability.	2
Cl 8	Passing test.	2
	Total hours	15
Laboratory		Number of hours
Lab1	Introduction to laboratory classes. Discussing laboratory tasks, credit conditions, work environment and safety rules in the computer lab.	1
Lab2	Task.1 Creating the mega map of organization processes.	2
Lab3	Task.2 Creating a micromap for a process.	2

Lab4	Task.3 Preparing a project of an improved process.	2
Lab5	Task.3 Preparing a project of an improved process - cont.	2
Lab6	Task.4 Preparing and analysis of control card results. Task.5 Calculating Cp and Cpk	2
Lab7	Task 6: PFMEA method.	2
Lab8	Credit of tasks	2
	Total hours.	15

TEACHING TOOLS USED

- N1. Traditional lecture using multimedia presentations and films.
 N2. Own work - independent literature studies and preparation for the exam.
 N3. Task lists to be performed individually or as a team during practice classes and in the computer lab.
 N4. Discussion of the effects of laboratory 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, PEK_W02, PEU_K02	Exam.
F2	PEU_U01	The credit agreement from the exercises.
F3	PEU_U01, PEU_K02	Evaluation of the tasks done during the classes.
F4	PEU_U01	Evaluation of the report on laboratory tasks.
F5	PEU_K01	Activity during classes
C (lecture) = F1 C (classes) = 0,5*F2+0,5*F3 C (laboratory) = 0,7*F3+0,2*F4+0,1*F5		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Materials published on the website of the course lecturer (ePportal).
- [2] Dobrowolska A., *Podejście procesowe w organizacjach zarządzanych przez jakość*, Poltext, Warszawa 2017.
- [3] Lasek M., B. Otmianowski, M. Pęczkowski, *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 2015.

SECONDARY LITERATURE:

- [1] Bitkowska A. (red.), *Zarządzanie procesami w przedsiębiorstwie: aspekty teoretyczno-praktyczne*, Difin, Warszawa 2011.
- [2] Bitkowska A. (red.), *Zarządzanie procesami biznesowymi w przedsiębiorstwie* Vizja Press & IT, Warszawa 2009.
- [3] Czekał J. (red.), *Zarządzanie procesami biznesowymi: aspekt metodyczny*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2009.
- [4] Czekał J. (red.), *Metody zarządzania procesami w świetle studiów i badań empirycznych*, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2009.
- [5] Grudowski P., *Projektowanie, nadzorowanie i doskonalenie systemu jakości według normy PN-EN ISO*

<i>9001:2009 w oparciu o podejście procesowe z uwzględnieniem specyfiki sektora MŚP. Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 2010.</i>	
[6]	Grajewski P. <i>Procesowe zarządzanie organizacją</i> , Polskie Wydawnictwo Ekonomiczne, Warszawa 2012.
[7]	Hammer M., <i>Reinżynieria i jej następstwa</i> . Wydawnictwo Naukowe PWN, Warszawa 1999.
[8]	Hammer M., Champy J., <i>Reengineering w przedsiębiorstwie</i> . Neumann Management Institute, Warszawa 1996.
[9]	Nowosielski S. (red.), <i>Podejście procesowe w organizacjach</i> , Wydawnictwo Uniwersytetu Ekonomicznego, Wrocław 2011.
[10]	Łazicki A. (red.), <i>Systemy zarządzania przedsiębiorstwem: techniki Lean Management i Kaizen</i> . Wiedza i Praktyka, Warszawa 2011.
[11]	Rummler G.A., Brache A.P., <i>Podnoszenie efektywności organizacji: Jak zarządzać „białymi plamami” w strukturze organizacyjnej?</i> Państwowe Wydawnictwo Ekonomiczne, Warszawa 2000.
[12]	Sałaciński T., <i>SPC statystyczne sterowanie procesami produkcji</i> , Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2016.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Anna Dobrowolska, Anna.Dobrowolska@pwr.edu.pl	

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie procesem innowacyjnym w przedsiębiorstwie****Name of subject in English: Managing the process of innovation in the enterprise****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0095P****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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

The objective of the course is to familiarize participants with the process of innovation implementation in a company. The participant will gain knowledge in the field of methods and tools supporting the process of innovation implementation at various stages of its realization. They will get to know methods of generating ideas and will be able to develop a plan for an innovative undertaking.

C1: To get acquainted with methods of innovation implementation.

C2. To improve skills of creative problem solving.

C3. To acquire skills of innovation management in an enterprise.

C4. Acquiring skills of decision-making in innovative activity organize, control the innovative activity of the enterprise and support innovative attitudes.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has a structured knowledge in the field of innovation implementation skills in enterprise

PEU_W02 Has knowledge of the methods and techniques of generating ideas and the use of tools in managing the innovation process

relating to skills:

PEU_U01 Be able to develop an innovation project plan

PEU_U02 Be able to implement innovative projects

relating to social competences:

PEU_K01 Is prepared to initiate changes in the organization and to participate in their planning and implementation

PROGRAM CONTENT			
Project			Number of hours
Proj 1	Discussion and consultation on the selection of topics (ideas) to be the subject of project work for the introduction of innovation in the enterprise. Determination and selection of methods for project development. Detailed description of the innovation. Selection and characteristics of the target group to which the innovation is addressed.		2
Proj 2-3	Consultation of substantive problems, assessment of the progress of students' work. Consulting how to prepare a project		4
Proj 4-5	Analysis and evaluation of the idea, developing a map of usefulness of the product for the customer, characteristics of competitors (if any), description of the industry, target market, developing a SWOT analysis of the innovative idea (e.g. product)		4
Proj 6-7	Development of a SWOT analysis of the innovative idea (e.g. product) and choice of competitive advantage/strategy, development of risk analysis of the innovative idea, part I		4
Proj 8-9	Development of a SWOT analysis of the innovative idea (e.g. product) and choice of competitive advantage/strategy, development of risk analysis of the innovative idea, part II		4
Proj 10-11	Presentation by students of the results of their project work (approx. 20 min) and discussion on the evaluation of the success of a marketable idea, opportunities and threats (barriers) in its potential implementation, part I		4
Proj 12-13	Presentation by students of the results of their project work (approx. 20 min) and discussion on the evaluation of the success of a marketable idea, opportunities and threats (barriers) in its potential implementation, part II		4
Proj 14	Presentation by students of the results of their project work (approx. 20 min) and discussion on the evaluation of the success of a marketable idea, opportunities and threats (barriers) in its potential implementation, part III		2
Proj 15	Summary of classes: discussion of conclusions from the evaluation of written reports and students' presentations. Selection of the best ideas.		2
	Total hours		30

TEACHING TOOLS USED

N1. Group work

N2. Case studies of innovative undertakings

N3. Discussion with the participants

N4. Presentation of the projects results

N5. Student's own work

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_U01; PEU_U02; PEU_K01	Project (Completeness of the project, substantive values), Presentation (substantive content, quality of slides, communication skills), group and individual work
P=F1		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] J.Antoszkiewicz, Innowacje w firmie. Praktyczne metody wprowadzania zmian. Poltext, Warszawa 2008 [2] J.Perenc (Red.), Innowacje W Rozwijaniu Konkurencyjności Firm Znaczenie, Wsparcie, Przykłady Zastosowa,Beck, Warszawa 2016 [3] T.Kraśńska, Innowacje W Zarządzaniu. Nowe Ujęcie, Beck, Warszawa 2018 <u>SECONDARY LITERATURE:</u> [1] Projekty innowacyjne, Poradnik dla projektodawców. Warszawa 2011, dokument elektroniczny, źródło: http://efs.lubuskie.pl/system/obj/2141_Projekty%20innowacyjne%20-%20poradnik%20dla%20projektodawc%C3%B3w%20PO%20KL.pdf
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Radosław Ryńca, radoslaw.rynca@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie produkcją i usługami****Name of subject in English: Production and services management****Main field of study: Management****Specialization: Business management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0018****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)	75	50	50		
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)	1,2	0,6	0,6		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge about: Microeconomics; Fundament Management; Fundamentals of financial accounting.

SUBJECT OBJECTIVES

C1 To learn about the essence and decision-making problems of production and service management and the area of strategic and operational decisions of the company.

C2 Understanding of the essence and principles of market-oriented and efficient operational management systems, including logistical aspects of material flows.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 Knows the most important concepts, objectives and strategies of operational activities and its links with other functional areas of the company.

PEU_W02 Has basic knowledge of the construction and operation of production systems in enterprises.

PEU_W03	Knows the essence and principles of operation of classic and modern logistic management systems for the operational activity of the enterprise.
<u>relating to skills:</u>	
PEU_U01	Able to identify and diagnose decision-making problems of companies in the operational area and logistic activity.
PEU_U02	Able to analyze and evaluate the functioning of the existing production and services management systems.
PEU_U03	Able to formulate alternative solutions for operational management.
<u>relating to social competences:</u>	
PEU_K01	Understands the role and importance of operational activity in the overall activity of the company
PEU_K02	Understands the role and importance of modern production and service management systems in increasing market and operational effectiveness of enterprises

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Discussing the objectives of the course and the conditions of passing The essence and objectives of production and service management. Production strategies	2
Lec 2	Product. The process. Production structure. Production environment	2
Lec 3	Sales and production planning for SOPs (aggregated)	2
Lec 4	Medium-term production planning	2
Lec 5	Short-term planning parameters and procedures	2
Lec 6	Inventory management	2
Lec 7	SCS stock control systems	2
Lec 8	Main MPS production planning (executive)	2
Lec 9	MRP Material Requirement Planning	2
Lec 10	Evolution and development of MRPII/ERP system	2
Lec 11	Production management in JiT/LP strategy – part 1	2
Lec 12	Production management in JiT/LP strategy – part 2	2
Lec 13	Production management in the TOC concept – part 1	2
Lec 14	Production management in the TOC concept – part 2	2
Lec 15	Trends in production and service management	2
	Total hours	15

Classes		Number of hours
Cl 1	Optimisation of the production programme in the absence of bottlenecks	3
Cl 2	Optimisation of the production programme in bottleneck conditions	2
Cl 3	Inventory management - SWZ system (EOQ models + ordering point)	2

Cl 4	Temporary production flow parameter - production cycle	2
Cl 5	Ways of shortening the production cycle (production runs)	2
Cl 6	Material Requirement Planning MRP - planning logic	2
Cl 7	Course completion	2
	Total hours	15

Laboratory		Number of hours
Lab 1	GOAL-OPT simulation game - production and sales flow control	3
Lab 2	GOAL-OPT simulation game - sales and production flow planning	2
Lab 3	Aggregate production planning - clean and mixed planning strategies	2
Lab 4	Aggregate production planning - shaping your own planning strategy	2
Lab 5	Inventory management - SWZ system (EOQ model + ordering point)	2
Lab 6	Inventory management - EOQ system (EOQ model variants)	2
Lab 7	Course completion	2
	Total hours	15

TEACHING TOOLS USED
N1. for the lecture: informative lecture, multimedia presentation N2. for exercises: accounting exercises, problematic exercises N3. for the laboratory: computer program in the field of simulation of the production process and aggregated production planning, preparation in report form

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_W02, PEU_W03, PEU_U03, PEU_K02	report on laboratory exercises
F2	PEU_W02, PEU_W03, PEU_K02	activity
F3	PEU_W02, PEU_U03, PEU_K02	quiz
F4	PEU_W01, PEU_W02, PEU_W03, PEU_U01, PEU_U02, PEU_U03, PEU_K01, PEU_K02	exam
P (lecture)= F4		

$$P(\text{laboratory}) = 0,8 \cdot F1 + 0,2 \cdot F2$$

$$P(\text{exercises}) = 0,8 \cdot F3 + 0,2 \cdot F2$$

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Zbroja T., Zarządzanie produkcją. Podręcznik, WSO WL, Wrocław 2015. [2] Pajak E., Zarządzanie produkcją. Produkt, technologia, organizacja, PWN, Warszawa 2021. [3] Kulińska E., Bogusławski A., Zarządzanie procesem produkcji, DIFIN, warszawa 2019 <u>SECONDARY LITERATURE:</u> [1] Nowoczesne zarządzanie produkcją, Ujęcie procesowe, PWN, Warszawa 2014 [2] Bozarth C.C., Handfield R.B., Wprowadzenie do zarządzania operacjami i łańcuchem dostaw: kompletny podręcznik logistyki i zarządzania dostawami, Helion, Gliwice 2007. [3] Heizer J., Render B., Operations Management, Pearson Education, Inc., Upper Saddle River, New Jersey 2006. [4] Zarządzanie produkcją w praktyce, Wydawnictwo „Wiedza i Praktyka”, Warszawa 2006. <u>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</u> Agnieszka Potocka, Agnieszka.potocka@pwr.edu.pl

FACULTY OF MANAGEMENT**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): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL0024****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)	75	25			
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 classes (P)		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,2	0,6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Fundamentals of management

SUBJECT OBJECTIVES

C1 To provide students with knowledge about project management in organisations, including the principles of project initiation, planning, execution, control and closure

C2 To provide students with knowledge of selected project management methods and tools

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Know the specifics of managing individual phases of project life cycle

PEU_W02 Know selected methods and tools for project management

relating to skills:

PEU_U01 Is able to solve problems with management of individual phases of project life cycle

PEU_U02 Is able to use the most important methods of project management

relating to social competences:

PEU_K01 Understands the essence of project management and its role in the modern world

PEU_K02 Is aware of the importance of professional organisations for the development of project management in the country and in the world		
PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Introduction to project management - basic concepts and definitions, classic vs. adaptive project management methodologies	2
Lec 2	Project initiation, stakeholders analysis	2
Lec 3	Project scope planning: scope definition, work breakdown structure (WBS), work package, responsibility assignment matrix (RAM)	2
Lec 4 Lec 5	Project activity planning: network planning methods, project schedule, critical path method (CPM)	4
Lec 6	Project resource planning, project cost planning	2
Lec 7 Lec 8	Project risk management	4
Lec 9 Lec 10	Methods for estimating project profitability (static methods, dynamic methods)	4
Lec 11	Human resources management in a project (leadership, selection of project team members)	2
Lec 12	Earned value method (EVM) in project control	2
Lec 13	Communication management in a project	2
Lec 14	Quality management in a project	2
Lec 15	Project closure	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction: division students into teams, defining by students their projects	2
Cl 2	Drafting of project charter	2
Cl 3	Stakeholder analysis	2
Cl 4	Preparation of WBS (work breakdown structure)	2
Cl 5	Application of CPM (critical path method)	2
Cl 6	Risk management plan	2
Cl 7	Project profitability estimation (two selected methods)	2
Cl 8	Test	1
	Total hours	15
TEACHING TOOLS USED		
N1 Multimedia presentation N2 Case studies N3 Group work completed with presentation of results N4 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_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01 PEU_K02	Activity
F2	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01 PEU_K02	Quality of teamwork
F3	PEU_W01 PEU_W02 PEU_U01 PEU_U02	Test
F4	PEU_W01 PEU_W02 PEU_U01 PEU_U02	Exam
P (wykład) = F4 P (ćwiczenia) = 0,1*F1+0,2*F2+0,7*F3		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Kerzner H., Zarządzanie projektami: studium przypadków, Helion, Gliwice 2005 [2] Spalek S., Zarządzanie projektami w przedsiębiorstwie. Perspektywa czwartej rewolucji przemysłowej, Polskie Wydawnictwo Ekonomiczne, Warszawa 2020 [3] Wysocki R. K., McGarry R., Efektywne zarządzanie projektami, Wyd. VII, Helion, 2018		
<u>SECONDARY LITERATURE:</u> [1] PMBOK Guide 6th Edition, Project Management Institute 2017 [2] Polskie Wytyczne Kompetencji IPMA (National Competence Baseline - NCB), wersja 4.0 [3] PRINCE2 - Skuteczne zarządzanie projektami, Axelos 2017 [4] Trocki M. (red.), Zarządzanie projektem europejskim, Polskie Wydawnictwo Ekonomiczne, Warszawa 2015 [5] Żmigrodzki M., Zarządzanie projektami dla początkujących. Jak zmienić wyzwanie w proste zadanie, Wyd. Helion, Warszawa 2018		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
dr hab. inż. Agata Klaus-Rosińska, prof. uczelni agata.klaus-rosinska@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie projektami informatycznymi****Name of subject in English: Software Project Management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0153****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)	0,6		1,2		

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The knowledge of the analysis and modeling of MIS user requirements methods.
2. The basics of the project management.

SUBJECT OBJECTIVES

C1. Get a knowledge of the criteria for alignment the IT project management system to the needs of the project environment.

C2. Get a knowledge of software sizing and effort estimation models and methods.

C3. Get the skills of computer-aided project management.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – gained a knowledge of the criteria for alignment the IT project management system to the needs of the project environment.

PEU_W02 – gained a knowledge of the software size and complexity measurement methods and rules, and the software effort estimation methods.

relating to skills:

PEU_U01 – be able to use computer tools to support the planning and control of the IT project.

PEU_U02 – be able to estimate the needed effort, calculate rates of a team productivity .

relating to social competences:

PEU_K01 – be able to collaborate and work in a project team.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organizational information, rules for passing the lecture. The Software Project Life Cycle Models.	1 1
Lec 2	Quality of the user software requirements specification. The system acceptance criteria. Assigning a priority of user/client requirements.	2
Lec 3	The size of the project. Functional and non-functional requirements metrics.	3
Lec 4	Cost estimation models and methods of the IT project. Rate of the team efficiency indicators.	2
Lec 5	Organizational structure of IT project management. Project management team roles. Assign roles and responsibilities for task, milestone, or decision on a project. Project definition components.	2
Lec 6	How to write a Business Case. Methods of evaluating the profitability of investment - IT project.	2
Lec 7	Basic rules of traditional and adaptive methods (Agile) - comparison of advantages and disadvantages.	1
Lec 8	Test	1
	Total hours	15
Laboratory		Number of hours
Lab 1	The organizational information, rules for passing the laboratory. The students teams determination.	1 1
Lab 2	The list of client needs in the selected area recognizing. The team projects topics acceptance.	2
Lab 3	The goal and scope of the software project definition. The business justification for IT project formulation.	2
Lab 4	The client/user software requirements identification. The criteria for completing a tasks definition. The quality of the software requirements analysis.	2
Lab 5	The software requirements prioritization. The IT project management system alignment to the needs of the project environment – the project management methodology and tools selection. The Milestone 1.	2
Lab 6	Information system model development.	2
Lab 7	The software size and reuse estimating. Project effort and cost estimating.	2
Lab 8	Develop a project work breakdown structure (WBS). Organization of the project resources – a project team. Division of responsibilities. The resources to the tasks assigning.	2
Lab 9	The general work schedule development.	2

Lab 10	The external versus internal dependencies consideration. The dependencies between the activities and the resource constraints analysis.	2
Lab 11	The detailed schedule of the project work development. The Milestone 2.	2
Lab 12	The work progress control – EVM or other method.	2
Lab 13	The schedule adjustment.	2
Lab 14	The team productivity/velocity index calculation. The Milestone 3.	2
Lab 15	Final assessment.	2
	Total hours	30

TEACHING TOOLS USED

- N1. Traditional lecture with multimedia presentations
N2. Lecture and seminar materials available in electronic form on the ePortal
N3. Discussion
N4. Team case analysis and solution design
N5. Students' presentation of the final report - audiovisual media (slides, computer projector)
N6. Software: supporting the construction of the computer system model – Ms Visio, project management – Ms Project
N7. Test with the open questions

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	Test
F2 F3 F4		Assessment of the task quality - at checkpoints 1 to 3
F5	PEU_U01 PEU_U02 PEU_K01	Assessment of student activity
P (lecture) = F1		
P (lab) = 0,7 * (F2+ F3+ F4)/3+0,3*F5		
PRIMARY AND SECONDARY LITERATURE		

LITERATURA PODSTAWOWA:

- [1] Cadle J, Yestes D., Zarządzanie procesem tworzenia systemów informacyjnych, WNT 2004
- [2] Cobb Ch., Zrozumieć Agile Project Management, APN Promise 2012
- [3] Pressman R.S., Praktyczne podejście do inżynierii oprogramowania, WNT 2004

LITERATURA UZUPEŁNIAJĄCA:

- [4] Cockburn A., Agile Software Development. Gra zespołowa, Helion 2008
- [5] Praca zbiorowa p.r. Górski J., Inżynieria oprogramowania, MIKOM 2000
- [6] Garmus D., Herron D., Function Point Analysis, Addison-Wesley 2001
- [7] Kompendium wiedzy o zarządzaniu projektami, PMBOK Guide, 2017 Edition – przekład, MT&DC 2017
- [8] Poppendieck M. T., Leading Lean Software Development, Addison-Wesley 2010
- [9] Schwaber K., Sprawne zarządzanie projektami metodą Scrum, Microsoft Press 2005

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Dr inż. Grażyna, Hołodnik-Janczura, grazyna.holodnik-janczura@pwr.edu.pl

Mgr inż. Maria, Galant-Pater, maria.galant-pater@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie zespołem pracowniczym****Name of subject in English: Team management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st , full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0152****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)	0,6				1,2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No requirements.

SUBJECT OBJECTIVES

- C1. To familiarise students with issues concerning the creation and management of work teams in an organisation.
 C2. To develop students' skills in the use of basic tools of managing teams of employees.
 C3. To introduce the issues concerning the creation and management of teams in organisations.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 has a systematic knowledge of group processes, knows chances and risks of teamwork and the rules of selection of team members

PEU_W02 has systematized knowledge about team leadership styles and the influence of leadership style on motivation and team work results

PEU_W03 has systematic knowledge of methods, techniques and tools for the development and assessment of competences of team members and team communication

relating to skills:

PEU_U01 is able to identify and use own and partners' resources in the course of collaborative projects

PEU_U02 can skilfully use techniques of communication formulation and accurately interpret messages from other people

PEU_U03 is able to create and restore good interpersonal relationships with colleagues and external individuals/groups

relating to social competences:

PEU_K01 is prepared to initiate changes in employee teams and participates in their planning and implementation.

PEU_K02 shows readiness to perform tasks and achieve team goals in a planned manner and in accordance with the rules of cooperation and enterprising.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organizational lecture - discussion of the principles of the organization of lecture and the conditions for passing.	1
Lec 2	Social processes in a team: separation, integration, identification, conformism, group thinking	2
Lec 3	Role and functions of a team leader (personality traits, competences, certification)	2
Lec 4	Team building process (selection, integration and improvement of team members)	2
Lec 5	Analysis of strengths and weaknesses of the work team. Organization of team work.	2
Lec 6	Communication and decision-making in a team.	2
Lec 7	Motivating and evaluating the team.	2
Lec 8	Individual and group methods of knowledge creation in enterprises. The role of teams in knowledge-based organisations. Organisational structure based on teamwork.	2
	Total hours	15

Seminar		Number of hours
Sem1	Organizational seminar - team definitions and types of teams	2
Sem 2	Teams in organisations: team versus group, advantages and disadvantages of teamwork. Types of teams.	2
Sem 3	Creating teams and rules of team functioning. Roles in a team	2
Sem 4	Formulating team goals and its environment	2
Sem 5	Creating work schedules and task division	2
Sem 6	Role, leader characteristics in a team and leader selection. The influence of leadership on creating an organisational culture	2
Sem 7	The role of the leader in shaping and implementing organisational change	2
Sem 8	Influence of norms and rules on teamwork effectiveness	2
Sem 9	Decision-making process in teamwork	2
Sem 10	Communication in a team. Conflict situations in a team	2
Sem 11	Information distribution system in a team with the use of IT tools.	2
Sem 12	The role of ethics in team leadership. Ethical argumentation - exercise and decision-making models - conducting a dialogue	2
Sem 13	Didactic game verifying team work skills	2
Sem 14	Learning game verifying the ability to work in a team	2
Sem 15	Summary	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	Measuring activity through class attendance
F2	PEU_W01, PEU_W02, PEU_U02, PEU_U03, PEU_K02	Measuring presentation preparation
F3	PEU_W01, PEU_W02, PEU_U02, PEU_U03, PEU_K02	Measuring preparation for a panel discussion
F4	PEU_U01, PEU_U02, PEU_K01	Measuring the value of own papers
P= 0,25F1+0,25F2 +0,25F3 +0,25F4		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Lopp M. (2019), Zarządzanie ludźmi w zespołach IT, Wydawnictwo Onepress, Gliwice [2] Zych A., Zych R. (2017), Szef w relacji z zespołem. Jak proces grupowy wpływa na psychologię teamu, Wydawnictwo Onepress, Gliwice [3] Żeromski M. (2020), Budowanie zespołu, Wydawnictwo Helion, Warszawa SECONDARY LITERATURE: [1] Kozusznik (2005). Kierowanie zespołem pracowniczym, Wydawnictwo PWE, Warszawa [2] Rutka R., Wróbel P. (red.), Organizacja zachowań zespołowych, Wydawnictwo PWE, Warszawa 2012. Rzepka B., Efektywna komunikacja w zespole, Wydawnictwo Edgard, Warszawa 2012 [3] Stefaniuk T. (2014). Komunikacja w zespole wirtualnym, Wydawnictwo Difin, Warszawa
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Dr Jagoda Mrzyglocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie zmianą i oporem****Name of subject in English: Change and Resistance Management****Main field of study (if applicable): Management****Specialization (if applicable): Business Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0149****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)	0,6			1,2	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. fundamentals of management
2. fundamentals of project management

SUBJECT OBJECTIVES

C1 To provide students with knowledge about selected methods and techniques of change and resistance to change management.

C2 To provide students with skills to practically use the discussed methods and techniques.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has knowledge about selected methods and techniques of change and resistance management

PEU_W02 Understands problems related to change management and resistance to change and has knowledge to propose solutions in real projects

relating to skills:

PEU_U01 Be able to apply selected methods and techniques of change and resistance management in real projects

PEU_U02 Be able to analyse real project cases to identify problems and opportunities for solutions relating to social competences: PEU_K01 Is aware of the importance of leadership, teamwork and can work in a team PEU_K02 Is able to cooperate in a team analysing real projects

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Introduction - discussion of the course, literature, pass conditions	1
Lec 2	Diagnosis of the state of organisation and readiness for change	2
Lec 3	Kotter's model of introducing changes	2
Lec 4	Planning a project of change in an organisation	2
Lec 5	Communication of change in organisation	2
Lec 6	Managing resistance to change	2
Lec 7	Building and developing a change team	2
Lec 8	Summary of course - test	2
	Total hours	15

Project		Number of hours
Cl 1	Introduction - discussion of the course, literature, pass conditions	2
Cl 2	Myers-Briggs test, Belbin test	2
Cl 3	Personality features and team work effectiveness - workshop	2
Cl 4	Workshop "Managing resistance" I	2
Cl 5	Workshop "Managing resistance" II	2
Cl 6	Workshop "Managing resistance" III	2
Cl 7	Kotter's change model	2
Cl 8	Choosing and justifying the change	2
Cl 9	Stakeholders for change - managing communication and resistance	2
Cl 10	Scheduling a change project	2
Cl 11	Budgeting a change project	2
Cl 12	Risk analysis in a change project	2
Cl 13	Ways of consolidating change	2
Cl 14	Developing an overall plan for a change project	2
Cl 15	Classes summary - feedback	2
	Total hours	30

TEACHING TOOLS USED
N1. Multimedia presentation N2. Case studies analysis N3. Students' elaboration of solution proposals for case studies N4. Presentation of results N5. 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_W01, PEU_W02	Test
F2	PEU_U01, PEU_U02, PEU_K01, PEU_K02	Presentation of teamwork results
F3	PEU_U01, PEU_U02, PEU_K01, PEU_K02	Activity
P1 (lecture) = F1 P2 (project) = 0.7*F2 + 0.3*F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Kotter J. P., Leading Change: An Action Plan from The World's Foremost Expert on Business Leadership, Harvard Business Review Press, USA 2012.
- [2] Roth G., Kurtyka M., Zarządzanie zmianą. Od strategii do działania, CeDeWu, Warszawa 2019.
- [3] Darnall R., Najwspanialszy projekt świata. Zespół projektowy na drodze do jakości, Difin, Warszawa 2002.

SECONDARY LITERATURE:

- [1] Gray C. F., Larson E. W., Desai G. V., Project Management, MCGraw Hill, USA 2013.
- [2] Puczyński P., Zarządzanie zmianą, czyli jak przeżyć nieustającą przeprowadzkę, Helion, Gliwice 2018.
- [3] Project Management Institute, A Guide to the Project Management Body Knowledge (PMBOK®Guide) 6th Edition, 2017

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr inż. Ewa MARCHWICKA, ewa.marchwicka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zastosowanie psychologii w zarządzaniu****Name of subject in English: Application psychology in management****Main field of study (if applicable): Management****Specialization (if applicable): Business management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: optional****Subject code: W08ZZZ-SL0164P****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)				125	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				5	
including number of ECTS points for practical classes (P)				5	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				1,2	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of psychology

SUBJECT OBJECTIVES

C1. Acquisition by the student of basic knowledge on the phenomenon of conflict, its psychological, social and organizational foundations.

C2. Achieving an improvement in behavior in a conflict situation and acquiring the ability to consciously define and implement strategies in this area.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student knows the basic methods, techniques and tools for solving managerial problems.

relating to skills:

PEU_U01 Student can independently use a variety of Polish and foreign-language sources of information and data sources, in particular professional literature.

PEU_U02 Student understands listened and read texts on general and scientific topics related to the field of social sciences, the discipline of management sciences.

relating to social competences:

PEU_K01 Student is prepared to initiate changes in the workplace and participate in their

planning and implementation. Can think and act analytically.		
PROGRAMME CONTENT		
Form of classes - project		Number of hours
Proj 1	The organization of classes, the division into teams, the initial discussion of psychology and management issues	2
Proj 2	Discussion of the methodological basis for the projects, determining the problems and research questions in teams	2
Proj 3	Discussion of the selected topics literature	2
Proj 4	Discussion of the principles of research tools (questionnaires) constructing	2
Proj 5	The work on questionnaire - preliminary version of the tool measuring	2
Proj 6	The work on questionnaire – continuation	2
Proj 7	The work on questionnaire – the final version of the tool measuring	2
Proj 8	Discussion of key statistical analysis necessary for empirical data analysis	2
Proj 9	The work on the report - preparation of the database for analysis	2
Proj 10	The work on the report - preparation of the database for analysis - continuation	2
Proj 11-12	Work on the report - the results analysis - the basic statistical analysis	4
Proj 13	Work on the report - the results analysis - formulation of conclusions from research	2
Proj 14-15	Presentations of projects	4
	Total hours	30
TEACHING TOOLS USED		
N1. Discussion N2. work in groups N3. Literature analysis N4. Case studies N5. 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
F1	PEU_W01 PEU_U01-U02 PEU_K01	Activity during classes
F2	EU_W01 PEU_U01-U02 PEU_K01	Reports and analysis prepared in teams
P = 0.3 F1 + 0.7 F2		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> 1. Rożnowski, B., Fortuna, P. (2020). <i>Psychologia biznesu</i>. Warszawa: Wydawnictwo Naukowe PWN 2. Zawadzka, A. M. (red.) (2019). <i>Psychologia zarządzania w organizacji</i>. Warszawa: PWN <u>SECONDARY LITERATURE:</u> 1. Lisiński, M., Szarucki, M., (2021) <i>Metody badawcze w naukach o zarządzaniu i jakości</i>. Warszawa PWE.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Dr Anna Borkowska, anna.borkowska@pwr.edu.pl

SPECJALNOŚĆ/SPECIALTY:

**Organizational
management**

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Praca licencjacka
Name of subject in English: Bachelor thesis
Main field of study (if applicable): Management
Specialization (if applicable): Organizational Management
Profile: academic
Level and form of studies: 1st full-time
Kind of subject: obligatory
Subject code: W08ZZZ-SL8093D
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)				400	
Form of crediting				crediting with grade	
For group of courses mark (X) final course					
Number of ECTS points				16	
including number of ECTS points for practical classes (P)				16	
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)				8	

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Cross-sectional knowledge of the issues from the study.

SUBJECT OBJECTIVES

C1 Synthesis of the knowledge from the 1st degree studies and practical skills.
 C2 Well-established skills of the scientific and technical information acquisition and application.
 C3 Achieving efficiency at the professional level in the search for solutions to managerial problems.
 C4 Preparing the dissertation basing on the knowledge from the study, information from the literature, analytical and practical work or the results of research.

SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU_U01 Is able to correctly identify a managerial problem and solve it with the use of appropriately selected methods, techniques and tools.

PEU_U02 Has the ability to collect and analyze information from various sources in the field of management and the use of methods, techniques and tools.

PEU_U03 Is able to develop a professional work - a text that accurately presents the results of work.

Project		Number of hours
Pr1	Analysis of the organization that is the subject of the work. Problem identification and analysis, preparation of the project assumptions.	4
Pr2	In-depth literature that concerns the issues addressed in the bachelor thesis, including methods, techniques and tools used to solve problems for the given class.	4
Pr3	Realisation of the project.	12
Pr4	Analysis of the possibility and desirability of proposed solutions application, its schedule, expected results and economics.	2
Pr5	Determination the steps of the future work concerning the issues that fall within the scope of the thesis.	2
Pr6	Edition of the dissertation.	6
	Total hours	30
TEACHING TOOLS USED		
N1.	Review of the literature.	
N2.	Interviews with the members of the organisation that is a subject of the work.	
N3.	Own work (both analytical and creative).	
N4.	Individual tutorial.	

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	Ongoing assessment of the systematic work and partial results.
F2	PEU_U01 PEU_U02 PEU_U03	Final evaluation of the work (dissertation).
$P = 0,5 \cdot F1 + 0,5 \cdot F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Literature concerning the issues of the thesis – own choice and recommended by the thesis supervisor. <u>SECONDARY LITERATURE:</u> [1] Booth, W.C., Colomb, G.G., Williams, J.M., Bizup J. & Fitzgerald W.T. (2016). The Craft of Research: Fourth Edition, University of Chicago Pr. ISBN-13: 978-0226239736 [2] Evans, D., Gruba, P., Zobel, J. (2014). How to Write a Better Thesis, Springer. ISBN-13: 978-3319042855 [3] Joyner, R.L., Rouse, W.A. & Glatthorn A.A. (2018). Writing the Winning Thesis or Dissertation: A Step-By-Step Guide, Corwin PR Inc. ISBN-13: 978-1544317205 [4] Kornuta, H. (2019). Concise Guide to Writing a Thesis or Dissertation: Educational Research and Beyond, Routledge. ISBN-13: 978-0367174583

[5] Lunenburg, F.C., Irby B.J (2008). Writing a Successful Thesis or Dissertation: Tips and Strategies for Students in the Social and Behavioral Sciences, Corwin Press,
<https://dx.doi.org/10.4135/9781483329659>

[6] Schimel, J. (2012). Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded, Oxford University Press. ISBN-13: 978-0199760244

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Przedsiębiorstwo na rynku UE****Name of subject in English: Business on the EU market****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8079****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)	25	25			
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)	0.6	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Knowledge and understanding of the essence of the conditions of the operation of economic entities on the EU market, resulting from the logic and mechanisms of integration and legal regulations determining the operation of the single European market.

C2. Showing the impact of elements of the legal and economic environment, resulting from integration processes, on the operation of enterprises and their strategic choices.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 Knows and understands the basic concepts and principles of legal and economic conditions for starting a business on the EU market.

PEU_W02 Knows and understands the basic concepts and principles of intellectual property protection under the conditions defined by EU regulations. Has knowledge of the legal conditions for the functioning of the organization.

PEU_W03 Characterizes the essence and forms of entrepreneurship and identifies the premises for its formation and development, in accordance with the regulations adopted in the EU.

relating to skills:

PEU_U01 Is able to apply the basic methods, techniques and tools to identify the conditions and context of the

company's operation in the conditions defined by the economic integration mechanism and regulations adopted in the EU

PEU_U02 Is able to use normative systems and applies appropriate norms and legal standards indicated to him **relating to social competences:**

PEU_K01 Is aware of the need to independently develop their knowledge and professional skills and is able to independently develop this knowledge and improve skills.

PEU_K02 Is prepared to identify and analyze social problems in the workplace and to search for their solutions to them.

PEU_K03 Is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Organizational issues - discussing the rules of organizing the lecture and the conditions for passing.	1
Lec 2	General characteristics of the European market and the principles of its functioning.	2
Lec 3	Legal and organizational conditions for the operation of enterprises on the European market.	2
Lec 4	Economic conditions for the functioning of enterprises in the conditions of European integration and the requirements of innovation	2
Lec 5	Implementation of the Single European Market (SEM) program as an element of the business environment for the operation of economic entities. Institutional and financial instruments for supporting economic activity (including innovative) on the EU market	2
Lec 6	The impact of selected EU sectoral policies on the operation of enterprises in the common market (policies supporting SGE and protective policies)	2
Lec 7	National and pan-European organizational and legal forms of running a business on the EU market. Regulations and competition policy towards enterprises in the EU	2
Lec 8	Protection of intellectual property in the EU	2
	Total hours	15

Classes		Number of hours
Cl 1	Organizational classes - discussion of the principles of organizing classes and the conditions for passing	1
Cl 2	Strategic analysis of the external environment of enterprises on the EU market	2
Cl 3	Adaptation processes of enterprises to the mechanisms and regulations of the European internal market	2
Cl 4	Choice of institutional and financial forms to support the company's operations on the EU market (using practical examples)	2
Cl 5	Determining the organizational and legal form of running a business on the European market	2
Cl 6	The influence of competition policy on the operation of enterprises on the EU market	2
Cl 7	Innovation and entrepreneurship in the context of applicable legal regulations and economic conditions	2
Cl 8	Application of European patent and trademark regulations (on selected examples)	2
	Total hours	15

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation N2. Group work N3. Own 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_W01; PEU_W02; PEU_W03	Final test evaluation
F2	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of group work
F3	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of own work
P (lecture) = F1 P (classes)= 0,5*F2+0,5*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] N. Moussis, Access to European Union: Law, Economics, Policies, 2009 [2] R.Baldwin, The Economics of European Integration, McGraw Hill Higher Education, 2009. [3] D.M.W.N. Hitchens, M. Trainor, J. Clausen, S. Thankappan, B. De Marchi, Small and Medium Sized Companies in Europe: Environmental Performance, Competitiveness and Management: International EU Case Studies, Springer-Verlag Berlin and Heidelberg GmbH & Co. K, 2003.
<u>SECONDARY LITERATURE:</u> [1] D. Peppers, M. Rogers, Managing Customer Relationships. A Strategic Framework, John Wiley&Sons, Inc. 2004. [2] G.L. Mazzi, G.i Savio (Eds.), Growth and Cycle in the Euro-zone, Palgrave Macmillan, 2006
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS) Aldona Dereń, aldona.dereń@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Zarządzanie procesami**Name of subject in English:** Business Process Management**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management (OM)**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8089**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)	25		25		
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)	0,6		0,6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of theory of management and quality management.

SUBJECT OBJECTIVES

C1 Acquisition of knowledge of the nature of a process approach to organization management.

C2 Acquisition of basic knowledge of the process management models in the organization and implementation of the process approach in the management of organizations.

C3 Acquisition of basic knowledge of processes management tools.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Knows the essence and basic models of the processes management in organizations.

PEU_W02 Knows the basic methods of design, analysis, modeling and evaluation of business processes.

relating to skills:

PEU_U01 Student is able to practically apply basic tools for designing, analysing, assessing and improving organization's processes.

relating to social competences:

PEU_K01 Student is responsible for assigned tasks.

PEU_K02 Student acts ethically.

PROGRAMME CONTENT		
Form of classes - lecture		Number of ours
Lec 1	Introduction to the lecture. Definition of a business process of the organization.	1
Lec 2	The idea of the process approach in the management of organizations. The differences between the functional-oriented and process-oriented organization.	2
Lec 3	Organization as a system of processes. Types of business processes. Identification of business processes in production and service organizations.	2
Lec 4	Defining a business process - principles and methods.	2
Lec 5	Techniques of design the process structure. Graphic techniques of a process description.	2
Lec 6	Measurement and evaluation of processes. Reasons for process measurement. A selection of process evaluation metrics. Methods for monitoring processes.	2
Lec 7	Business Process Reengineering (BPR) as a concept of improvement of processes.	2
Lec 8	Passing test	2
	Total hours	15
Laboratory		Number of hours
Lab1	Introduction to laboratory classes. Discussing laboratory tasks, credit conditions, work environment and safety rules in the computer lab.	1
Lab2	Task1 Creating the megamap of organization processes.	2
Lab3	Task2 Creating a micromap for a process.	2
Lab4	Task3. Preparing a process card.	2
Lab5	Task4 Preparing a project of an improved process.	2
Lab6	Task4 Preparing a project of an improved process - cont.	2
Lab7	Task5. Measurement and evaluation of processes.	2
Lab8	Credit of tasks	2
	Total hours.	15
TEACHING TOOLS USED		
N1. Traditional lecture using multimedia presentations and films.		
N2. Own work - independent literature studies and preparation for the final test.		
N3. Task lists to be performed individually or as a team in the computer lab.		
N4. Discussion of the effects of laboratory 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_W01, PEU_W02, PEU_K02	Test
F2	PEU_U01, PEU_K01, PEU_K02	Evaluation of the tasks done during the laboratory classes.
F3	PEU_W01, PEU_W02	Activity during lecture and laboratory
F4	PEU_W02	Evaluation of the readiness to perform tasks
$P(\text{lecture}) = 0,8 \cdot F1 + 0,2 \cdot F3$ $P(\text{laboratory}) = 0,7 \cdot F2 + 0,1 \cdot F3 + 0,2 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u>
[1] The materials published on the course website (Eportal). [2] Jeston J., <i>Business Process Management: Practical Guidelines to Successful Implementations</i>, Routledge; 5th edition (24.05.2022) [3] Slack N., Brandon-Jones A., <i>Operations and Process Management</i>, Pearson; 6th edition (21 April 2021).
<u>SECONDARY LITERATURE:</u>
[1] Armistead C., Rowland P., <i>Managing business processes: BPR and beyond</i>, John Wiley and Sons, Chichester 1996. [2] Becker J., Kugeler M., Rosemann M., <i>Process management: a guide for the design of business processes</i>. Springer-Verlag, Berlin Heidelberg 2003. [3] Burton T. T., Boeder S.M., <i>The lean extended enterprise: moving beyond the four walls to value stream excellence</i>, Boca Raton: J. Ross Publishing: APICS, 2003. [4] Damelio R., <i>The Basics of Process Mapping</i>, (2nd Edition) Francis&Taylor, USA, 2011. [5] Hammer M., Hershman L., <i>Faster Cheaper Better: The 9 Levers for Transforming How Work Gets Done</i>. Crown Business, 2010. [6] Harmon P., <i>Business Process Change. A business process management guide for managers and process professionals</i>, Elsevier, 2019. [7] Harrington, H.J. (et al.), <i>Business process improvement workbook : documentation, analysis, design, and management of business process improvement</i>. McGraw-Hill, 2012. [8] Page S., <i>Power of Business Process Improvement - 10 Simple Steps to Increase Effectiveness, Efficiency, and Adaptability</i>, AMACOM – Book Division of American Management Association, 2010. [9] Rummler G.A., Brache A.P., <i>Improving performance. How to manage the white Space on the Organization Chart</i>. Jossey-Bass Inc.,Publisher 1995. [10] Smith H., Fingar P., <i>Business Process Management: The Third Wave</i>, Off-press November 2002, Meghan-Kiffer Pres. [11] Selected articles from: „<i>Business Process Management Journal</i>”, „<i>The TQM Magazine</i>”, „<i>The Total Quality Management and Excellence</i>”, „<i>The International Journal of Quality and Reliability Management</i>”, „<i>The International Journal of Operational & Production Management</i>”.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Dr inż. Anna Dobrowolska, anna.dobrowolska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Prawo cywilne i handlowe****Name of subject in English: Civil and commercial law****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8060****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)	50	25			
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)	1.2	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Acquainting with the importance of civil and commercial law in economic activity

C2. Explanation of the basic concepts of civil science and commercial law

C3 Clarification of specific concepts in the field of property law and commercial company law

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows and understands the basic legal provisions regulating the creation and functioning of economic organizations. He knows and understands the basic concepts and principles of industrial property and copyright protection. Has knowledge of the legal conditions for the functioning of the organization.

relating to skills:

PEU_U01 Is able to use normative systems and applies appropriate legal norms and standards indicated to him in specific activities in the organization.

relating to social competences:

PEU_K01 Is aware of the need to independently develop their knowledge and professional skills and is able to independently develop this knowledge and improve skills.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	General characteristics of civil law. Source of civil law	2
Lec 2	The standards of civil law. The use of civil law. Natural persons. Legal Persons	2
Lec 3	Ownership and other rights in rem. Legal protection of intellectual	2
Lec 4	Commitments-the nature and nature legal obligations. Types of commitments. Agreement as a source commitments	2
Lec 5	The concept of commercial law and its source	2
Lec6	The economic activity-basic concepts statutory	2
Lec7	Commercial Companies personal and economic capital on the market	2
Lec8	Characteristics other major types of enterprises	2
Lec9	Cease existence legal business-bankruptcy procedures and remedial action	2
Lec10	Securities-types and characteristics	2
Lec11	Legal protection fair competition in economic activity	2
Lec12	Judicial settlement of economic affairs	2
Lec13	The legal basis of the business environment in the European Union	2
Lec14	The conditions and procedures legal establishment and operation of economic activities in the countries of the European Union	2
Lec15	Benefits and costs associated with setting up of economic activities in the selected countries of the European Union	2
Total hours		30

Classes		Number of hours
Cl1	Organizational classes - discussing the rules of organizing the lecture and the conditions of passing	1
Cl2	The concept and types legal acts. Legal form. The Delegation and representation in the rules of civil law	2
Cl3	Right Commission-types rights. Law enforcement personal	2
Cl4	Starting a business - legal conditions and procedures	2
Cl5	The establishment of economic activities-legal conditions and procedure	2
Cl6	Commercial companies and their personal characteristics	2
Cl7	The company partnership,, the company limited-SE-conditions for the formation and economic activity	2
Cl8	Conditions and methods of preparation which may give rise starting a trading company and strong capital-specificity contractual forms and records	2
Total hours		15

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation N2. Group work N3. Own 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_W01	Exam result
F2	PEU_U01; PEU_K01	Assessment of group work
F3	PEU_U01; PEU_K01	Assessment of own work
P (lecture)= F1 P (classes)= 0,5*F2+0,5*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] The Commercial Companies Code, Wyd. C.H.Beck, Warszawa 2010 [2] Ożga E., The great dictionary of law and economic, Wyd. C.H.Beck, Warszawa 2009 [3] Gil I., Marszałkowska-Krześ E., Code of civil procedure, Wyd. Wolters Kluwer Warszawa 2011 <u>SECONDARY LITERATURE:</u> [1] <i>The Commercial Companies Code</i> , C.H.Beck, Warszawa 2010 [2] Rossini C., <i>English as a legal Language</i> , London 1998 [3] <i>Handbook of Polish Law</i> , PWN, Warszawa 2011
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Aldona Dereń; aldona.deren@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: KOMUNIKACJA W ZARZĄDZANIU****Name of subject in English: COMMUNICATION IN MANAGEMENT****Main field of study (if applicable): MANAGEMENT****Specialization (if applicable): ORGANIZATIONAL MANAGEMENT****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL8066S****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 (P) classes					3
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1.2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS, AND OTHER COMPETENCES

1. Basic public speaking skills; verbal delivery of coherent message on a given subject matter

SUBJECT OBJECTIVES

C1 Acquaint students with effective communication strategy using current media

C2 Provide students with tools how to prepare and deliver multimedia presentation on a specific topic

C3 Inform students how to give reasonable feedback and evaluation, and receive constructive criticism to improve own and others' communication skills

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student knows basic methods, techniques, and tools for solving problems related to managerial communication.

relating to skills:

PEU_U01 Student can independently use a variety of Polish and foreign sources of information, in particular the professional literature. She can integrate the obtained information and use it to deepen specialist knowledge related to the field of social sciences, the discipline of management sciences, in particular to managerial communication.

PEU_U02 Student understands general and scientific listening and reading texts related to the field of social sciences, discipline of management sciences. Can express herself (orally and in writing), participate in discussions and present opinions in multicultural environment - in a foreign language.

relating to social competences:

PEU_K01 Student can cooperate and work in group and team forms of work organization (taking various roles in them).

PEU_K02 Student is prepared to take responsibility for assigned tasks.

PEU_K03 Student is prepared to communicate, persuade, and defend one's views in the name of achieving common goals. Student is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT		
Seminar		Number of hours
Sem 1	Introduction to course outline. Communication as key managerial competence.	2
Sem 2	How communication influences organizational strategy.	2
Sem 3	Supportive communication and its impact on organizational performance.	2
Sem 4	Persuasive communication: how power and authority change communication process.	2
Sem 5	Differences in communication style based on managerial position.	2
Sem 6	Differences in communication style between women and men in managerial positions.	2
Sem 7	Communication and technology: writing, speaking, listening.	2
Sem 8	Dealing with news and media from the managerial perspective.	2
Sem 9	Ethics and managerial communication.	2
Sem 10	Managerial communication in crisis.	2
Sem 11	Interview, listening, and feedback.	2
Sem 12	Communication in multicultural companies.	2
Sem 13	Barriers to effective communication.	2
Sem 14	Business meetings that work; how managers should conduct business meetings.	2
Sem 15	Summary and final discussion. Quiz. Assessment of student's work including team report.	2
Total hours		30

TEACHING TOOLS USED	
N1. Multimedia presentation N2. Case analysis N3. Teamwork N4. Discussion	

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_U01 PEU_U02	Topic presentation
F2	PEU_U02 PEU_K01 PEU_K02	Team report
F3	PEU_U02 PEU_K03	In-class participation

F4	PEU_W01	Quiz
$P = F1*0.3+F2*0.3+F3*0.2+F4*0.2$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Bovee, C.L. & Thill, J.V. (2014). Business communication essentials (6th). Boston: Pearson. [2] Whetten, D.A., Cameron K.S. (2011). Developing Management Skills. New Jersey: Prentice Hall [3] Zelazny, G. (2001). From data to chart. Say it with charts: The executive's guide to visual communication. McGraw-Hill ISBN: 9780071369978.		
<u>SECONDARY LITERATURE:</u> [1] Robbins S. P., Judge, T.A. (2013) Organizational Behavior, New Jersey: Pearson Education, Inc. [2] Downs, C. W., Adrian, A. D. (2004) Assessing Organizational Communication New York, London: The Guilford Press		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
JOLANTA BABIAK	jolanta.babiak@pwr.edu.pl	

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Współczesne metody i techniki organizacyjne****Name of subject in English: Contemporary organizational methods and techniques****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8073****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)	25	25			
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)	0.6	0.6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Fundamentals of management

SUBJECT OBJECTIVES

C1 Getting by the students basic knowledge about the contemporary methods and techniques in management

C2 Understanding the issues related to the organizational processes and selected methods and techniques in management

C3 Ability of analysis, measurement of processes in organizations

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 has structured knowledge of organizational processes

PEU_W02 has structured knowledge of selected contemporary methods and techniques in management

relating to skills:

PEU_U01 has the ability to identify the organizational processes
 PEU_U02 has the ability to use chosen methods/techniques in management
 relating to social competences:
 PEU_K01 properly identify and resolve dilemmas related to management

PROGRAM CONTENT		
Lectures		Number of hours
Lec 1	Organizational issues, criteria of student evaluation Organizational processes – basic information	2
Lec 2	Activity Based Management (ABM)	4
Lec 3	Balanced Scorecard (BSC)	2
Lec 4	Planning Methods & Techniques	4
Lec 5	OPTIMAL MBO (Management by Objectives)	2
Lec 6	Test	1
	Total hours	15

Classes		Number of hours
Cl 1	Organizational issues, criteria of student evaluation. Business Canvas Model - exercises lists	2
Cl 2	Activity Based Management (ABM) - exercises lists	2
Cl 3	Activity Based Management (ABM) - workshops	4
Cl 4	Balanced Scorecard (BSC) - exercises lists	2
Cl 5	Balanced Scorecard (BSC) - workshops	3
Cl 6	Presentation of students' works (related to workshops)	2
	Total hours	15

TEACHING TOOLS USED
N1. multimedia presentation N2. case studies N3. exercises lists N4. workshops

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	Test
F2	PEU_U01, PEU_U02, PEU_K01	Exercises lists
F3	PEU_U01, PEU_U02,	Workshops

	PEU_K01	
F4	PEU_U01, PEU_U02, PEU_K01	Presentation of students' works (related to workshops)
P (Lectures) = F1 P (Classes) = 0,2*F2+0,2*F3+0,6*F4		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Coke A., Seven steps to a successful business plan, Amacom, New York 2002 [2] Kaplan R.S., Anderson S.R., Time-Driven Activity-Based Costing: A Simpler and More Powerful Path to Higher Profits, Harvard Business School Press, Boston, Massachusetts 2007 [3] Kaplan R.S, Norton D.P., The Balanced Scorecard: Translating Strategy into Action, President and Fellows of Harvard College, USA 1996		
<u>SECONDARY LITERATURE:</u>		
[1] McKee A., Management: a focus on leaders, Boston: Pearson 2012		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
dr hab inż. Agata Klaus-Rosińska, prof. uczelni agata.klaus-rosinska@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Finanse przedsiębiorstw**Name of subject in English:** Corporate finance**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8018**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)	75	25			
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)	1.2	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basics of Economics
2. Basics of Accounting

SUBJECT OBJECTIVES

- C1. to familiarize students with the most important financial mechanisms operating in the company
 C2. to familiarize students with the main sources of company financing and their characteristics
 C3. to familiarize students with the methods used to evaluate company's financial condition

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

Students receiving credition:

- PEU_W01 – know basic financial categories and know differences between accounting and economic models of economic information,
 PEU_W02 – know basic efficiency model of corporation,
 PEU_W03 – have knowledge about main sources of company financing – their types, features, functions and costs,
 PEU_W04 – know methods of company's financial situation evaluation, have knowledge about introductory evaluation of a company on the basis of it's financial reports and methods of ratio analysis.

relating to skills:

Students receiving credition:

PEU_U01 – are able to see dependencies and cause-effect relationships between events taking place in the company,

PEU_U02 – have skills of searching for and applying information from various sources in the financial decision making process,

PEU_U03 – are able to apply learned tools and methods of corporation's financial situation evaluation in economic practice.

relating to social competences:

Students receiving credition:

PEU_K01 – are able to identify and supplement a lacking knowledge that allows to solve financial problems,

PEU_K02 – understand a need for permanent education and skills development and know the possibilities and ways of development of their skills.

PEU_K03 – are prepared for taking part in projects aiming at changes in management of company's resources,

PEU_K04 – are able to identify opportunities and threats to the company's financial situation in an external environment,

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	The basic financial categories	2
Lec 2	Overview of assets - their characteristics and functions	2
Lec 3	Types and functions of capital	2
Lec 4	Cost of capital	2
Lec 5	Financial concepts of profit	2
Lec 6	Transition from cash to accrual accounting principle	2
Lec 7	Cost-volume-profit analysis	4
Lec 8	Financial leverage	2
Lec 9	Operating leverage	2
Lec 10	Total leverage	2
Lec 11	Profitability analysis	44
Lec 12	Liquidity and working capital management	2
Lec 13	Methods of company's financial statement evaluation	2
	Total hours	30

Classes		Number of hours
Cl 1	Transition from cash to accrual accounting principle	2
Cl 2	Cost-volume-profit analysis	3
Cl 3	Operating leverage	2
Cl 4	Financial leverage	2
Cl 5	Total leverage	2
Cl 6	Profitability analysis	2
Cl 7	Test	2
	Total hours	15

TEACHING TOOLS USED
N1. Lecture with multimedia presentation and discussion N2. Exercises solving and discussion N3. Individual work – preparation for classes and exam

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
F	PEU_U01, PEU_U02, PEU_U03, PEU_K01, PEU_K02, PEU_K03, PEU_K04	Test
P	PEU_W01, PEU_W02, PEU_W03, PEU_W04	Exams
P1 (classes) = 0,2 activity + 0,8 test P2 (lecture) = 0,05 presence + 0,95 exams		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Brealey R.A., Myers S.C., Allen F., <i>Corporate Finance</i> , McGraw-Hill, Irwin, Boston 2006. [2] Damodaran A., <i>Corporate Finance, Theory and Practice</i> , John Wiley & Sons, New York 2001 [3] Brigham E.F., Gapenski L.C., Ehrhardt M.C., <i>Financial Management, Theory and Practice</i> , The Dryden Press, Rort Worth 1999.		
<u>SECONDARY LITERATURE:</u> [2] Ross S.T., Westerfield R.W., Jaffe J.F., <i>Corporate Finance</i> , McGraw-Hill, Irwin, Boston 2005		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl		

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Technologia przetwarzania danych**Name of subject in English:** Data processing technology**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL8063**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)	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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2		1.2		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knows the functional and hardware structures of computers, the concept and the classification of computer software.

SUBJECT OBJECTIVES

C1 To get knowledge about relational data bases and ways of creating and using them in practice.

C2 To acquire capability to create and use of relational database systems for getting information ad hoc for company management purposes.

C3 To acquire social competences specific for the applications of database systems in management information systems.

SUBJECT EDUCATIONAL EFFECTS		
relating to knowledge:		
PEU_W01. Knows the relational data base structure and basic problems of their creating and using.		
PEU_W02. Knows operations of the relational algebra as a basis of the relational database system functioning in data gathering, memorizing and distributing.		
PEU_W03. Knows a data base graphical user interface.		
relating to skills:		
PEU_U01 Capable to implement a simple relational data base system.		
PEU_U02 Capable to get information ad hoc from the relational database system by defining in the data base graphical user interface data retrieval processes.		
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 the application of the database systems in management problems solving.		
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 application of the database systems in management problems solving.		
PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Presentation of the requirements and grading. Relational database technology. Data base management system. Relational data base and its structure. Update data operations. Integrity constraints.	4
Lec 2	Definition, application and implementation of operation on tables: selection, projection, equi-join. Superposition of selection, projection and equi-join operations.	4
Lec 3	Definition, application and implementation of operation on tables: set-theoretic operations: union, intersection, unsymmetrical difference, complement.	4
Lec 4	Definition, application and implementation of operation on tables: division and theta-join.	4
Lec 5	Interpretation of queries given in a natural language and planning of the data processing process. Optimizing of the data processing process.	4
Lec 6	Update anomalies. Table decomposition, schema decomposition.	4
Lec 7	Functional dependences between data in tables and their types. Use of the functional dependences in data base schema design.	4
Lec 8	Written test (F4)	2
	Total hours	30
Laboratory		Number of hours
Lab 1	Presentation of the requirements and grading. Sample database management system and its functions; creating a data	2

	base; defining of the data base table structures.	
Lab 2	Defining of the data properties, primary and additional keys. Applying of integrity constraints in the data base design and verifying the data base management system control functions.	2
Lab 3	Forms, their application, types and structure. Form implementation.	2
Lab 4	Practical test (F1).	2
Lab 5	Trading company data base case study. Tables and relationships. Primary and additional keys.	2
Lab 6	Select and make table queries. Defining queries. Query properties.	2
Lab 7	Defining of the one table search process. Implementation of the selection and projection operations.	2
Lab 8	Defining of the many tables search process. Defining of the virtual columns, data grouping, selecting and aggregating, aggregation functions.	2
Lab 9	Practical test (F2).	2
Lab 10	Defining of the tables union processes. Append queries. The set-theoretic union operation implementation.	2
Lab 11	Defining of the tables intersection processes. The set-theoretic intersection operation implementation.	2
Lab 12	Defining of the tables difference processes. Delete queries. The set-theoretic difference operation implementation.	2
Lab 13	Implementation of the complement operation. Reports, their application, types and structures. Report implementation.	2
Lab 14	Practical test (F3).	2
Lab 15	Summary. Credit.	2
	Total hours	30

TEACHING TOOLS USED

N1. Lecture
N2. Multimedia presentation
N3. Laboratory instruction
N4. Instruction during classes
N5. Workstation with graphical operation system MS Windows and MS Access

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_U01	Practical test
F2	PEU_W02	Practical test

	PEU_W03 PEU_U01 PEU_U02	
F3	PEU_W02 PEU_W03 PEU_U01 PEU_U02	Practical test
F4	PEU_W01 PEU_W02 PEU_W03 PEU_K01(partialy) PEU_K02(partialy)	Written test
Laboratory: $P=(F1+F2+F3)/3$ Lecture: $P=F4$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Jeffrey D. Ullman, Jennifer Widom. A first course in database systems. Upper Saddle River : Prentice Hall, 1997. [2] Witold Rekuć Laboratory instruction [3] Witold Rekuć Multimedia presentation <u>SECONDARY LITERATURE:</u> [1] C. J. Date. An introduction to database systems. Boston [etc.] : Pearson Addison Wesley, cop. 2004		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Yash Chawla, yash.chawla@pwr.edu.pl Michał Jarema Michal.jarema@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Statystyka Opisowa****Name of subject in English: Descriptive Statistics****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8006****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)	120	60			
Form of crediting	Examination	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	4	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	0.5			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of mathematical analysis: extremes of functions, differential and integral calculus of functions with a single variable.

SUBJECT OBJECTIVES

C1 To gain knowledge of the fundamentals of probability theory.

C2 To learn to use common methods of describing data.

C3 To be able to carry out statistical analysis based on empirical data.

C4 Appreciation of the potential of probabilistic models when events have uncertain outcomes.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 The student will know the basic tools of descriptive statistics, will understand the fundamental concepts of probability theory and will be able to develop appropriate probabilistic models in the analysis of statistical data.

relating to skills:

PEU_U01 The student will be able to analyze statistical data and interpret the results of such analysis.

PEU_U02 The student will be able to construct simple probabilistic models useful in the management process.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Conditions of obtaining credit. General population, sample, representative sample, random sample, measurement precision and bias.	2
Lec 2	Graphical methods of describing samples. Measures of centrality and dispersion, skewness.	2
Lec 3-4	Frequency interpretation of probability and axioms of probability. Conditional probability, probability trees, Bayes' theorem, independence of events.	4
Lec 5-6	Discrete random variables and their distributions.	4
Lec 7	Continuous random variables and their distributions.	2
Lec 8	The normal distribution.	2
Lec 9-10	The central limit theorem and its applications. Distribution of the sample mean and proportion. Normal approximation to the binomial distribution.	4
Lec 11	Joint distributions of two discrete random variables. Correlation coefficient.	2
Lec 12	Conditional distributions. Probabilistic regression.	2
Lec 13-14	Estimation of the parameters of a distribution. Method of moments and maximum likelihood estimation.	4
Lec 15	Interval estimation. Confidence intervals.	2
	Total hours	30
Classes		Number of hours
Cl 1	Conditions of obtaining credit. Types of variables. Sampling. Precision and bias.	1
Cl 2	Graphical and numerical methods of describing samples.	2
Cl 3	Conditional probability. Probability trees. Bayes' theorems. Independence of events.	2
Cl 4	Discrete distributions: Bernoulli, binomial, Poisson and the applications.	2
Cl 5	Continuous distributions: uniform, exponential, Pareto, normal distribution and their applications.	2
Cl 6	Joint distributions. Correlation coefficient and its interpretation. Conditional distributions.	2
Cl 7	Point estimation (method of moments and maximum likelihood estimation) and confidence intervals.	2
Cl 8	Written test.	2
	Total hours	15
TEACHING TOOLS USED		
N1. Lists of exercises for the problems classes. N2. Lists of additional exercises for studying. N3. Examples of applications in everyday problems, management and economics. N4. Presentation of data in the media. N5. Presentation of additional problems and applications.		

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	Exam
F2	PEU_U01, PEU_U02	Written report
F3	PEU_U01, PEU_U02	Written test
P(Lecture) = F1 P(Classes) = 0.3 F2 + 0.7 F3		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Sinaj J. G. <i>Probability theory: an introductory course</i> . Springer-Verlag, Berlin [2] Weiers R. M. <i>Introduction to business statistics</i> . Thompson Brooks/Coole, Belmont [3] Kvanli A. H., Pavur R. J. And Guynes C. S. <i>Introduction to business statistics: a computer integrated, data analysis approach</i> . South-Western College Publishing, Cincinnati		
<u>SECONDARY LITERATURE:</u>		
[1] Ross S. M. <i>Introduction to probability and statistics for engineers and scientists</i> . Academic press, Burlingto. [2] Lewis M. <i>Applied statistics for ecocomists</i> . Routledge, London. [3] Wilcox R. R., Boca R. <i>Modern statistics for the social and behavioral sciences: a practical introduction</i> . CRC press, Raton, Fla.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Dr Dimitrios Sotiros dimitrios.sotiros@pwr.edu.pl Dr inż. Robert Kapłon robert.kaplon@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Seminarium dyplomowe
Name of subject in English: Diploma Seminar
Main field of study (if applicable): Management
Specialization (if applicable): Organizational Management
Profile: academic
Level and form of studies: 1st full-time
Kind of subject: obligatory
Subject code: W08ZZZ-SL8023S
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)					25
Form of crediting					crediting with grade
For group of courses mark (X) final course					
Number of ECTS points					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)					0,6

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Cross-sectional knowledge of the issues from the study.

SUBJECT OBJECTIVES

- C1 Preparing students for the bachelor thesis realisation in accordance with the requirements obligatory at the faculty – lecturer's and students' assistance in the topic and the aim of the diploma thesis formulation or their disambiguation, the work structure planning.
- C2 Acquiring the skills of writing a dissertation to present own achievements – from the problem identification, the tasks planning, the appropriate sources use, to the work realisation and the interpretation of the results (all with the editorial requirements consideration).
- C3 Improving the skills of presenting to the audience: own ideas, concepts and planned solutions in a comprehensible manner.
- C4 Reinforcing the skill of creative discussion, give a possibility of factual and substantive explanation and defence of the own point of view, pay attention to especially important elements and flawed or ignored aspects of the planned work.
- C5 Preparing the students for diploma exam.

SUBJECT EDUCATIONAL EFFECTS

relating to skills:

PEU_U01	Can identify (at the bachelor level) a managerial problem and plan its solution using appropriate methods, techniques and tools.
PEU_U02	Can elaborate a piece of work in the form of the dissertation.
PEU_U03	Can prepare a presentation to deliver the results of the analysis and the concepts of problem solving.
PEU_U04	Can incisively substantiate own ideas and solutions, evaluate the planned activities and solutions of other students in a critical way.

Seminar		Number of hours
Se1	Organizational seminar: an introduction to the course, the plan and the organization of the classes, the rules of credit receiving. Short introduction to the range of the studies and the specialisation of the faculty different departments (websites of the departments).	1
Se2	Presentation of the requirements of the university and of the faculty that concern diploma thesis. Diploma process and schedule. The criteria of accepted disambiguation in the diploma thesis topic. Rules of the managerial problem identification and formulation, the formulation of diploma thesis topic and aim. The examples of well-defined and incorrect topics/aims of the bachelor thesis. Recommendation of the tutorials with prospective supervisors – to recount during the next classes. Presentation and discussion concerning the progress of thesis topic and supervisor choices (1).	2
Se3	Presentation of the diploma thesis declaration form – topic, aim, scope, structure. Discussion of the dissertation construction – the order of the content, an introduction and a conclusion. The common errors. Presentation and discussion concerning the progress of the diploma thesis topic and supervisor choices (2) .	2
Se4	Requirements concerning dissertation edition. Presentation of the methods of the literature sources access, analysis and quoting. Consultation concerning the first version of the diploma thesis declaration. Discussion. The allotment of the date of diploma thesis progress individual presentation. Consultation and planning the work scope in current semester (to pass the course).	2
Se5	Presentation of the dissertation evaluation criteria (review form). The notion of the plagiarism, system for plagiarism detection. Recommendations concerning preparation of the dissertation chapter expected to pass the course. Approval of the final version of the diploma thesis declaration.	2

	Presentation, consultation and discussion about the problems and progress in the thesis realisation. Recommendations concerning the ways of the work progress presentation during the coming seminars.	
Se6	Presentation of the diploma exam elements. Exam issues and questions. Presentation, consultation and discussion about the problems and progress in the thesis realisation. Individual presentations of the work progress and the plans of the thesis realisation (1). Discussion.	2
Se7	Individual presentations of the work progress and the plans of the thesis (2). Discussion.	2
Se8	Individual presentations of the work progress and the plans of the thesis (3). Discussion.	2
	Total hours	15

TEACHING TOOLS USED

- N1. Presentations of the selected issues concerning thesis topics.
- N2. Multimedia presentation – own and adopted (positive and negative examples).
- N3. Problem discussion, recognizing the ideas advantages and critic their drawbacks.
- N4. Individual tutorial concerning students' problems with the work planning and realisation.

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	On-time submission of the thesis declaration (topic, aim, problem, concept, draft structure) and its evaluation.
F2	PEU_U03	Evaluation of the preparation to the seminar and presentation of the thesis realisation progress and plans of the future work.
F3	PEU_U04	Contribution to the discussion.
F4	PEU_U02	Initial part of the dissertation (characteristics of the object, the problem, the methods and tools used in problem solving).
$P = 0,2 \cdot F1 + 0,2 \cdot F2 + 0,2 \cdot F3 + 0,4 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Literature concerning the issues of the thesis – own choice and recommended by the thesis supervisor.

SECONDARY LITERATURE:

- [1] Booth, W.C., Colomb, G.G., Williams, J.M., Bizup J. & Fitzgerald W.T. (2016). The Craft of Research: Fourth Edition, University of Chicago Pr. ISBN-13: 978-0226239736
- [2] Evans, D., Gruba, P., Zobel, J. (2014). How to Write a Better Thesis, Springer. ISBN-13: 978-3319042855
- [3] Joyner, R.L., Rouse, W.A. & Glatthorn A.A. (2018). Writing the Winning Thesis or Dissertation: A Step-By-Step Guide, Corwin PR Inc. ISBN-13: 978-1544317205
- [4] Kornuta, H. (2019). Concise Guide to Writing a Thesis or Dissertation: Educational Research and Beyond, Routledge. ISBN-13: 978-0367174583
- [5] Lunenburg, F.C., Irby B.J (2008). Writing a Successful Thesis or Dissertation: Tips and Strategies for Students in the Social and Behavioral Sciences, Corwin Press, <https://dx.doi.org/10.4135/9781483329659>
- [6] Schimel, J. (2012). Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded, Oxford University Press. ISBN-13: 978-0199760244

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy finansów****Name of subject in English: Essentials of finance****Main field of study: Management****Specialization: Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8061****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 (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2				

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1. Acquiring by students the familiarity with basic financial notions and categories related to financial markets, institutions, instruments, and money.

C2. Possessing by students the knowledge and skills of correct usage of financial notions and relationships for selected problems concerning financial system operations, money creation process, and time value of money.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 – know basic financial categories concerning financial markets, institutions, and instruments

PEU_W02 – have basic knowledge of role and functioning of money in economy, of banking system and of central banks

PEU_W03 – know how to apply the knowledge on money creation process and on time value

of money to simple analytical tasks.
relating to skills:
PEU_U01 – can correctly use the notions and financial terminology from the scope of fundamentals of finance.
PEU_U02 – are able to perform quantitative analyses of selected simple financial tasks in the area of money creation process and time value of money.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Organization and content of the course. Requirements for crediting.	1
	Finance – etymology, definition, subdisciplines, relations to other disciplines	1
Lec 2	Carriers in Finance.	1
	Introductory definitions of financial markets and instruments.	1
Lec 3	Money and its functions – introduction.	1
	Selected financial notions.	1
Lec 4	Integration of components in the financial environment.	1
	Investors in finance, examples of activism, influence on firm's value. Quiz1.	1
Lec 5	Basic financial categories – definitions.	1
	Types of financial institutions and their functions.	1
Lec 6	Key market securities. Quiz2.	1
	Measures of money. Depository institutions.	1
Lec 7	Central banks – goals and policy tools.	1
	Creation of money in a banking system.	1
Lec 8	Supply of money and money multiplier. Quiz 3.	1
	Mid-term exam (test).	1
Lec 9	Banks' liquidity and profitability.	1
	Capital adequacy and its ratios.	1
Lec 10	Quantitative easing (case of Bank of England).	2
Lec 11	Secondary marketing and securitization.	1
	Fundamental challenges of finance – valuation and management.	1
Lec 12	Time and risk in finance – principles.	1
	Assets, cashflows, and time.	1
Lec 13	The present value operator, cost of capital, net present value, examples.	1
	Future value, simple interest and compound interest, examples.	1
Lec 14	Annuity, perpetuity, growing perpetuity.	1
	Examples and key points.	1
Lec 15	Final exam.	2
	Total hours	30

TEACHING TOOLS USED

N1. Slide presentations
N2. Scans of selected pages from finance textbooks for home reading
N3. Discussion
N4. Quizzes

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	W01,W02, U01	Mid-term exam (test)
F2	W03, U02	Final exam
$P = 0.4 * F1 + 0.6 * F2$		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE [1] Ritter L.S., Silber W.L., Udell G.F., Principles of Money, Banking and Financial Markets, Prentice Hall, 1997. [2] Burton M., Nesiba R., Brown B., An Introduction to Financial Markets and Institutions, M.E. Sharpe, Inc., 2010.
SECONDARY LITERATURE [1] Owsiak S., Podstawy nauki finansów, PWE, Warszawa 2002. [2] Podstawka M. (red. nauk.), Finanse, Wydawnictwo Naukowe PWN, Warszawa 2010.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Wojciech Sibilski, wojciech.sibilski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy zarządzania****Name of subject in English: Essentials of management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8002****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)	75	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)	-	2	-	-	-
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1,2	1,2	-	-	-

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

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SUBJECT OBJECTIVES

To ensure fundamental knowledge about:

C1.Characteristics, elements and types of organizations and impact the environment on organizational operations,

C2. Management processes, functions, principles and tools.

To ensure fundamental skills to:

C3. Analyse and evaluate selected characteristics of the organization and selected internal and interorganizational relationships.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01: Distinguishes between and characterises basic types and forms of organisation, identifies their objectives, and other elements. Can explain key concepts in the theory of organisation with regard to their formation, functioning, transformation and development.

PEU_W02: Explains the essence of management, knows basic trends (schools) in the theory of organisation and management. Recognises the conceptual basics of management, interprets functions of management. Applies basic classification criteria to management methods and techniques. Describes selected management methods and techniques.

PEU_W03: Identifies functional areas of an enterprise, relations between them, as well as key factors shaping the effectiveness and efficiency of operations implemented in those functional areas.

relating to skills:

PEU_U01: Arranges and systematises fundamental knowledge in various economic sciences. Distinguishes between and characterises basic types of economic systems and their elements.

PEU_U02: Knows and explains the content of basic economic terms, laws, and dependencies at the microeconomic and the macroeconomic scale. Characterises major theories in economics. Knows the basic purposes and institutions of a market economy and their functions. Has knowledge of the economic conditions of the functioning of the economy and organization.

PEU_U03: Has fundamental knowledge regarding organisational structures, structure-making factors, and their shaping processes.

relating to social competences:

PEU_K01: Able to initiate business operations, selects organisational and legal forms, formulates organisational objectives and prepares actions designed to attain them efficiently.

PROGRAMME CONTENT			
Lecture			Number of hours
Lec 1	Introduction to classes		1
Lec 2-3	The evolution of management and contemporary management perspective		2
Lec 4-5	The environments of organizations and managers		2
Lec 6-7	Planning and strategic management		2
Lec 8-11	Organization structure and design		4
Lec 12-13	Organization change and innovation		2
Lec 14-16	Basic element of individuals behavior in organizations		3
Lec 17-20	Managing employee motivation and performance		4
Lec 21-22	Leadership and influence processes		2
Lec 23-24	Communication in organizations		2
Lec 25-28	Managing works and teams		4
Lec 29-30	Basic elements of control		2
	Total hours		30
Classes			Number of hours
Cl 1	Introduction to classes		1

Cl 2-3	Understanding the managers' job- case study	2
Cl 4-5	The environments of organizations and managers- case study	2
Cl 6-7	Using SWOT analysis to formulate strategy -case study	2
Cl 8-11	Organization structure and design -case study	4
Cl 12-13	Change analysis sheet	2
Cl 14-15	Managing human resources in organization -case study	2
Cl 16-18	Understanding individuals in organization case study	3
Cl 19-20	Managing employee motivation and performance case study	2
Cl 21-22	Leadership and influence processes-case study	2
Cl 23-24	Communication in organization- discussion& problem solving	2
Cl 25-26	Groups & teams in organization- discussion& problem solving	2
Cl 27-28	Managing conflict in organizations- discussion& problem solving	2
Cl 29-30	Managing control in organizations -discussion& problem solving	2
	Total hours	30

TEACHING TOOLS USED

- N1.Traditional lectures with multimedia presentation
N2.Question to students during lecture
N3.Case studies presented during the lecture
N4. Discussion of selected issues
N5. Case studies solving (independently by student or jointly with other students)
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)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_K01	Quizzes (during classes)
F2	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_U02 PEU_U03	Case studies
F3	PEU_W01 PEU_W02 PEU_W03 PEU_U01 PEU_U02 PEU_U03	discussion& problem solving
P1	Final mark consist of F1 (60%) and F2&F3 (40%)	
P2	PEU_W01 PEU_W02 PEU_W03 PEU_K01	Exam

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Stephen P. Robbins, Mary A. Coulter, David A. De Cenzo, Fundamentals of Management: Essential Concepts and Applications, Pearson Education Limited, 2019 [2] Ricky W. Griffin, Fundamentals of Management, CENGAGE Learning Custom Publishing, 2021 [3] Mary Jo Hatch, Organization Theory: Modern, Symbolic, and Postmodern Perspectives, Oxford University Press, 2018 <u>SECONDARY LITERATURE:</u> [1] John McAuley, Philip Johnson, Joanne Duberley, Organization Theory, Pearson Education Limited, 2013 [2] Stephen P. Robbins, Mary Mathew, Organization Theory: Structure, Design, and Applications, Pearson Education Limited, 2021 <u>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</u> Liliana Hawrysz, Liliana.hawrysz@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Rachunkowość finansowa w procesie podejmowania decyzji****Name of subject in English: Financial accounting in the organizational decision making process****Main field of study: Management****Specialization: Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8067****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)	50	25			
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)	1.2	0.6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1 Possessing the basic knowledge about the principles of accounting, methods of transaction analysis, and about formal (legal) and/or generally accepted requirements of bookkeeping and of financial reporting.

C2 Possessing the ability of analyzing transactions, recording them in the ledger, closing the books, and preparing financial statements.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 – have an ordered knowledge of the object, scope and principles of financial accounting, about economic operations of organizations and the accounting principles of their documentation and recording.

PEU_W02 – characterize elements of organization of accounting process and know foundations of financial reporting and components of financial statements (balance

sheet, profit and loss statement, cash flow statement)		
Relating to skills:		
PEU_U01 – are able to apply in practice the principles of transaction analysis, to record transactions in the ledger, to close books, and to prepare components of financial statements (balance sheet, profit and loss statement).		
Relating to social competences:		
PEU_K01 – have the consciousness of significance of accounting as a language of business in the economic activity.		
PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Organization and content of the course. Requirements for crediting	1
	Introduction – the nature of accounting, accounting as a measure of financial success, financial versus managerial accounting.	1
Lec 2	The balance sheet. The entity and the reliability concept. Legal regulations of financial accounting.	1
	Transaction analysis. Balance sheet basic types of transactions - examples.	1
Lec 3	Types of ownership. Accounting for owners' equity	1
	The accounting profession, auditor's report.	1
Lec 4	Income measurement – the accrual basis. The accounting time period. Revenues and expenses.	1
	Accrual basis versus cash basis. Recognition of revenues. Matching and cost recovery.	1
Lec 5	Depreciation. Recognition of expired assets	1
	The income statement report. The statement of cash flows	1
Lec 6	Accounting for dividends and retained income. Statement of retained income.	1
	Recording process: journals and ledgers. The double-entry accounting system.	1
Lec 7	General journal. Chart of accounts. Double-entry accounting examples.	1
	Mid-term exam	1
Lec 8	Analyzing transactions for the journal. Preparing the trial balance.	1
	Exemplary company trial balance, balance sheet and income statement	1
Lec 9	Accounting adjustments.	1
	Cash flows and adjusting entries.	1
Lec 10	Accounting cycle – extended example	4
Lec 11	Posting. Closing the accounts	2
Lec 12	Financial statement preparation	2
Lec 13	Final exam	2
Lec 14	Retake exam (usually required) and discussion of learning outcomes achieved	2
	Total hours	30
Classes		Number of hours
Cl 0	Organization and content of the course. Requirements for crediting	1
Cl 1	Components of a balance sheet. Balance sheet transactions (analysis and recording in tabular form).	2
Cl 2	Revenues and expenses. Income statement. Statement of cash flows. Retained income. Dividends.	2

Cl 3	Double-entry accounting system. Debits and Credits. General journal and general ledger. Trial balance. Basic principles of accrual accounting. Mid-term test.	2
Cl 4	Accounting period. Adjustments to the accounts. Classified balance sheet. Working capital. Multi-step income statement. Basic ratios.	2
Cl 5	Accounting cycle. Closing the books. Preparing formal statements.	2
Cl 6	Examples, case studies	2
Cl 7	Final exam	2
	Total hours	15

TEACHING TOOLS USED

N1 Slide presentations
N2 Practical exercises and case studies
N3 Quizzes
N4 Scans of selected pages from financial accounting textbooks for home reading

EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIVEMENT

Evaluation (F – forming (during semester), C – concluding (at semester end))	Learning outcomes number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02, PEU_U01	Mid-term test
F2	PEU_W01, PEU_W02, PEU_U01	Final exam
F3	PEU_W01, PEU_W02, PEU_U01	Mid-term test
F4	PEU_W01, PEU_W02, PEU_U01	Final exam

$P(\text{lecture}) = 0,4 \cdot F1 + 0,6 \cdot F2$

$P(\text{classes}) = 0,4 \cdot F3 + 0,6 \cdot F4$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE

- [1] Lecture slides and set of class texts (files delivered to students).
- [2] Horngren Ch.T., Sundem G.L., Elliott J.A., Introduction to Financial Accounting, Prentice Hall, 1993.

SECONDARY LITERATURE

- [1] Kimmel P.D., Weygant J.J., Kieso D.E., Accounting – tools for business decision making, John Wiley and Sons, 2011.
- [2] Piper M., Accounting made simple, Oblivious investor, 2010.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Wojciech Sibilski wojciech.sibilski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Analiza finansowa wspomagana komputerem****Name of subject in English: Financial analysis supported by computer****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8090****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)	50		25		
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)	1.2		0.6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1 None

SUBJECT OBJECTIVES

C1. Introducing core concepts of financial analysis.

C2. Provide an overview of computer software and systems useful in financial analysis.

C3. Developing analytical skills necessary to perform comprehensive financial statement analysis supported by computers.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 – Understand the basic principles, objectives and problems of financial analysis.

PEU_W02 – Familiarise the audience with computer software and systems useful in financial analysis.

Relating to skills:

PEU_U01 – Ability to perform comprehensive financial statement analysis based on relevant resources and methods.
PEU_U02 – Ability to evaluate the financial standing of an enterprise using computer software.
Relating to social competences:
PEU_K01 – Awareness of constantly changing legal, economic and social determinants of financial standing of enterprises.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Introduction and crediting rules	2
Lec 2-3	Financial statements	4
Lec 4-5	Financial statement analysis	4
Lec 6-7	Ratios analysis	4
Lec 8-9	Modelling and forecasting	4
Lec 10-11	TPS, MIS and DSS in financial analysis	4
Lec 12-13	ESS, ERP and corporate platforms	4
Lec 14	Summary	2
Lec 15	Final test	2
	Total hours	30

Laboratory		Number of hours
Lab 1	Introduction and crediting rules	1
Lab 2	Profitability ratios	2
Lab 3	Liquidity ratios	2
Lab 4	Activity ratios	2
Lab 5	Leverage ratios	2
Lab 6	Value ratios	2
Lab 7	DuPont Financial Analysis Model	2
Lab 8	Bankruptcy Prediction Models	2
	Total hours	15

TEACHING TOOLS USED
N1. Informative lectures
N2. Discussion-based lectures
N3. Assignments
N4. Computations
N5. 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_W01, PEU_W02,	Test
F2	PEU_U01 PEU_U02 PEU_K01	Report
P (lecture) = F1 P (laboratory) = F2		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] A. Dzikowski, Financial analysis supported by computer, ZPR PWr, 2020 <u>SECONDARY LITERATURE:</u> [1] J. Van Horne, J.M. Wachowicz: Fundamentals of Financial Management, 13/E, Pearson, 2009 [2] S. Foerster: Financial Management - Concepts and Applications, Pearson, 2015 [3] S. Titman, A.J. Keown, J. D. Martin: Financial Management: Principles and Applications, Global Edition, 13/E, Pearson, 2018 [4] R. Brooks: Financial Management: Core Concepts, Global Edition, 3/E, Pearson, 2016 [5] C.J. Zutter, S.B. Smart: Principles of Managerial Finance, Brief, 8/E, Pearson, 2019 [6] K. Laudon, K.C. Laudon, J.P. Laudon: Management Information Systems: Managing the Digital Firm, Global Edition, 16/E, Pearson, 2020 [7] A.T. Cope, M.A. Broihahn, W.L. Pirie, E. Henry, T.R. Robinson: International Financial Statement Analysis, 3rd Edition, Wiley, 2015 [8] C. Carlberg: Business Analysis with Microsoft Excel, Fifth Edition, Que, 2018
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Adam Dzikowski, adam.dzikowski@pwr.edu.pl Magdalena Gádek, magdalena.gadek@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Inżynieria finansowa**Name of subject in English:** Financial engineering**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management (OM)**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL8071**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)	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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge of financial markets and elementary probability and statistics.

SUBJECT OBJECTIVES

C1 To provide basic information about construction, valuation and the use of derivatives in the financial markets.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 Knows the basic debt instruments and their valuation methods.

PEU_W02 Knows portfolio theory.

PEU_W03 Knows the four basic classes of derivatives - forwards, futures, swaps and options.

PEU_W04 Knows option pricing methods – the binomial and Black-Scholes approaches.

Relating to skills:

PEU_U01 Can build a portfolio of debt instruments and measure its sensitivity.

PEU_U02 Can construct optimal portfolios from stocks and bonds.

PEU_U03 Can evaluate forwards, futures and swaps using the (no-)arbitrage approach.

PEU_U04 Can price options using binomial trees and the Black-Scholes method.		
Relating to social competences:		
PEU_K01 Is aware of the need for an independent, critical assessment of the scope and level of his/her knowledge in the field of financial engineering. Is prepared for conducting self-studies in this area.		
PEU_K02 Can engage in a discussion and defend his/her views regarding the methods of financial engineering.		
PROGRAMME CONTENT		
Lectures		Number of hours
Lec1	Discussion of credit policy and class organization.Introduction; Investments and investors	2
Lec2	Financial markets, stock and futures exchanges	2
Lec3	Currencies, debt instruments, yield curve	4
Lec4	Capital market, portfolio theory	4
Lec5	Forwards, futures and swaps: applications and pricing	4
Lec6	Options; Portfolios of derivatives	4
Lec7	Binomial option pricing model: valuation and hedging strategy	4
Lec8	Black-Scholes model; Sensitivity analysis	4
Lec9	Final test	2
	Total hours	30
Classes		Number of hours
Cl1	Discussion of credit policy and class organization.Time value of money	2
Cl2	Debt instruments	2
Cl3	Portfolio theory	2
Cl4	Forwards, futures and swaps: applications and pricing	2
Cl5	Options; Portfolios of derivatives	2
Cl6	Binomial option pricing model: valuation and hedging strategy	3
Cl7	Black-Scholes model; Sensitivity analysis	1
Cl8	Written test	1
	Total hours	15
TEACHING TOOLS USED		
N1. Multimedia lecture N2. Practical exercises N3. Discussion N4. Student's own work		

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	PEU_W01÷PEU_W04 PEU_U01÷PEU_U04	Class participation (participation in discussions and problem solving, preparation for class activities)
F2	PEU_W01÷PEU_W04 PEU_U01÷PEU_U04	Grade based on the final test
F3	PEU_W01÷PEU_W04	Test grade
P (L) = ½ F1 + ½ F2 P (C) = ½ F1 + ½ F3		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Z. Bodie, A. Kane, A.J. Marcus (2007) Essentials of Investments (6th ed.), McGraw-Hill [2] J. Hull (2008) Options, Futures and Other Derivatives (7th ed.), Prentice Hall [3] A. Weron, R. Weron (1998, ..., 2009) Inżynieria finansowa, WNT		
<u>SECONDARY LITERATURE:</u>		
[4] J. Czekaj, red., (2008) Rynki, instrumenty i instytucje finansowe, PWN [5] E.J. Elton, M.J. Gruber, S.J. Brown, W.N. Goetzmann (2002) Modern Portfolio Theory and Investment Analysis, Wiley [6] F.J. Fabozzi (2005) The Handbook of Fixed Income Securities", McGraw-Hill [7] J. Franke, W. Härdle, C. Hafner (2005) Introduction to Statistics of Financial Markets, Springer [8] K. Jajuga, T. Jajuga (1996, ..., 2007) Inwestycje, PWN [9] P. Wilmott (2000) Paul Wilmott on Quantitative Finance, Wiley, Chichester		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Prof. dr hab. Rafał Weron, rafal.weron@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie finansami****Name of subject in English: Financial Management****Main field of study (if applicable): Management****Specialization (if applicable) Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8083****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)	50	25			
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)	1.2	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of basic organizational and legal forms of organization
2. Basic knowledge of financial reporting
3. The ability to make simple mathematical calculations

SUBJECT OBJECTIVES

C1 Knowledge of financial management at the operational level: the tasks of financial management in the enterprise and the role of the financial manager managing current assets, ensuring financial liquidity, testing profitability, cash cycle and shaping the company's financial policy towards suppliers and recipients.

C2 Knowledge of the sources of financing business activities and the mechanisms of their acquisition, including the determination of the cost of capita.

C3 Basic knowledge of the assessment of the effectiveness of economic ventures along with understanding the volatility of the value of money over time.

SUBJECT LEARNING OUTCOMES relating to knowledge:

PEU_W01 He knows the sources of financing economic activity and the mechanisms of its acquisition, as well as the concept of capital budget and the cost of capital

PEU_W02 He knows the methods of assessing the effectiveness of investment projects

PEU_W03 Has basic knowledge of financial management. Understands the mechanisms of current financial management - ensuring liquidity, shaping the cash cycle, analyzing business profitability relating to skills:

PEU_U01 The student will be able to evaluate the effectiveness of investment projects, including the construction of capital budgets and the valuation of capital costs, using the knowledge gained in class as well as expanding on various sources of information, in particular professional materials.

PEU_U02 Can make decisions affecting the liquidity or profitability of the business, as well as the choice of sources of finance. Can justify his/her decisions, participate in discussions in this field and justify his/her opinions.

PEU_U03 He can convert the value of the cash stream in time, determine the value future and current cash flows relating to social competences:

PEU_K01 Is aware of the changing value of money over time and its impact on making management decisions

PEU_K02 Understands the consequences of decisions made on the financial result of the organization and its ability to service liabilities on a current basis.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction - organisational activities. The concept of financial management and value for the organization	2
Lec 2	Introduction to the modeling of time value of money	2
Lec 3	Models of the present and the future value of money	2
Lec 4	Models of the present and the future value of annuity	2
Lec 5	Classification of financial sources of the organization	2
Lec 6	Cost and risk of debt and equity financing	2
Lec 7	Share pricing models- dividend models	2
Lec 8	Share pricing models – models of stable profit growth	2
Lec 9	Bond pricing models	2
Lec 10	Cost of capital valuation model of organization	2
Lec 11	The risk of some forms of financing and its measurement	2
Lec 12	Introduction to the market valuation of the risk - CML model	2
Lec 13	Real investments in the company	2
Lec 14	Introduction to assessing financial performance of investments	2
Lec 15	Test	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction - organisational activities. Interest rates on loans.	2
Cl 2	Calculation of the future and the present value of money. Cost-effectiveness study of deposits and credit costs	2
Cl 3	Calculation of the annuity. Repayment of loans by the classical method and equal payments	2
Cl 4	Calculation of share price-dividend method	2
Cl 5	Calculation of the share price - constant growth dividend method	2
Cl 6	Bond price calculation	2

Cl 7	WACC calculation	2
Cl 8	Test	1
	Total hours	15
TEACHING TOOLS USED		
N1. Multimedial lecture N2. Problems resolving N3. Calculation 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_W03, PEU_W04 PEU_U01 PEU_U02	exam
F2	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Colloquium
F3	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Activity
F4	PEU_K02	attendance
P1 (wykład) = 0,1 F4 + 0,9 F1		
P2 (ćwiczenia) = 0,6 * F2 + 0,3 * F3 + 0,1 * F4		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] FINANCIAL Management : Theory and Practice / Eugene F. Brigham, Michael C. Ehrhardt. - 11 ed.. - Mason : Thomson : South-Western Cengage Learning, 2005
- [2] CONTEMPORARY Corporate Finance / James R. McGuigan, William J. Kretlow, R. Charles Moyer. - 11 ed., internat. student ed.. - Mason : South-Western Cengage Learning : Thomson, 2009.
- [3] INTERMEDIATE Financial Management / Eugene F. Brigham, Louis C. Gapenski. - 5 ed.. - Fort Worth : The Dryden Press : Harcourt Brace College Publishers, c. 1996

SECONDARY LITERATURE:

- [1] CAPITAL budgeting and investment analysis / Alan C. Shapiro. - Upper Saddle River : Pearson Education, c. 2005..
- [2] Levy H., Sarnat M., Capital investment and Financial Decisions, Prentice Hall, Hertfordshire, 1994
- [3] LUMBY S., Investment Appraisal and Financial Decisions, London, Chapman & Hall, 1996

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Tadeusz Dudycz, tadeusz.dudycz@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Systemy informatyczne w zarządzaniu****Name of subject in English: Information Systems in Management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8091****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)	50		25		
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)	1.2		0.6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Knowledge about:

1. information systems,
2. theory of organisation and management
3. essentials of enterprise management

SUBJECT OBJECTIVES

C1 Knowledge of management information systems (MIS)

C2 Ability to use MIS

C3 Ability to selection of MIS

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – knowledge of MIS definitions and classifications

PEU_W02 – knowledge of basic functions in business areas of MIS

PEU_W03 – knowledge of MIS history and new approaches

PEU_W04 – knowledge of rules of selecting MIS

relating to skills:

PEU_U01 – ability to classify a MIS

PEU_U02 – ability to analyze functionality of MIS system

PEU_U03 – ability to model business process

PEU_U04 – 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. Rules of assessment.	2
Lec 2	Basics of management information systems	2
Lec 3	Classifications of information systems	2
Lec 4	Financial functions in MIS	2
Lec 5	Logistics functions in MIS	2
Lec 6	Production functions in MIS	2
Lec 7	CRM and PRM systems	2
Lec 8	BI systems	2
Lec 9	WFM systems	2
Lec 10	Introduction to implementation of MIS	2
Lec 11	The proces of implementation	2
Lec 12	Methods of MIS selection	2
Lec 13	Methods of describing organization's requirements	2
Lec 14	Business process modeling in the organization	2
Lec 15	Conclusion	2
	Total hours	30
Form of classes - class		Number of hours
Form of classes - laboratory		Number of hours
Lab 1	Introduction. Rules od assessment.	1

Lab 2	Organization's requirements	2
Lab 3	Description of selected MIS	2
Lab 4	Analysis of functionality of MIS	2
Lab 5	Selection criteria	2
Lab 6	Comparasion of selected MIS	2
Lab 7	Selection of the best MIS for the organization	2
Lab 8	Conlusion	2
	Total hours	15

TEACHING TOOLS USED

N1. Traditional lecture
N2. Using MIS tool
N3. Self-learning – for labs

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_W04 PEU_U01 - PEU_U02 PEU_K01 PEU_K03	Test
F2	PEU_U02 –PEU_U04 PEU_K01 PEU_K02 PEU_K04 PEU_K05	Evaluation of the lab work

P(lecture) = F1

P(laboratory) = F2

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] James O'Brien, George Marakas: Management Information Systems, McGraw-Hill/Irwin, 2010
- [2] Ken Laudon, Jane Laudon: Management Information Systems, Prentice Hall; 11 edition, 2009
- [3] R. Kelly Rainer, Hugh J. Watson: Management Information Systems, Moving Business Forward, Wiley, 2012

SECONDARY LITERATURE:

- [1] Computerworld magazine
- [2] Teleinfo magazine

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Adam Wasilewski, adam.wasilewski@pwr.edu.pl
Ewa Prałat, ewa.pralat@pwr.edu.pl

FACULTY OF MANAGEMENT

SUBJECT CARD**Name of subject in Polish** Technologie informacyjne**Name of subject in English** Information Technology**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8003**Group of courses** YES

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)			120		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark final course with (X)			X		
Number of ECTS points			4		
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)			1.5		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None.

SUBJECT OBJECTIVES

C1 To acquire knowledge of selected tools and methods used to support gathering, processing, analyzing, presenting data and their applications in organizations.

C2 To acquire skills to use selected IT tools at an advanced level, for management support.

C3 To acquire knowledge of the threats, security and protecting data and the intellectual property.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Has knowledge of information technologies used to acquire, collect, process and present data, and in particular, knows tools and methods of text processing, data calculations, analysis, visualization and presentation of results and their applications in organizations, nowadays and future trends.

PEU_W02 Understands importance of security and protection of data and intellectual property. Knows cyberattack techniques and preventive measures.

relating to skills:

PEU_U01 Can use appropriate features of selected software and Internet services to address challenges in word processing, calculations and economic analysis, and to visualize, collect and integrate results.

PROGRAM CONTENT		
Lecture		Number of hours
Lec 1	Introduction to the lecture. Discussion of credit requirements. Basic spreadsheet features and functions.	2
Lec 2	Functions and methods of data gathering, analysis and visualization in a spreadsheet.	4
Lec 3	Advanced Microsoft Excel features.	4
Lec 4	Tools and methods of text processing.	4
Lec 5	Advanced functions of text processing; Mail Merge.	2
Lec 6	Tools and techniques of preparing and conducting a business presentation.	2
Lec 7	Inter-application data exchange (OLE). Automating tasks in Microsoft Office.	4
Lec 8	IT and networking fundamentals.	2
Lec 9	Network, systems and data security.	2
Lec 10	Digital signature. Intellectual property and copyright issues.	2
Lec 11	Grading, remarks and conclusions.	2
	Total hours	30
Laboratory		Number of hours
Lab 1	Introduction to the lab classes. Discussion of credit requirements. The computer lab environment and safety rules.	1
Lab 2	Basic spreadsheet features and functions.	2
Lab 3	Advanced functions and methods of data gathering, analysis and visualization in a spreadsheet.	4
Lab 4	Tools and methods of text processing.	4
Lab 5	Presentation / elective task.	2
Lab 6	Failed assignments retake and final remarks.	2
	Total hours	15
TEACHING TOOLS USED		
N1. Traditional lecture with overhead slides N2. Demonstration of selected features and functions of software tools using a PC and an overhead projector N3. Short movies demonstrating selected features of software tools N4. Assignments to carry out individually in the computer lab or at home N5. Discussion of the achievements (causes of failures if applicable) during each presentation of students' results		

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	Assessment of the lab task results and understanding of the solutions
F2	PEU_W01, PEU_W02, PEU_U01	Bonus credit points.
F3	PEU_W01, PEU_W02	Class attendance and activity.
$P(\text{lecture}) = 0,3 * F3$ $P(\text{laboratory}) = 0,7 * F1 + 0,2 * F3 + 0,1 * F2$ $P(\text{GK}) = 0,2 * P(\text{lecture}) + 0,8 * P(\text{laboratory})$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Grus J., Thinking Spreadsheet: An Opinionated Guide to Problem Solving and Data Analysis Using Microsoft Excel (or Your Favorite Alternative), Brightwalton, 2019. [2] VanHuss S.H., Forde C.M., Woo D.L., Advanced Word Processing, South Western Educ Pub, 2020. [3] Stair R., Reynolds G., Principles of Information Systems, Course Technology, 2021. [4] Kizza J.M., Guide to Computer & Network Security, Springer, 2020.		
<u>SECONDARY LITERATURE:</u>		
[1] Weixel S., Wempen ., Learning Microsoft Office 365. Advanced Student Edition, Prentice Hall 2021. [2] Laudon K.C., Jane P. Laudon J.P., Management information systems: managing the digital firm, Pearson Education, 2020. [3] Chaffey D., White G., Business information management: improving performance using information systems, Pearson Education, 2019. [4] Stallings W., Case T., Business data communications: infrastructure, networking and security, Pearson, 2019.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Wiesław Dobrowolski, wieslaw.dobrowolski@pwr.edu.pl Yash Chawla, yash.chawla@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Prawo międzynarodowe****Name of subject in English: International law****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL8080****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)	25	25			
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)	0.6	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1. The acquisition of basic knowledge in the field of International Law

C2. Conquest of ability of awareness and, in sphere of international law interpretation norms obligatory

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows and understands the basic concepts and principles of legal and economic conditions relating to consumer activities, marketing and business activities in accordance with the regulations of international law

PEU_W02 Knows and understands the basic concepts and principles of intellectual property protection in the conditions defined by the regulations of international law. Has knowledge of the legal conditions for the functioning of the organization.

PEU_W03 Characterizes the essence and forms of entrepreneurship and identifies the premises for its formation and development, in accordance with the regulations adopted in international law.

relating to skills:

PEU_U01 Is able to use the basic methods, techniques and tools to identify the conditions and context of the company's operation in accordance with the regulations adopted in international law.

PEU_U02 Is able to use normative systems and applies appropriate norms and legal standards indicated to him

relating to social competences:

PEU_K01 Is aware of the need to independently develop their knowledge and professional skills and is able to independently develop this knowledge and improve skills.

PEU_K02 Is prepared to identify and analyze social problems in the workplace and to search for their solutions to them.

PEU_K03 Is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational lecture - discussing the rules of organizing the lecture and the conditions of passing	1
Lec 2	International law and its sources. Principles of functioning of contemporary international organizations. Processes and structure of international organizations. International agreements and their importance for the processes of international integration and globalization	2
Lec 3	The concept of property rights in international law. Sources and principles of international protection of human rights	2
Lec 4	International civil and commercial law. Privacy, economic freedom in international law	2
Lec5	Status of business organizations in the provisions of international law. Protection of intellectual property rights in international law	2
Lec6	Characteristics of international conventions on the protection of industrial property. International procedures for the protection of intellectual property rights	2
Lec7	Legal bases of international marketing. Consumer protection in international law. International product protection and safety standards. Liability and dispute resolution in international law	2
Lec8	Final test	2
Total hours		15

Classes		Number of hours
Cl1	Organizational classes - discussing the rules of organizing the lecture and the conditions of passing	1
Cl2	Taxonomy and review international trade agreements	2
Cl3	The contract of sale in international law	2
Cl4	International standards contracts	2
Cl5	The contractual liability in international law	2
Cl6	International standards for the protection free competition	2

Cl7	The legal bases for international cooperation in trade	2
Cl8	Prospects for development of international law	2
	Total hours	15

TEACHING TOOLS USED	
N1. Problem lecture with the use of a multimedia presentation N2. Group work N3. Own 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_W01; PEU_W02; PEU_W03	Final test evaluation
F2	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of group work
F3	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of own work
P (lecture) = F1 P (classes)= 0,5*F2+0,5*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] <i>Polish Yearbook of International Law</i>, Wydawnictwo Instytutu nauk Prawnych Warszawa 2010. [2] I. Brownlie, <i>Principles of Public International Law</i>, (OUP 2008). [3] I. Slomanson, W. William, <i>Fundamental Perspectives on Internationa Law</i>, Boston 2011. <u>SECONDARY LITERATURE:</u> [1] The Free Dictionary Definition of Human Rights”, The American Heritage Dictionary of the English Language, Fourth Edition, Houghton Mifflin Company, 2011. [2] R. Filipek, <i>Protection of Human Rights in the EU – Meeting the Standards of a European Human Rights System?</i>, A. Bodnar et al. (red.) The Emerging Constitutional Law of the European Union. German and Polish Perspectives, Heidelberg 2003,
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Aldona Dereń; aldona.deren@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD**

Name of subject in Polish: Praktyka
Name of subject in English: Internship
Main field of study (if applicable): Management
Specialization (if applicable): Organizational Management
Profile: academic
Level and form of studies: 1st level, full-time
Kind of subject: obligatory
Subject code: W08ZZZ-SL8082Q
Group of courses: NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					
Number of hours of total student workload (CNPS)		150			
Form of crediting		Crediting with grade*			
For group of courses mark (X) final course					
Number of ECTS points		5			
including number of ECTS points for practical classes (P)		5			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)		0			

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Professional training should be carried out in the period starting (at the earliest) from the 4th semester.

SUBJECT OBJECTIVES

C1. Practical use of theoretical knowledge in the realities of the functioning enterprises and other economic organizations.
 C2. Acquiring practical skills to develop and supplement the student's knowledge obtained in the studies.
 C3. Developing the ability to cooperate and build professional relationships in the real conditions of the organization's functioning.

SUBJECT EDUCATIONAL EFFECTS**Relating to social competences:**

PEU_K01 The student is ready to perform various roles in the organization / project teams, etc., in accordance with the expectations / preferences of the employer.

PEU_K02 The student is aware of the importance of the relationship between knowledge and managerial and business activity as well as responsibility for the decisions made.

PEU_K03 The student is aware of the necessity of independent learning and the necessity of continuous

improvement of professional qualifications in connection with economic and technological progress.

PROGRAMME CONTENT

The substantive scope of the internship is directly related to the diploma profile, each time agreed with the organization accepting the student for internship and written in the document "Framework program of internships" (Annex No. 2 to the Principles of student internships, WSZJK).

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_K01 PEU_K02 PEU_K03	Assessment based on a prepared professional training plan, approved by the employer.
P = F1		

PRIMARY LITERATURE:

BOOK OF PROCESSES OF THE FACULTY OF EDUCATIONAL QUALITY ASSURANCE SYSTEM

<https://wz.pwr.edu.pl/o-wydzial/wydzialowy-system-zapewnienia-jakosci-ksztalowania/ksiega-procesow>

In particular, the point: 7. Implementation of student internships.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Wprowadzenie do zarządzania ryzykiem**Name of subject in English:** Introduction to Risk Management**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8092**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)	25	25			
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)	0.6	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of the mechanics of financial markets, elementary probability and statistics.

SUBJECT OBJECTIVES

C1 To provide information about the statistics of financial markets, the use of financial instruments to manage risk and the tools for risk measurement.

SUBJECT LEARNING OUTCOMES

Relating to knowledge:

PEU_W01 Knows the mechanics of financial markets.

PEU_W02 Knows how to measure statistical properties of financial asset prices.

PEU_W03 Knows how to use financial instruments to manage risk.

PEU_W04 Knows how to measure risk.

Relating to skills:

PEU_U01 Can measure volatility of asset prices.

PEU_U02 Can evaluate duration and convexity of bond portfolios.

PEU_U03 Can build stock portfolios.

PEU_U04 Can measure VaR and CFaR.

Relating to social competences:

PEU_K01 Is aware of the need for an independent, critical assessment of the scope and level of his/her knowledge in the field of risk management. Is prepared for conducting self-studies in this area.

PEU_K02 Can engage in a discussion and defend his/her views regarding the methods of risk management.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec1	Discussion of credit policy and class organization. Investments, financial markets, stock and futures exchanges	4
Lec2	Statistics of financial markets	3
Lec3	FX and debt instruments, duration and convexity	2
Lec4	Capital market, elements of portfolio theory	2
Lec5	Value-at-risk (VaR), Cash Flow-at-Risk (CFaR)	3
Lec6	Written test	1
	Total hours	15
Classes		Number of hours
Cl1	Discussion of credit policy and class organization. Financial markets, stock and futures exchanges	2
Cl2	Statistics of financial markets	3
Cl3	FX and debt instruments, duration and convexity	2
Cl4	Capital market, elements of portfolio theory	2
Cl5	Value-at-risk (VaR), Cash Flow-at-Risk (CFaR)	4
Cl6	Final test	2
	Total hours	15

TEACHING TOOLS USED
N1. Multimedia lecture N2. Practical exercises N3. Discussion N4. Student's own work

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	PEU_W01÷PEU_W04 PEU_U01÷PEU_U04	Class participation (participation in discussions and problem solving, preparation for class activities)
F2	PEU_W01÷PEU_W04 PEU_U01÷PEU_U04	Grade based on the final test
F3	PEU_W01÷PEU_W04	Test grade
$P(W) = \frac{1}{2} F1 + \frac{1}{2} F3$ $P(\acute{C}) = \frac{1}{2} F1 + \frac{1}{2} F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Z. Bodie, A. Kane, A.J. Marcus (2007) Essentials of Investments (6th ed.), McGraw-Hill [2] J. Franke, W. Härdle, C. Hafner (2005) Introduction to Statistics of Financial Markets, Springer [3] P. Jorion (2006) Value at Risk (3rd Ed.), McGraw-Hill <u>SECONDARY LITERATURE:</u> [1] E.J. Elton, M.J. Gruber, S.J. Brown, W.N. Goetzmann (2002) Modern Portfolio Theory and Investment Analysis, Wiley [2] F.J. Fabozzi (2005) The Handbook of Fixed Income Securities", McGraw-Hill [3] P. Wilmott (2000) Paul Wilmott on Quantitative Finance, Wiley, Chichester
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Prof. dr hab. Rafał Weron, rafal.weron@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Wprowadzenie do SQL****Name of subject in English: Introduction to SQL****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8064****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)	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)	1.2		1.2		

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1 To get knowledge about relational data bases and ways of creating and using them in practice.

C2 To acquire capability to create and use of relational database systems for getting information ad hoc for company management purposes.

C3 To acquire social competences specific for the applications of database systems in management information systems.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01. Knows the structure of a relational database and the basic problems and methods of its design and implementation.

PEU_W02. Knows the operations of relational algebra as the basis for using a relational database system in collecting, storing, and sharing data and the database system query language.

relating to skills:

PEU_U01. Can design and implement a simple relational database system.
 PEU_U02. Can retrieve ad hoc information from a relational database by defining data retrieval processes in query language.
 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 the application of the database systems in management problems solving.
 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 application of the database systems in management problems solving.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Description of the course syllabus, organization of classes, rules of obtaining credit and evaluation.	1
Lec 2	Technology of relational databases. Database management system. Relational database and its structure. Creating tables.	4
Lec 3	Data update operations. Integrity constraints. Referential actions. Examples solved together with students.	4
Lec 4	Definition, application and implementation of operations on tables: selection, projection, grouping, sorting. Examples.	4
Lec 5	Definition, application, and implementation of table operations: equality-join. Composition of selection, projection, and equality-join operations. Outer joins. Examples.	4
Lec 6	Views. Subqueries. Definition, application and implementation of operations on tables: set-theory operations: union, intersection, asymmetric difference, set complement. Examples.	4
Lec 7	Definition, application, and implementation of table operations: division and theta-join.	4
Lec 8	Selected advanced SQL capabilities: window and ranking functions, user functions, conditional statements and loops, triggers. Final written test (F4).	5
	Total hours	30
Laboratory		Number of hours
Lab 1	Presentation of the requirements and grading. Sample database management system and its functions; creating a database; defining of the database table structures in SQL.	2
Lab 2	Defining the data properties, primary and additional keys in SQL.	2
Lab 3	Update operations in SQL and verifying the database management system integrity control functions.	2
Lab 4	Practical test (F1).	2
Lab 5	Trading company database case study. Tables and relationships. Primary and foreign keys.	2

Lab 6	Select and make table queries. Defining queries in SQL.	2
Lab 7	Defining the one-table search process. Implementation in SQL of the selection and projection operations.	2
Lab 8	Defining the many tables search process. Defining the calculated columns, data grouping, selecting and aggregating, aggregation functions in SQL.	2
Lab 9	Practical test (F2).	2
Lab 10	Defining the tables union processes. Append queries. The set-theoretic union operation implementation in SQL.	2
Lab 11	Defining the tables intersection processes. The set-theoretic intersection operation implementation in SQL.	2
Lab 12	Defining the tables difference processes. Delete queries. The set-theoretic difference operation implementation in SQL. Implementation of the complement operation in SQL.	2
Lab 13	Implementation of table operations: division and theta-join in SQL.	2
Lab 14	Practical test (F3).	2
Lab 15	Summary. Credit.	2
	Total hours	30

TEACHING TOOLS USED

- N1. Multimedia presentation.
N2. Laboratory instructions.
N3. A computer with MS SQL Server and MS SQL Management Studio software installed.

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	Practical test on the computer
F2	PEU_W01 PEU_U02	Practical test on the computer
F3	PEU_W02 PEU_U02	Practical test on the computer
F4	PEU_W01 PEU_W02	Final written test
P(Lab)=(F1+F2+F3)/3 P(Lect)=F4		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Ramez A Elmasri, Shamkant B Navathe, Fundamentals of database systems, Boston, Pearson, 2007. [2] Jeffrey D. Ullman, Jennifer Widom. A first course in database systems. Upper Saddle River, Prentice Hall, 1997. [3] Database management system documentation. <u>SECONDARY LITERATURE:</u> [1] C. J. Date. An introduction to database systems. Boston: Pearson Addison Wesley, 2004.
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Michał Jarema, michal.jarema@pwr.edu.pl Maria Galant-Pater, maria.galant-pater@pwr.edu.pl (consultant)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Badanie wymagań dotyczących systemów informacyjnych****Name of subject in English: Investigation of MIS requirements****Main field of study (if applicable): Management****Specialization (if applicable): Organizational management****Profile: academic****Level and form of studies: 1st level full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8076****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)	25	25			
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)	0.6	0.6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Management essentials.

SUBJECT OBJECTIVES

C1 To understand the relations between information system and the enterprise.

C2. To understand the role of requirements analysis in information systems development.

C3. To use different techniques of gathering and documenting information requirements.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student knows selected methods of organization information systems identification and analysis.

PEU_W02 – Student knows selected methods of gathering the information requirements for developing/changing computer systems in the organization.

relating to skills:

PEU_U01 – Student can identify and analyze the needs of information systems users and knows how to gather the necessary information from users

PEU_U02 – Student knows how to analyze the decisions and the documents in the organization.

relating to social competences:

PEU_K01 – Student can search for and choose professional methods to solve problems, take responsibility for their choices, communicate, persuade and defend their views related to the analysis of information systems.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Introduction to the lecture. Discussing the conditions of obtaining credit.	1
Lec 2	Organization and its information system: Information system definition. Elements that determine information requirements of information systems users: organizational goals, problems and critical success factors identification.	2
Lec 3	Classification of computer systems. Information requirements analysis in project management.	2
Lec 4	Planning and conducting business interviewing/survey	2
Lec 5	Document analysis: identification method of information requirements.	2
Lec 6	Decision making processes as sources of dynamic (semi- or non-measurable) requirements.	2
Lec 7	Information requirements engineering methodology. Written test.	2
Lec 8	Other techniques for gathering and analyzing information requirements: brainstorming, prototyping, interface analysis, etc. Retake	2
	Total hours	15
Classes		Number of hours
Cl 1	Introduction to the classes. Discussing the conditions of obtaining credit.	1
Cl 2	Information system environment (organization).	2
Cl 3	Information subsystems identification. Identification of problems with information flow.	2
Cl 4	Preparing information investigation plan for subsystem.	2
Cl 5	Questionnaire survey.	2
Cl 6	Analysis of organizational documents.	2
Cl 7	Decision tables. Analysis of organizational decisions	2
Cl 8	Interviews and other methods. Grading.	2
	Total hours	15

TEACHING TOOLS USED

N1. Lecture with multimedia presentation

N2. Group discussion during classes
 N3. Home works
 N4. Written test

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	Written test
F2	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01	Evaluation of home works and class works
F3	PEU_U01 PEU_U02 PEU_K01	Activity

P(Lecture) = F1

P(Classes) = $0,8 * F2 + 0,2 * F3$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Kendall, K.E., Kendall, J.E., Systems Analysis and Design, 10th ed., Pearson, 2019.
- [2] Chaffey, D. & White, D., Business Information Management, 2nd ed., Pearson Education, 2011.
- [3] Robertson S., Robertson J., Mastering the Requirements Process: Getting Requirements Right, 3rd ed., Addison-Wesley, Boston 2012.

SECONDARY LITERATURE:

- [1] Hickman L., Longman C., Business Interviewing, Addison-Wesley Publishing Co., 1994.
- [2] DeMarco T. et al., Adrenaline Junkies and Template Zombies, Dorset House, New York, 2008.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Ewa Pralat, ewa.pralat@pwr.edu.pl
 Asha Thomas, asha.thomas@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Informatyczne narzędzia zarządzania projektami****Name of subject in English: IT Tools in Project Management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level studies, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL8088****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)	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)	1.2		0.6		

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of project management methods.
2. Knowledge of methods of analysis and modeling of management information systems.

SUBJECT OBJECTIVES

C1 Knowledge of the functionality of traditional and modern IT project management tools.

C2 Knowledge of the principles of using tools and ways to assess their usefulness.

C3 Computer-aided project management skills.

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 knows the basic engineering techniques, methods and technologies useful for managing IT projects.

PEU_W02 knows the functionality of IT tools used in solving IT project management problems.

relating to skills:

PEU_U01 is able to assess the usefulness and apply the selected IT tool to solve IT project management problems

PEU_U02 is able to use the tools to support the planning and monitoring of the project realization

PEU_U03 is able to present (orally and in writing) the adopted and developed solutions relatively flawlessly, participate in discussions and justify the developed solutions.

relating to social competences:

PEU_K01 is aware of the need to independently expand his knowledge in the field of IT tools supporting project management.

PEU_K02 is able to interact and work in a team, assuming different roles.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Discussion of the purpose and structure of the lecture. Defining requirements. Organizational matters. Basic concepts in IT project management.	2
Lec 2	Traditional and modern methods in IT project management.	2
Lec 3	Portfolio / project management.	2
Lec 4	Classification of IT tools. Functionality of computer-aided project management tools.	2
Lec 5-6	Selected tools to support project management.	4
Lec 7	Criteria for choosing methods and tools for project management.	2
Lec 8	Defining the project plan: scope, resources, cost and quality.	2
Lec 9	Controlling of project realization	2
Lec 10	Internal and external communication.	4
Lec 11	Estimating the complexity of the project	
Lec 12	Contradiction and change management.	2
Lec 13	Successes and failures of IT projects	2
Lec 14	IT trends in project management.	2
Lec 15	Assessment	2
	Total hours	30
Laboratory		Number of hours
Lab 1	Determining the subject of work and organization of the team	1
Lab 2	Defining the project. Conditions for adapting to the needs of the project environment.	2
Lab 3	Choice of project management methodology and tools.	2
Lab 4	Elements of the project management plan. Project WBS structure (scope). Milestone No. 1	2
Lab 5	Calendar. Schedule construction (milestones, resource allocation, baseline). Defining a baseline. Milestone No. 2.	2
Lab 6	Network Diagram. Critical path / critical chain. Resource load reporting.	2
Lab 7	Recording of actual values. Control of progress. Correcting the schedule. Milestone 3.	2
Lab 8	IT tools functionality assessment. Milestone No. 4. Final assessment.	2
	Total hours	15

TEACHING TOOLS USED
N1. MS Office, MS VISIO, Ms Project software N2 Problem lecture N3. Discussions N4. Case study N5. Work completed with the presentation of results

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 PEU_K02	Report (Milestone No. 1)
F2	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Report (Milestone No. 2)
F3	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Report (Milestone No. 3)
F4	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Report (Milestone No. 4)
F5	PEU_W01	Test
F6	PEU_W02	Test
PW (lecture) = F5 + F6, evaluation according to a spot marking scale PL (laboratory) = F1+F2+F3+F4, evaluation according to a spot marking scale		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Chatfield C., Johnson T., Microsoft Project, Krok po kroku, APN Promise 2013
- [2] Kompendium wiedzy o zarządzaniu projektami, PMBOK Guide, 2000 Edition – przekład, MT&DC 2003
- [3] PichlerR., Zarządzanie projektami ze Scrumem, Helion 2014

SECONDARY LITERATURE:

- [4] Snedaker S., Zarządzanie projektami IT, Helion 2007
- [5] Wilczewski S., Ms Project 2013 i Ms Project Server 2013: efektywne zarządzanie projektem i portfelem projektów, Helion 2009
- [6] Wilczewski S., Ms Project 2007: ćwiczenia praktyczne, Helion 2014
- [7] Bradley K., Podstawy metodyki PRINCE2, CRM S.A., W-wa 2005.
- [8] Schwaber K., Sprawne zarządzanie projektami metodą Scrum, Microsoft Press 2005

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr Sebastian Tomczak sebastian.tomczak@pwr.edu.pl;
dr Joanna Kott, joanna.kott@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Logistyka****Name of subject in English: Logistics****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: Academic****Level and form of studies: 1st level, full-time****Kind of subject: Obligatory****Subject code: W08ZZZ-SL8074****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)	25	25			
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)	0.6	0.6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of management.

SUBJECT OBJECTIVES

C1 Getting by the students basic knowledge about the area of logistics in business organizations.

C2 Understanding the issues that are related to the area of logistics, including basic issues, e.g. ABC/XYZ classification, logistics centre location, JIT, inventory control, material requirements planning and transportation scheduling.

C3 Ability of analysis, measurement and monitoring of supply chain.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - Has structured knowledge of the supply chain and incorporates recent developments in logistics management.

PEU_W02 - Is aware of the importance of logistics processes in performance of business organizations.

relating to skills:

PEU_U01 - Has the ability to identify the factors influencing the supply chain.

PEU_U02 - Has the ability to carry out economical calculations, which are the base to assessing the cost-effectiveness of the solutions used in the supply chain.

relating to social competences:

PEU_K01 - Properly identify and resolve dilemmas related to the logistics profession.		
PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Description of the course syllabus, organization of classes and the rules of obtaining credit and evaluation. Introduction to logistics – origins, definitions, evolution, trends.	1
Lec 2	Concepts of logistics, logistics strategies, methods, principles and systems.	2
Lec 3	Areas and logistics activities in modern enterprises.	2
Lec 4	Logistics processes, order processing, information systems and integration.	2
Lec 5	Supply logistics, production logistics, distribution logistics, green & city logistics.	2
Lec 6	Fundamentals of purchasing, warehousing and transportation systems.	2
Lec 7	Logistics systems' requirements – forecasting, planning and decision making.	2
Lec 8	Course summary - practical conclusions and assessment.	2
	Total hours	15
Classes		Number of hours
Cl 1	Description of the course syllabus, organization of classes and the rules of obtaining credit and evaluation. Introduction to logistics – definition, evolution, activities, principles, trends.	1
Cl 2	Application of ABC (Pareto) and XYZ (demand variation) classification methods in logistics (inventory control, purchasing). Würth Group (distribution system) and Wal-Mart (cross-docking strategy) case studies. An overview of logistics strategies in enterprises. Basic solutions to the problem of logistics centre location (modal and network of geographical logistics configuration).	4
Cl 3	Supply chains and network logistics systems – examples of logistics structures. Purchasing and material supply in logistics (application of optimization in EOQ, and dynamic models). Inventory control – inventory control methods and models. Material and distribution requirements planning (MRP, DRP).	4
Cl 4	International transport systems and regulations. Case studies. Modal and intermodal transport systems. Basic transportation decisions in logistics. Transport management in logistics – fleet management, routing and scheduling.	4
Cl 5	Course summary - practical conclusions and assessment.	2
	Total hours	15
TEACHING TOOLS USED		
N1. Lecturing with multimedia - computer presentation. N2. Case studies. N3. Discussions and comparative study. N4. Lists of logistics exercises.		

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	Lecture written <i>Colloquium A</i> – test (100%) with all lectures'

	PEU_U01, PEU_U02	attendance bonus to be organised at the last lecture..
P2	PEU_W01, PEU_W02 PEU_U01, PEU_U02	Exercises class written <i>Colloquium B</i> – logistics tasks exercises to be organised at the last lecture.
F1	PEU_W01, PEU_W02 PEU_U01, PEU_U02	Attendance to all exercises classes (a summary).
F2	PEU_W01, PEU_W02 PEU_U01, PEU_U02	Selected logistics topic 15-minute presentation at exercises class.
F3	PEU_W01, PEU_W02 PEU_U01, PEU_U02	Exercises class activity in logistics problems solving (<i>Lists</i>) and contribution to class discussions.
F4	PEU_W01, PEU_W02 PEU_U01, PEU_U02	Completion of all modelling and calculation exercises (<i>Lists</i>) and submitting a final report.
P (Lecture) =P1 P (Exercises) = 0,25*F1+0,35*(0,25*F2+0,25*F3+0,50*F4)+0,40*P2		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Ciesielski M. (ed.), *Instrumenty zarządzania logistycznego*, PWE Warszawa, 2006 (in Polish).
- [2] Dolgui A., Proth J.-M., *Supply Chain Engineering. Useful Methods & Techniques*, Springer 2010.
- [3] Goetschalckx M., *Supply Chain Engineering*, Springer 2011.
- [4] Pietroń R., *Modelowanie i projektowanie procesów i systemów logistycznych*, Wyd. WSOWL Wrocław, 2015 (in Polish).
- [5] Pietroń R., *Logistics. Exercises*, E-Material for students, WUS&T Wrocław, 2019.
- [6] Pietroń R., *Logistics. Selected issues for lecture*, E-Material for students, WUS&T Wrocław, 2022.

SECONDARY LITERATURE:

- [1] Coyle J.J., Bardi E. J., Langley C.J., *Zarządzanie logistyczne*, PWE Warszawa, 2010.
- [2] Harrison A., van Hoek R., *Logistics Management and Strategy. Competing Through the Supply Chain*, FT Prentice Hall, Pearson Education, 3rd edition, 2008 (2002, 2005).
- [3] Selected papers from logistics journals: *Contemporary Logistics*, *International Journal of Logistics: Research and Application*, *International Journal of Physical Distribution & Logistics Management*, *International Journal of Transport & Logistics*, *Journal of Business Logistics*, *Logistics and Transportation Review*, *Logistics Information Management*, *The International Journal of Logistics Management*, *Gospodarka Materialowa & Logistyka (miesięcznik)*, *Logistyka (dwumiesięcznik)*, *Eurologistics*, *Logistyka w teorii i w praktyce (dwumiesięcznik)*, *Logistyka a jakość (dwumiesięcznik)*

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Roman Pietroń, roman.pietron@pwr.edu.pl

Other teacher:

Grzegorz Chodak, grzegorz.chodak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Makroekonomia****Name of subject in English: Macroeconomics****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8008****Group of courses: NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of classes organized by the University (ZZU)	30	30			
The total number of hours of student workload (CNPS)	100	50			
Form of crediting	Examination	credit with a grade			
For a group of courses final course mark (X)					
Number of points ECTS	4	2			
including the number of points corresponding to the classes of practical (P)		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	1.2			

*niepotrzebne skreślić

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. A course in microeconomics

SUBJECT OBJECTIVES

C1 Knowledge and understanding of the theory of macroeconomic management

C2 Education the ability to understand the correctness of macroeconomic management in the context of economic growth and development.

C3 Education skills identification and analysis of macroeconomic factors in the dimension of content and control in conjunction with the implemented economic policy

SUBJECT LEARNING OUTCOMES

The scope of knowledge:

PEU_W01 He has knowledge of the place of economics in the sciences, and of the substantive and methodological links with other scientific disciplines. It is characterized by the main theories of economics.

PEU_W02 He knows the circumstances and depending on macroeconomic growth and development of the national economy and the world. Knows the basic economic tools and regulations on the national economy, the economies of integration groups globally.

The range of skills:

PEU_U01 Understands and is able to use theoretical knowledge in economics and related disciplines to analyze and interpret problems in macroeconomic management.

PEU_U02 It has the ability to identify, understand and analyze the macroeconomic factors in the context of the policy as part of macroeconomic and business environment.

The scope of social competence:

PEU_K01 Can discuss possible solutions to the practical functioning of the economy at the macroeconomic level, to justify the view presented by analyzing the benefits and risks of particular solutions.

Course content		
Lectures		Number of hours
1	Introduction: grading methods and passing requirements, Flow of money in an economy (market of production factors, goods market, financial market, money market); aggregated demand and supply, market equilibrium	2
2	National accounts: components of national accounts, price deflators	2
3	Market of production factors: production functions, equilibrium wages and rents, income division,	2
4	Goods and financial markets: Determinants of demand for goods (consumption, government expenditures, investments); equilibrium interest rate	4
5	Money market: history of money, role of money, inflation (real values of money, costs of inflation), demand and supply of money, money creation	3
6	International trade: net export, small open economy (international vs. local interest rate), exchange rate, international effects of fiscal policies	3
7	Keynesian cross: expected and realized expenditures; multiplier effect	2
8	IS-LM model: fiscal vs. monetary policies; multiplier effect	4
9	Labor market: measurements of employment and policy analysis	2
10	Business cycle: theories and stylized facts; effects of stabilizing policies	4
11	Globalization and international economic integration: an example of	2

	EU	
	Total hours	30

Classes		Number of hours
Cl 1	Introduction: grading methods and passing requirements, Aggregated demand and supply, market equilibrium	2
Cl 2	National accounts: components of national accounts, price deflators	2
Cl 3	Market of production factors: production functions, equilibrium wages and rents	2
Cl 4	Goods and financial markets: equilibrium interest rate	2
Cl 5	Money market: real values of money, demand and supply of money, money creation	2
Cl 6	International trade: net export, small open economy (international vs. local interest rate), exchange rate	2
Cl 7	Final test	2
	Total hours	15

TEACHING TOOLS USED
Lecture N1. Lecture information N2. Multimedia presentation N3. Lecture problem Classes N4. Solving practical N5. Discussion

EVALUATION OF THE EFFECTS OF EDUCATION ACHIEVEMENTS

Ratings (F - forming (during the semester), P - Summary (at the end of the semester))	Learning outcomes number	Way to evaluate the effect of education achievement
F1	PEU_W01- PEU_W02	Test
F2	PEU_U01- PEU_U02	Practical exercises test
F3	PEU_K01	Participation in the discussion
F4	PEU_W01- PEU_W02	The examination in the form of test
P(lectures) = F4 P (exercises) = $0,4 \cdot F1 + 0,4 \cdot F2 + 0,2 \cdot F3$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] <i>Principles of Macroeconomics</i> by Mankiw, Kneebone, McKenzie, Fifth Canadian edition, Publisher: Nelson. [2] D. Begg, S. Fischer, R. Dornsbuch, <i>Makroekonomics</i> , Mc GRAW-HILL BOOK COMPANY. <u>SECONDARY LITERATURE:</u> [1] R. Milewski (red.), <i>Podstawy ekonomii. Ćwiczenia, zadania, problemy</i> , PWN, Warszawa 2002 i kolejne wydania.
COURSE SUPERVISOR (NAME, ADDRESS E-MAIL) dr Katarzyna Maciejowska, katarzyna.maciejowska@pwr.edu.pl dr Asha Thomas asha.thomas@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Zarządzanie i ochrona własności intelektualnej**Name of subject in English:** Management and protection of intellectual property**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level studies, full-time**Kind of subject:** optional**Subject code:** W08ZZZ-SL8081**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)	25	25			
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)	0.6	0.6			

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites.

SUBJECT OBJECTIVES

C1 Acquainting with the characteristics of the intellectual property category

C2 Acquainting with the knowledge of the importance of intellectual resources in running a business

C3 Acquainting with the basic methods and strategies of securing intellectual property resources in business

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 Knows and understands the basic concepts and principles of industrial property and copyright protection. Has knowledge of the legal conditions for the functioning of the organization.

PEU_W02 Explains the concept of innovation and recognizes the legal conditions of innovation in an organization. Characterizes the essence and forms of entrepreneurship and identifies the premises for its formation and development.

PEU_W03 Knows the basic methods, techniques and tools for designing an innovative solution and securing its legal protection

relating to skills:

PEU_U01 Is able to use normative systems and applies appropriate norms and legal standards indicated to him

PEU_U02 Can use basic methods, techniques and tools for designing an innovative solution and securing its legal protection

relating to social competences:

PEU_K01 Is aware of the need to independently develop their knowledge and professional skills and is able to independently develop this knowledge and improve skills.

PEU_K02 Is prepared to identify and analyze social problems in the workplace and to search for their solutions to them.

PEU_K03 Is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Organizational issues - rules for the organization of the lecture and passing	1
Lec 2	The concept of intellectual property - an overview of the basic categories of intellectual property	2
Lec 3	Subject of intellectual property protection. Sources of rights on intangible assets	2
Lec 4	Protection of intellectual property under current (national) legislation	2
Lec 5	Subject of industrial property law. The content of industrial property law. Instruments for the protection of industrial property in the enterprise. Patent and protection of innovation.	2
Lec 6	Protection of know-how and commercial information in the enterprise	2
Lec 7	Management of intellectual property resources in a company. Copyright management in the enterprise. Copyright turnover - review and characteristics of selected contracts. Transfer of copyrights as part of the business	3
Lec 8	Final test	2
	Total hours	15

Classes		Number of hours
Cl 1	Organizational issues - rules for the organization of the classes and passing	1
Cl 2	Preparation of an innovative solution project and development of a strategy for its commercialization.	2
Cl 3	Preparation of selected types of contracts in the field of trade in intellectual property	2
Cl 4	Non-disclosure agreement (NDA) and its importance in the company's market activity	3
Cl 5	Nondisclosure Agreement (NDA) and business secret	2
Cl 6	Liability for damages and criminal liability for breach of the confidentiality agreement (NDA)	2
Cl 7	Institutional and non-institutional means of securing intellectual resources - synergy effect	2
Cl 8	Final credit - presentation of projects	2
	Total hours	15

TEACHING TOOLS USED
N1. Problem lecture with the use of a multimedia presentation
N2. Group work
N3. Own work

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	Final test evaluation
F2	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of group work
F3	PEU_U01; PEU_U02; PEU_K01; PEU_K02; PEU_K03	Assessment of own work
P (lecture) = F1 P (classes)= 0,5*F2+0,5*F3		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Hart Tina, Intellectual Property, Wyd. Palgrave Macmillan Higher Ed, 2013 [2] Benty Lionel, Intellectual Property Law, Oxford Univeristy Press, 2018. [3] Pila Justine, European Intellectual property Law, Oxford Univeristy Press, 2019.
<u>SECONDARY LITERATURE:</u> [1] Adam D. Moore, “Privacy, Intellectual Property, and Hacking: Evaluating Free Access Arguments,” in Internet Security Hacking, Counterhacking, and Society, Ken Himma Ed. (Jones & Bartlett Publishers, 2007) [2] Deborah E. Bouchoux, Intellectual Property: The Law of Trade Marks, Copyrights, Patents and Trade Secrets, 2, Ed., West Legal Studies, Canada, 2000
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Aldona Dereń, aldona.deren@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie potencjałem własnym****Name of subject in English: Management of own potential****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level , full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL8065S****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 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)					1.2

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites

- C1. To acquaint students with the basic issues related to personal development and career planning;
 C2 To acquaint students with ways of building their own potential and skills that should be developed in specific work environments;
 C3. To acquaint students with the importance of a personal brand in achieving professional success.
 C4. Indication of the possibilities of using knowledge in the field of management in the process of achieving professional goals.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 has systematic knowledge of the factors of personal and professional development, personal brand, image

PEU_W02 knows the basic types of career paths as well as the methods and techniques supporting its development and methods and tools for motivating oneself and others to act

relating to skills:

PEU_U01 is able to carry out a self-diagnosis of strengths and weaknesses and make an assessment of his own development

PEU_U02 is able to formulate a strategy to achieve personal goals and develop a development plan

PEU_U03 is able to use various techniques of creativity to generate ideas for a solution problem

relating to social competences:

PEU_K01 is aware of the importance of relations with the environment in the process of personal development and consciously and purposeful shapes them, behaving in a professional and ethical manner.

PEU_K02 is ready to prioritize and stimulate activity and creativity within own and team work

PROGRAM CONTENT		
Seminar		Number of hours
Sem 1	Discussion of the rules of the organization of work at the seminar and the rules of passing. Introduction - conditioning the process of managing oneself and one's own potential.	2
Sem 2	Contemporary labor market and managing oneself and one's own potential. Work styles and your own potential.	2
Sem 3	Identifying your own strengths and weaknesses. Self-motivation.	2
Sem 4	Values and goals. Formulating and implementing personal goals. Personal development strategies.	2
Sem 5	Individual personal development plan. Control and measurement of the effects of activities.	2
Sem 6	Models of career development and career paths.	2
Sem 7	The importance of coaching and mentoring as forms of supporting personal development.	2
Sem 8	The value of time. Time budget. Efficient use of time. Work-personal life balance.	2
Sem 9	Shaping professional competences. Decision making methods and attitude towards risk.	2
Sem 10	Creativity techniques, change management in the context of managing one's own potential.	2
Sem 11	Planning of professional development within the corporation.	2
Sem 12	Individual entrepreneurship as a career path.	2
Sem 13	Leadership. Sources of advantage over competitors. Influencing others.	2
Sem 14	Relational capital and its formation in the process of self-management. Activity in social media - goals and effects.	2
Sem 15	Building a personal brand. Shaping your own image.	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 number	Way of evaluating learning outcomes achievement
F1	PEU_W01, PEU_W02	Measurement of activity through attendance

F2	PEU_W01,PEU_W02, PEU_U03, PEU_K02	Presentation preparation measurement
F3	PEU_W01,PEU_W02 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
$P = 0,25F1 + 0,25F2 + 0,25F3 + 0,25F4$		

PRIMARY AND SECONDARY LITERATURE	
<u>PRIMARY LITERATURE:</u>	
[1] Buckingham M., StandOut 2.0. Assessment from the Leader of the Strengths Revolution, Harvard Business Review Press 2015. [2] Dweck C., Mindset. How You Can Fulfil Your Potential, Robinson Publishing, London 2020 [3] Mirza, F., Agostinho, S., Tindall-Ford, S., Paas, F., Chandler, P., Self-management of cognitive load: Potential and challenges. In S. Tindall-Ford, S. Agostinho J. S. (Eds.), Advances in Cognitive Load Theory: Rethinking Teaching United Kingdom: Routledge, 2000	
<u>SECONDARY LITERATURE:</u>	
[1] Cialdini R., Influence: Science and Practice, Allyn & Bacon 2008 [2] Duhigg Ch., The Power of Habit: Why We Do What We Do in Life and Business?, Random House Publishing Group, London 2014	
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)	
Dr Jagoda Mrzygłocka-Chojnacka, jagoda.mrzyglocka-chojnacka@pwr.edu.pl	

*delete if not necessary

FACULTY OF MANAGEMENT**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): Organizational Management****Profile: Academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8039L****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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)			1.2		

*delete as applicable

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: Improving the ability to develop simple computer systems (MS Excel worksheets) supporting the process of working out decisions in a company.
- C2: Deepening the ability to use the developed computer system in making prognosis on the economic and financial output of a simulated company.
- C3: Improving abilities to make use of the developed 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.
- C5: Preparation for working in a decision-making team.

SUBJECT LEARNING OUTCOMES

relating to knowledge

PEU_W01: Student is able to identify factors affecting the effectiveness of operations in key functional areas of the business/company.

relating to skills:

PEU_U01: Student is able to develop a simple computer system (DSS_G) supporting the process of working out decisions in a simulated company, and encompassing selected functional areas of that company.

PEU_U02: Student is able to use the developed system DSS_G in preparing prognosis of the economic and financial situation of a simulated company as well as to identify the main reasons for the discrepancies between these prognosis and the real situation of that company.

PEU_U03: Student is able to make an effective use of the system DSS_G in the management of the simulated company.

PEU_U04: Student is able to identify (analyze) the main reasons for the differences in financial and economic outcomes of competing companies acting on the same market.

relating to social competences:

PEU_K01: Student is able to think and act in an entrepreneurial manner.

PEU_K02: Students is able to function in various roles in decision-making processes in the company.

PROGRAMME CONTENT

Form of classes - laboratory		Number of hours
Lab 1	Discussion of the course completion criteria and the main work stages. Organizational issues. 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: <i>Work in Process</i> ; <i>Finished Products</i> ; <i>External Warehouses</i> ; <i>Natural Environment</i> .	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</i> ; <i>Credits</i> ; <i>Cash Flow</i> . Discussion of the requirements to be met during the <i>Test Game</i> . 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 main game.	2
Lab 7	Running the <i>Main Game</i> .	2
Lab 8	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 9	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 10	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 11	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 12	Running the <i>Main Game</i> (continuation). Decision making process in the company.	2
Lab 13	Discussion of the main results achieved by the teams in the <i>Main Game</i> (teaching person). Presentation of the <i>Final Reports</i> prepared by teams (students).	2
Lab 14	Presentation of the <i>Final Reports</i> prepared by teams (continuation).	2
Lab 15	Presentation of the <i>Final Reports</i> prepared by teams (continuation). Course	2

	summary.	
	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 – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_U01	Answering questions; Test; Short tests; Results of the <i>Test Game</i>
F2	PEU_U02 PEU_W01	Evaluation of the prognosis prepared for selected months with the help of the system DSS_G; Discussions
F3	PEU_U03 PEU_K01 PEU_K02	Evaluation of the results achieved by teams in the <i>Main Game</i>
F4	PEU_U04	Evaluation of the presentation of the Final Report
$P = 0.2 \cdot F1 + 0.1 \cdot F2 + 0.4 \cdot F3 + 0.3 \cdot F4$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Rzońca W., Business Game *COMPANY* - user's manual, appendices and supplementary materials (eportal.pwr.edu.pl)
- [2] Jones J., Moven M., Hansen D., Heitger D., Rich J., Financial and Managerial Accounting: The Cornerstones of Business Decisions, South-Western Cengage Learning, 2012 (chosen parts)
- [3] Drury C., Management Accounting for Business, Cengage Learning EMEA 2009 (chosen parts)

SECONDARY LITERATURE:

-

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Mariusz Mazurkiewicz mariusz.mazurkiewicz@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: STRUKTURY RYNKU I ICH REGULACJE****Name of subject in English: Market Structure And Their Regulations****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8072****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)	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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	0.6			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Student knows basic definitions, economic laws and relations in microeconomics.
2. Student knows basic market structures and their characteristics and can identify them.

SUBJECT OBJECTIVES

C1 – The objective of the subject is presenting solid (reliable) backgrounds to understand problem related to decisions making by firms at different competitive markets.

C2 - The objective of the subject is systematic description of action and presenting connections and relations between market structure and market regulation made by government or EU.

C3 – The objective of the subject is to get known definitions connected with microeconomics, regulations and decision making in foreign language, and possessing ability of using correct words during problematic discussion.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU W1 – Student knows and can explain basic definitions, economic laws and relations in micro and macroeconomics. Student knows economic and law regulations related to national economy, economy of European Union and global economy.

PEU W2 – Student knows regulation theories in context of different government functions in economy.

PEU W3 – Student knows assumptions and causes, different tools and effects of economics and law regulations at microeconomics and macroeconomics level, in relation to particular markets and firms.

relating to skills:

PEU U1 – Student can define and analyze effects of incoming economics and law regulations at national and international level for particular organizations, markets and integration groups, such as EU.

PEU U2 – Student can formulate solutions of typical management problems, in the context of different market structures

PEU_U3 – Student can use polish and international sources of information. Can use the information to expand the knowledge related to social sciences and management.

PEU_U4 – Student understand different sources of information about the social situation and management trends. It can express her/his opinion (in oral and written form), participate in a discussion in an international environment.

relating to social competences:

PEU K1 – Student is aware of a need of expanding the knowledge and skills in the management. It can do it independently.

PEK_K2 – Student can cooperate in a group. Can organize a work of a small group.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Introduction: grading methods and passing requirements, examples of different market structures and their effects on decision process	1
Lec 2	Costs of production: cost curve, average costs, marginal costs, entry costs, costs in the short and the long run	2
Lec 3	Decisions about market entry: income and profits, discounting future profits, temporal and inter-temporal decision	2
Lec 4	Competitive market: market structure, price setting, company decisions	2
Lec 5	Monopoly: market structure, price setting, company decisions, examples	2
Lec 6	Oligopoly: basics of the game theory, market structure, price setting, company decisions, examples	5
Lec 7	Monopolistic competition: market structure, price setting, company decisions, examples	4
Lec 8	Measurements of a market concentration	2
Lec 9	Regulations: introduction; government policy for fusion of companies: objectives and rules of antitrust policy, interpretation of antitrust policy, the processes taking place in Poland and their characteristics, examples of antitrust government policy	2
Lec 10	Partial Test	2
Lec 11	Examples of regulations: fiscal and money Policy and market structure change, infrastructural policy, regional policy	2

Lec 12	Examples of regulated markets: electricity market	2
Lec 13	Final test	2
	Total hours	30
Classes		Number of hours
Cl 1	Costs and profits in decision process	1
Cl 2	Competitive market	2
Cl 3	Monopoly	2
Cl 4	Oligopoly	3
Cl 5	Monopolistic competition	3
Cl 6	Case study	4
	Total hours	15
TEACHING TOOLS USED		
Lecture: N1 – information lecture, N2 – multimedia presentation, N3 – problematic lecture. Class: N4 – analysis of selected problems, problematic discussion,		

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_W1-PEU_W3,	partial test
F2	PEU_W1-PEU_W3	final test
F3	PEU_U1-PEU_U4 PEU_K1-PEU_K2	activity during classes, taking part in problematic discussion
F4-F8	PEU_W1,-PEU_W2	Short 10 minutes tests during the classes
Lecture: $P = 0,5 \cdot F1 + 0,5 \cdot F2$ Class: $P = 0,8 \cdot (F4 + F5 + F6 + F7 + F8) + 0,2 \cdot F3$		
PRIMARY AND SECONDARY LITERATURE		
PRIMARY LITERATURE:		
[1] <i>Principles of Macroeconomics</i> by Mankiw, Kneebone, McKenzie, Fifth Canadian edition, Publisher: Nelson. [2] Trefor Jones, <i>Business Economics and Managerial Decision Making</i> , John Wiley&Sons, 2004 [3] Webster Thomas J., <i>Managerial economics: theory and practice</i> , Academic Press, Amsterdam, 2003		
SECONDARY LITERATURE:		
[1] David Begg, Stanley Fischer, Rudiger Dornbusch, <i>Economics</i> , McGraw-Hill, London, 1994		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Katarzyna Maciejowska, katarzyna.maciejowska@pwr.edu.pl dr inż. Joanna Kott joanna.kott@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Marketing w społeczeństwie informacyjnym**Name of subject in English:** Marketing in the information society**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management (OM)**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8014**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)	100	50			
Form of crediting	Examination	Crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	4	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)	1.2	1.2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1. Introducing to basic marketing concepts, their evolution and present challenges, especially in regard of digital media.

C2. Provide an overview of marketing strategies in the social, technological and international context.

C3. Developing conceptual and analytical marketing skills necessary for modern marketers.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU_W01 – Understand how the basic principles of marketing are influenced by a variety of social, technological, cultural and economic issues.

PEU_W02 – Understand the basic principles, objectives, and problems in digital and international marketing channels.

Relating to skills:

PEU_U01 – Be able to plan and develop marketing activates using up-to-date references and modern methods of communication.

PEU_U02 – Be able to coordinate marketing activities.

Relating to social competences:

PEU_K01 – Be able to professionally discuss modern issues in marketing and digital media.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Introduction and crediting rules	2
Lec 2	Traditional marketing-mix	2
Lec 3	Information society and its influence on marketing strategies	2
Lec 4	Evolution of the new type of customers (prosumers)	2
Lec 5	Impact of the Internet on marketing activities	2
Lec 6	Products and customers	2
Lec 7	Prices and costs	2
Lec 8	Promotion and communication	2
Lec 9	Distribution and convenience	2
Lec 10	Personnel and competence	2
Lec 11	Process and capability	2
Lec 12	Physical environment and cultural context	2
Lec 13	Multinational and intercultural communication	2
Lec 14	New forms of marketing activities in virtual and real world	2
Lec 15	Lecture summary	2
	Total hours	30
Classes		Number of hours
Cl 1	Wprowadzenie do zajęć i zasady zaliczenia	2
Cl 2	Key thinkers in marketing	2
Cl 3	Modern marketing	2
Cl 4	Information society	2
Cl 5	Prosumerism	2
Cl 6	New products and services	2
Cl 7	Alternative pricing strategies	2
Cl 8	New forms of distribution	2
Cl 9	Push vs. Pull	2
Cl 10	Advertising	2
Cl 11	SEM and SEO	2
Cl 12	Social media marketing and Public Relations	2
Cl 13	International issues	2
Cl 14	Intercultural issues	2
Cl 15	Future trends in marketing	2
	Total hours	30

TEACHING TOOLS USED
N1. Informative lectures N2. Discussion-based lectures N3. Multimedia presentation N4. Class discussion N5. Oral presentation N6. Case studies

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_K01	Exam
F2	PEU_U01 PEU_U02 PEU_K01	Oral presentation
F3	PEU_U01 PEU_U02 PEU_K01	Report
P (classes) = 0,5*F2 + 0,5*F3 P (lecture) = F1		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Adam Dzidowski, Marketing in the information society, ZPR PWr., 2020		
<u>SECONDARY LITERATURE:</u>		
[1] Dave Chaffey, Fiona Ellis-Chadwick, Digital Marketing, Pearson, 2022		
[2] Judy Strauss, Raymond Frost, E-Marketing: International Version, Pearson, 2014		
<u>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</u>		
Adam Dzidowski, adam.dzidowski@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie marketingowe****Name of subject in English: Marketing Management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8075****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)	25			50	
Form of crediting	crediting with grade			crediting with grade	
For group of courses mark (X) final course	X				
Number of ECTS points	1			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)	0.6			1.2	

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essentials of Management.
2. Essentials of Marketing.
3. Essentials of Economics.

SUBJECT OBJECTIVES**Passing fundamental knowledge (including application aspects) about:**

C1. Marketing concept, different orientations towards marketing activities and the nature and basic problems of marketing management,

C2. Marketing planning process, in particular in the scope of analysis and methods used in this process and the reasons for deciding on marketing: objectives, strategies, tactics, budget and operational activities.

C3. The creation of organizational solutions and control in the marketing area of business management.

To acquire fundamental skills to:

C4. Analysis of the degree of the marketing concept implementation in some dimensions, and development of proposals relevant to marketing management,

C5. Develop or make relevant changes in the project of analyzed marketing plan and to evaluate its correctness.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – knows and understands the marketing concept, different orientations towards marketing activities and the nature of marketing management.

PEU_W02 – knows the basics of customer relationships management strategies.

PEU_W03 – knows and understands, at a basic level, the marketing planning process, in particular, taking into account the specificity of the Internet and social media.

PEU_W04 – has a basic knowledge of how to create organization and control in the marketing area of business management.

relating to skills:

PEU_U01 – can analyze, at a basic level, the degree of the marketing concept implementation in some aspects, and develop proposals relevant to marketing management.

PEU_U02 – can - at a basic level - develop marketing plan covering the selected scope of the company's marketing activities or make adequate changes in the marketing plan and evaluate its correctness, in the lights of the fundamental requirements addressed to marketing plans.

relating to knowledge:

PEU_K01 - is aware of the need to develop knowledge and skills in management, in particular - in the scope of marketing planning and marketing approach to business management.

PEU_K02 – is aware that the contemporary business management manager job involves constant identifying, analyzing, prioritizing and solving management problems.

PEU_K03 - is prepared to take responsibility for the tasks assigned and co-workers, not only in essential but also in ethical dimension.

PEU_K04 – expresses a willingness to teamwork.

PEU_K05 - shows courage in communicating and defending own views, while taking into account and respecting the views of other people.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing management	1
Lec 2	Marketing concept in managing a company	2
Lec 3	Getting customer loyalty and satisfaction. Building relationships.	2
Lec 4	Marketing planning process	2
Lec 5	Marketing strategies on the Internet.	2
Lec 6	Marketing organization and control in the marketing area of managing a company.	2
Lec 7	Final test	2
Lec 8	Marketing management of a contemporary enterprise. Retake of the final test.	2
	Total hours	15

Project		Number of hours
Proj1- Proj3	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing management.	6
Proj4- Proj6	Strategies and challenges in marketing management.	6
Proj7- Proj8	Marketing planning process.	4
Proj9- Proj11	Analysis and proposals of the adequate changes in the exemplary marketing plan.	6
Proj12- Proj13	Development and presentation of the marketing plan project – part one.	4
Proj14- Proj15	Development and presentation of the marketing plan project – part two.	4
Total hours		30

TEACHING TOOLS USED
N1. Traditional lecture with the use of a multimedia presentation N2. Questions asked to the audience during the lecture N3. Case studies N4. Questions and tasks asked to students during classes N5. Self or team analysis and evaluation of assigned aspects of enterprise marketing management N6. Own or team work: preparation for classes and preparation for the final test

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming during semester), P – concluding (at semester end)	Learning outcomes code	Way of evaluating learning outcomes achievement
F1	PEU_W01 – W04 PEU_U01 – U02	Assessment of solutions to given tasks (short tests included) [project]
F2	PEU_W01 – W04 PEU_U01 – U02 PEU_K01 – K05	Activity and engagement during the semester [project]
F3	PEU_W01 – W04	Assessment of the final test [lecture]
P1 [Lecture] = F3 P2 [Project] = 0.3*F2 + 0.7*F1		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Kotler Ph., Keller K.L., Marketing Management, Pearson Education Limited, Harlow, England, 2016. [2] Turner J., Shah R., How to Make Money with Social Media: An Insider's Guide to Using New and Emerging Media to Grow Your Business, Second Edition, Pearson FT Press 2015.

SECONDARY LITERATURE:

- [1] Almquist E., Senior J., Bloch N., The elements of value, Harvard Business Review, 2016, vol. 94, No. 9, pp. 46-53.
- [2] Brinker S., McLellan L., The Rise of the Chief Marketing Technologist, Harvard Business Review, 2014, vol. 92, No. 7/8, pp. 82-85.
- [3] Ciurla M., Nowak M.W., The marketing orientation of Polish SMEs [in:] Marketing strategies for Central and Eastern Europe, Ed. by Arnold S., Chadraba P., Springer R., Aldershot, Ashgate 2001.
- [4] Greyser S. A., Urde M., What Does Your Corporate Brand Stand For?, Harvard Business Review, 2019, vol. 97(1), pp. 80–88.
- [5] Kotler Ph., et al. Marketing Management: First European Edition, Harlow, England, Pearson/Prentice Hall, New York 2009.
- [6] Morewedge, C. K., When we don't own the things we use, will we still love them?, MIT Sloan Management Review, 2022, vol. 63(2), pp. 16-18.
- [7] Reed J., Get up to speed with online marketing: how to use websites, blogs, social networking and more to promote your business, Pearson, Harlow 2013.
- [8] Saurama A., Terho H., Keränen J., Three Ways to Sell Value in B2B Markets, MIT Sloan Management Review, 2021, vol.63(1), pp.64-67,
- [9] Sorger S., Marketing Planning, Prentice Hall 2012.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Milleniusz W. Nowak, Ph.D., Milleniusz.Nowak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Badania marketingowe****Name of subject in English: Marketing Research****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8084****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)	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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	1.2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essentials of Marketing.

SUBJECT OBJECTIVES**Passing fundamental knowledge (including application aspects) about:**

C1. managing marketing research process and solving common problems in this area (including: marketing research on the Internet)

C2. formulating research problems and hypotheses, research planning, selecting and applying data analysis methods, conducting research and developing a research report

To acquire fundamental skills to:

C3. design and conduct marketing research using basic quantitative and qualitative methods (including: in the internet environment) - for the purpose of making appropriate marketing decisions

C4. use appropriate sources and methods for collecting and analyzing data in marketing research projects.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 – knows a basic notions, concepts and methods of marketing research and understands its role in managing a business.

PEU_W02 – has a basic knowledge of marketing research process and understands requirements, problems and the specificity of marketer - researcher cooperation.

relating to skills:

PEU_U01 – can design and conduct - at a basic level – marketing research projects. PEU_U02 – can apply – at a basic level - fundamental marketing research methods.

relating to social competences:

PEU_K01 - is aware of the need to develop knowledge and skills in management, in particular - in the scope of marketing research to support marketing decision making.

PEU_K02 - is prepared to take responsibility for the tasks assigned and co-workers, not only in essential but also in ethical dimension.

PEU_K03 – expresses a willingness to teamwork.

PEU_K04 - shows courage in communicating and defending own views.

PEU_K05 - shows commitment and creativity in solving problems, reaching out to sources of information and overcoming obstacles to achieve the objectives.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1-2	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing research.	4
Lec 3	Research problem and an approach to solve it.	2
Lec 4	Secondary data.	2
Lec 5	Qualitative research. Focus groups.	2
Lec 6	Research design: survey and observation. Introduction to questionnaires & scales. Experimentation and causal research.	2
Lec 7	Research design: measurement and scaling.	2
Lec 8	Research design: questionnaires design.	2
Lec 9	Research design: sampling.	2
Lec 10	Data collection and preparation in marketing research.	2
Lec 11-Lec 12	Data analysis.	4
Lec 13	Report of the marketing research project - preparation and presentation.	2
Lec 14	Final test.	2
Lec 15	Marketing research: concept, process and challenges - summary. Retake of the final test.	2
Total hours		30

Classes		Number of hours
Cl 1-Cl 3	Organizational issues - discussion of the structure, principles and organization of the course. Introduction to marketing research.	6
Cl 4-Cl 5	Research problem and an approach to solve it.	4
Cl 6	Secondary and syndicated data.	2
Cl 7	Qualitative research. Focus groups.	2
Cl 8	Research design: introduction.	2
Cl 9-Cl 11	Research design.	6
Cl 12-Cl 14	Data collection and analysis.	6
Cl 15	Reporting.	2
	Total hours	30

TEACHING TOOLS USED
N1. Traditional lecture with the use of a multimedia presentation N2. Questions asked to the audience during the lecture N3. Case studies N4. Questions and tasks asked to students during classes N5. Self or team analysis and evaluation of assigned aspects of enterprise marketing management N6. Own or team work: preparation for classes and preparation for the final test

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS 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	Assessment of solutions to given tasks (short tests included)
F2	PEU_U01 PEU_U02 PEU_K01 PEU_K02 PEU_K03 PEU_K04 PEU_K05	Activity and engagement during the semester
F3	PEU_W01 PEU_W02	Assessment of solutions to given final test issues
P [Classes] = 0,3*F2 + 0,7*F1 P [Lecture] = F3		

PRIMARY AND SECONDARY LITERATURE

<u>PRIMARY LITERATURE:</u>

- | |
|---|
| <p>[1] Malhotra N. K., Essentials of Marketing Research. Global Edition, Pearson Education Ltd., Boston, London 2015.</p> <p>[2] Malhotra N. K., Student Resource Manual with Technology Manual. Essentials of Marketing Research: A Hands-On Orientation. First Edition, Companion Website for Essentials of Marketing Research, Global Edition, 2015.</p> |
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<u>SECONDARY LITERATURE:</u>

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| <p>[1] Anderson Ch., How to give a killer presentation, Harvard Business Review, June, 2013, 91, 6, pp.121-125.</p> <p>[2] Govindarajan V., Venkatraman N.V., The Next Great Digital Advantage, Harvard Business Review, 2022, May-June, p. 1.</p> <p>[3] Janssens W., Wijnen K., De Pelsmacker P., Van Kenhove P., Marketing research with SPSS, Prentice Hall/Financial Times, London 2008.</p> <p>[4] Kaden R.J., Guerrilla marketing research: marketing research techniques that can help any business make more money, Kogan Page, London, Philadelphia 2006.</p> <p>[5] Kotler Ph., et al., Marketing Management. First European Edition, Harlow, England, Pearson/Prentice Hall, New York 2009.</p> <p>[6] Stocchi L., Pourazad N., Michaelidou N., Tanusondjaja A., Harrigan P., Marketing research on Mobile apps: past, present and future, Journal of the Academy of Marketing Science, 2022, No. 50(2), pp. 195–225.</p> <p>[7] The Power of Positive Surveying, Harvard Business Review, 2017, January–February, pp.22–24.</p> |
|--|

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Milleniusz W. Nowak, Ph.D., <u>Milleniusz.Nowak@pwr.edu.pl</u>

FACULTY OF MANAGEMENT /Department of Operations Research and Business Intelligence**SUBJECT CARD****Name of subject in Polish: Mathematical Economics****Name of subject in English: Mathematical Economics****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8015****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)	120	60			
Form of crediting	Examination	crediting with grade			
For group of courses mark final course with (X)					
Number of ECTS points	4	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	0.5			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Mathematical analysis and statistics.

SUBJECT OBJECTIVES

C1 Knowledge of mathematical methods and tools used in economics in the following areas

C1.1 The theory of the change in value of money over time

C1.2 The future expected lifetime of an individual and models of life insurance

C1.3 Preferences, utility and expected utility

C1.4 Theory of production and demand

C1.5 Game theory

C2 The ability to interpret and analyze the following subject areas

C2.1 The theory of the change in value of money over time

C2.2 The future expected lifetime of an individual and models of life insurance

C2.3 Preferences, utility and expected utility

C2.4 Theory of production and demand

C2.5 Game theory

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 – broad knowledge of the application of mathematics to economics

PEU_W02 knowledge and application of methods of discounting the nominal value of money over time

PEU_W03 knowledge of the factors affecting the price of insurance premiums and ability to calculate simple life insurance premiums

PEU_W04 ability to apply mathematical theories relations to utility theory, decision making under uncertainty, theory of demand and supply

PEU_W05 understanding of the mathematical theory of conflict and cooperation (game theory) and application to the economic world

relating to skills:

PEU_U01 ability to use formal models and assess offers from financial institutions in the fields of investments, loans and mortgages

PEU_U02 ability to calculate the appropriate price of life insurance premiums based on an appropriate set of assumptions

PEU_U03 ability to use utility theory and decision theory to construct models of choice between a discrete set of options

PEU_U04 – can formulate decision problems, such as cost-benefit analysis, choice under uncertainty and choice under competition (game theory) and solve them

relating to social competences:

PEU_K01 ability to critically assess solutions to economic problems in everyday life and business and justify such assessments via the use of mathematical tools

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Introduction to the class and discussion of assessment rules. Problem of optimal ordering – newsvendor's principle	4
Lec 2	Insurance premiums and rules for calculating premiums	4
Lec 3	Individual and collective risk models	4
Lec 4	Classical risk process and ruin probability	4
Lec 5	Markovitz theory of portfolio	
Lec 6	Capital asset pricing model	4
Lec 7	Discrete financial models – derivative pricing	4
Lec 8	Final test	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction to class and discussion of grading policies. Problem of optimal ordering – newsvendor's principle	1
Cl 2	Insurance premiums and rules for calculating premiums	2
Cl 3	Individual and collective risk models	2
Cl 4	Classical risk process and ruin probability	2

Cl 5	Markovitz theory of portfolio	2
Cl 6	Capital asset pricing model	2
Cl 7	Discrete financial models – derivative pricing	2
Cl 8	Final test	2
	Total hours	15

TEACHING TOOLS USED

- N1. Slide Presentations
N2. Step-by-step solutions of examples
N3. Set of exercises to be solved during the problems classes
N4. Set of exercises for individual 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_W05	Exam
F2	PEU_U01 – PEU_U04	Final test
P(L) = F1 P(C) = F2		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Wainwright K., Chiang A. (2005) Fundamental Methods of Mathematical Economics. McGraw-Hill/Irwin
[2] Kellison S. G. (2008) The Theory of Interest, McGraw-Hill/Irwin
[3] Durlauf S. N., Blume L. E. (2010) Game Theory. Palgrave MacMillan, Basingstoke.
[4] Werner F., Sotskov Y. (2006) Mathematics of Economics and Business, Routledge

SECONDARY LITERATURE:

- [1] Bowers N. L, Gerber H. U., Hickman J. C., Jones D. A., Nesbitt C.J. (1997), Actuarial Mathematics, Society of Actuaries.
[2] Taha H. (2017), Operations Research: An Introduction, Pearson

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Zbigniew Michna, zbigniew.michna@pwr.edu.pl
Elżbieta Jasińska elzbieta.jasinska@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Matematyka****Name of subject in English: Mathematics 1 for Economists****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: first level, full-time****Type of subject: obligatory****Subject code: W13ZZZ-SL8001G****Group of courses: YES**

	Lecture	Exercise class	Laboratory	Project	Seminar
Number of hours of organized University classes (ZZU)	30	30			
Number of hours of total student workload (CNPS)	270				
Form of crediting	Examination				
For a group of courses mark the final course (X)	X				
Number of ECTS points	9				
including number of ECTS points for practical (P) classes	4				
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	7				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. High school graduation at basic level.

SUBJECT OBJECTIVES

- C1. Acquiring basic knowledge related to solving equations and inequalities involving elementary functions such as polynomials and rational functions, exponential and logarithmic functions.
- C2. Study of the basic concepts of algebra with the purpose of solving systems of linear equations.
- C3. Learning the basic concepts, theorems, methods and applications of calculus of functions of one and two variables .
- C4. Constructing mathematical models with the aim of applications in economy and technology.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge, the student:

PEU_W01 possesses basic knowledge essential for solving equations and inequalities involving absolute value, polynomials, and rational, exponential and logarithmic functions

PEU_W02 possesses elementary knowledge essential for solving systems of linear equations

PEU_W03 knows basic properties of elementary functions and basics of differential calculus and integral calculus of function of one variable

PEU_W04 possesses basic knowledge of calculus of functions of two variables.

Relating to skills, the student:

PEU_U01 is capable of solving equations and inequalities involving absolute value, polynomials, and rational, exponential and logarithmic functions

PEU_U02 is capable of solving systems of linear equations

PEU_U03 can calculate limits of sequences and functions, can determine asymptotes of functions, can calculate derivatives of functions and interpret calculation results, can calculate and interpret indefinite and definite integrals

PEU_U04 is capable of finding extrema of functions of two variables.

Relating to social competences, the student:

PEU_K01 can, without assistance, search for necessary information in the literature

PEU_K02 understands the need for systematic and independent work on mastery of course material.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Absolute value; equations and inequalities. Geometric interpretation. Economy based examples.	2
Lec 2	Polynomials and rational functions; equations and inequalities. Graphical interpretation.	2
Lec 3	Exponential and logarithmic functions. Natural logarithm. Graphs of functions. Simplifying algebraic expressions involving exponentials and logarithms. Economy based examples.	2
Lec 4	Systems of linear equations. Gaussian elimination method.	4
Lec 5	Limits of sequences, basic properties of limits. Applications of a geometric sequence and arithmetic sequence in economy.	2
Lec 6	Limit of a function. Continuity. Asymptotes. Examples of applications in economy.	2
Lec 7	The derivative of a function; geometric and physical interpretation. Rules of differentiation. Chain rule. Higher order derivatives. Applications in economy.	2
Lec 8	Intervals of monotonicity of a function. Local and global extrema. Intervals of convexity and concavity. Study of graphs of functions.	4

Lec 9	Indefinite integral, definition and basic properties. Indefinite integral of certain classes of functions, including polynomials and exponential functions. Integration by parts and by substitution.	2
Lec 10	Definite integral; definition and basic properties. Geometric interpretation. Connection between definite and indefinite integral.	2
Lec 11	Applications of integral calculus. Area of a flat region.	2
Lec 12	Functions of two or more variables. Partial derivatives; geometrical interpretation. Partial derivatives of composite functions. Local extrema of functions of two variables. Applications in economy.	4
	Total hours	30
Classes		Number of hours
Ex 1	Absolute value: solving equations and inequalities.	2
Ex 2	Decomposition of a polynomial into irreducible components. Solving polynomial and rational (functions) equations and inequalities.	2
Ex 3	Equations and inequalities with exponential and logarithmic functions.	2
Ex 4	Finding inverse matrices. Solving systems of linear equations using matricial methods.	4
Ex 5	Computing proper and improper limits of sequences.	2
Ex 6	Computing proper and improper limits of functions. Asymptotes. Verifying continuity of functions.	2
Ex 7	Computing derivatives of various functions using rules of differentiation. Tangent line to the graph.	2
Ex 8	Determining local and global extrema of a function. Examination of a function.	4
Ex 9	Indefinite integral of elementary functions, including polynomials and exponentials. Integration by parts and by substitution.	2
Ex 10	Calculating definite integrals. Area of a flat region as an application of definite integral.	2
Ex 11	Calculating partial derivatives. Finding local and global extrema of functions of two variables.	2
Ex 12	Tests	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture – traditional method N2. Exercise class – traditional method (problems sessions and discussion) N3. Office hours N4. Student's individual work – preparation for the classes		

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation F – forming (during semester), P – final (end of semester)	Educational effect number	Way of evaluating educational effect achievement
F - Ex	PEU_U01-PEU_U04 PEU_K01-PEU_K02	oral presentations, quizzes, tests
F - Lec	PEU_W01-PEU_W04 PEU_K02	Exam
P	PEU_U01-PEU_U04 PEU_W01-PEU_W04 PEU_K01-PEU_K02	Rules set by the lecturer

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] F. Ayres, E. Mendelson: Calculus, 5th edition, McGraw Hill, 2009.
- [2] T. Bednarski, Elementy matematyki w naukach ekonomicznych, Oficyna Ekonomiczna, Kraków 2004.
- [3] J. Banaś, Podstawy matematyki dla ekonomistów, WNT, Warszawa 2005.
- [4] M. Zakrzewski, Markowe wykłady z matematyki. Analiza. Oficyna Wydawnicza GiS, Wrocław 2013.
- [5] T. Jurlewicz, Z. Skoczylas, Algebra liniowa 1. Definicje, twierdzenia, wzory, Oficyna Wydawnicza GiS, Wrocław 2007.
- [6] T. Jurlewicz, Z. Skoczylas, Algebra liniowa 1. Przykłady i zadania, Oficyna Wydawnicza GiS, Wrocław 2007.
- [7] M. Gewert, Z. Skoczylas, Analiza matematyczna 1. Definicje, twierdzenia, wzory, Oficyna Wydawnicza GiS, Wrocław 2007.
- [8] M. Gewert, Z. Skoczylas, Analiza matematyczna 1. Przykłady i zadania, Oficyna Wydawnicza GiS, Wrocław 2007.
- [9] Mike Rosser, Basic mathematics for economists, Second edition, Routledge, 2003.

SECONDARY LITERATURE:

- [1] A. C. Chiang, Podstawy ekonomii matematycznej, PWE, Warszawa 1994.
- [2] M. Dobija, W. Smaga, Podstawy matematyki finansowej i ubezpieczeniowej, PWN, Warszawa-Kraków 1995.
- [3] A. Ostoja-Ostaszewski, Matematyka w ekonomii-modele i metody 1. Elementarny rachunek różniczkowy, PWN, Warszawa 1996.
- [4] A. Ostoja-Ostaszewski, Matematyka w ekonomii-modele i metody 1. Algebra elementarna, PWN, Warszawa 1996

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr hab. Maciej Wilczyński (Maciej.Wilczynski@pwr.edu.pl)
dr hab. Jacek Serafin (serafin@pwr.edu.pl)
Wydziałowa komisja programowa ds. kursów ogólnouczeniowych

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Metody Modelowania systemów informatycznych zarządzania****Name of subject in English: Methods of management information systems modeling****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8077****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)	25		25		
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)	0.6		0.6		

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. The knowledge of the information system of the organization
2. The basic knowledge and skills of the computer using.

SUBJECT OBJECTIVES

C1 Getting knowledge on the management information systems models in various functional areas of the organization.

C2 Getting the skills to apply the right tools for computer-aided modeling of management information systems.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 - student has ordered knowledge of the methods and techniques of building models of systems management functions with the structural approach.

PEU_W02 - student has ordered knowledge of the methods and techniques of building data models of information systems management at the structural approach.

relating to skills:

PEU_U01 - student can create a models of simple computer systems to support management solutions to common problems and issues in the various functional areas of the

organization.
 PEU_U02 - student can use software tools to support the design of computer systems models.
 relating to social competences:

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Organizational information, rules for passing the lecture. Introduction.	1 1
Lec 2	Business function modeling -FHD.	2
Lec 3	Function dependency and events – FDD.	2
Lec 4	Basic rules and definitions for entities, relationships, attributes. Multiple and recursive relationship, generalization, aggregation. Entity Relational Model – ERD.	2
Lec 5	Classical structures and generic patterns of information models.	1
Lec 6	Consistence and completeness of the structured model checking methods. CRUD method.	2
Lec 7	Rules of the transformation from ERD to logical relational database design.	2
Lec 8	Test	2
	Total hours	15
Laboratory		Number of hours
Lab 1	Organizational information, rules for passing the laboratory. Analysis of case study “Hydraulics”.	1
	The rules of preparing new one case study (business story) about the customer business needs from organization perspective.	1
Lab 2	The functional areas extraction. Decomposition and grouping functions (FHD). The domain dictionary development.	2
Lab 3	The interdependencies between functions and the events analysis – process model building (FDD).	2
Lab 4	The information needs: an entity type identification analysis. The business relationship analysis – definition and representation (ERD)	2
Lab 5	ERD cont. Consistency and completeness checking.	2
Lab 6	The relational database design using ERD transformation rules.	2
Lab 7	The rules of data processing – function logic and the usage of an entity type by a function - CRUD method.	2
Lab 8	Signing indexes	1
	Total hours	15
TEACHING TOOLS USED		
N1. Traditional lecture with multimedia presentations		
N2. Lecture and seminar materials available in electronic form on the ePortal		
N3. Discussion		
N4. Team case analysis and solution design		
N5. Students' presentation of the final report - audiovisual media (slides, computer projector)		
N6. Software to aided the construction of graphic models, e.g. Ms Visio		

N7. Test with the open questions

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	Assessment of the task quality
F3	PEU_U01 PEU_U02	Participation in a problem-based discussion & collaboration in a project team
P (lecture) = F1 P (lab) = 0,7* F2 + 0,3* F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Barker R., CASE*Method – Entity Relationship Modellin, Addison-Wesley PC , 1989
[2] Barker R., Longman C., CASE*Method – Function and Process Modelling, Addison-Wesley PC , 1989

SECONDARY LITERATURE:

- [1] Gane C., Sarson T., Structured Systems Analysis - Tools and Techniques, Prentice-Hall, Englewood Cliffs, New Jersey, 1989
[2] Robertson S. and J., Mastering the Requirements Process, Addison-Wesley, 2006

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Grażyna, Hołodnik-Janczura, grazyna.holodnik-janczura@pwr.edu.pl
Sebastian, Tomczak, Sebastian.tomczak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name in Polish: Mikroekonomia****Name in English: Microeconomics****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8004****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)	75	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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	1.2			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

none

SUBJECT OBJECTIVES

C1 The main aim of the course is to present basic knowledge in microeconomics area, especially:

C2 To introduce essential economic models like demand model and supply model

C3. To introduce economic terms like costs, revenues, profits

C4. To introduce how the company functions

C5. To introduce optimal decisions theory for: customers and producers

C6. To introduce basics of market structures

C7.To extend students abilities of understanding the functioning of market

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Explains the nature and place of economic sciences in the system of sciences and their relations with other social and technical sciences. Explains the genesis and evolution of economic sciences, including management sciences.

PEU_W02 Organizes and systematizes basic knowledge of various economic sciences. Distinguishes and characterizes basic types of economic systems (systems) and their elements.

PEU_W03 Knows and explains the content of basic notions, laws and economic relations in microeconomic and macroeconomic scale. It characterizes main theories of economics. Student knows basic goals and institutions of market economy and their functions. Has knowledge about economic conditions of economy and organization functioning.

PEU_W06 Identifies interorganizational relations and interactions of organizations with the environment in the context of national, international and intercultural conditions. Explains and illustrates the influence of environment on organisation activity.

relating to skills:

PEU_U01 Is able to analyse and evaluate objectives, features, elements, processes, functional areas in organisation, as well as internal and interorganisational relations, using basic notions and theoretical approaches in economics.

PEU_U02 Can analyse the causes and dynamics of phenomena in the organisation and its environment. He/she is able to identify and analyse typical managerial and content-related problems in the organisation and its functional areas.

PEU_U03 Can select sources of information and use them to solve typical managerial and content-related problems in the organisation and its functional areas.

PEU_U15 Can independently use a variety of Polish and foreign sources of information, in particular the professional literature. Can integrate obtained information and use it to deepen specialist knowledge related to the field of social sciences, discipline of management sciences.

PEU_U16 Understands general and scientific texts on listening and reading matters related to the field of social sciences, discipline of management sciences. He/she is able to express him/herself (orally and in writing), participate in discussions and present opinions in an international professional environment - in a foreign language.

relating to social competences:

PEU_K02 Can cooperate and work in group and team forms of work organisation (taking various roles in them). He/she can organise the work of small teams and lead them.

PEU_K06 Is prepared to convey, convince and defend own views in the name of achieving common goals. Is prepared to behave in a professional and ethical way.

PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec 1	Introduction. Main Principles of economics	2
Lec 2	Interdependence and gain from trade	2
Lec 3	The market forces of supply and demand	2
Lec 4	Elasticity and its application: demand and supply elasticities, price and income elasticities, classification of goods	2
Lec 5	Supply, demand and government policies	2
Lec 6	Welfare economics	2
Lec. 7	The economics of the public sector	2
Lec. 8	The firm behavior – cost of production (part 1)	2

Lec. 9	The firm behavior – cost of production (part 2)	2
Lec. 10	The firm behavior – cost of production (part 3)	2
Lec. 11	Market structures – general overview, classification and key features	2
Lec. 12	The markets for the factors of production	2
Lec. 13	The theory of consumer choice (part 1)	2
Lec. 14	The theory of consumer choice (part 2)	2
Lec. 15	Review	2
	Total hours	30
Form of classes - class		Number of hours
Cl 1	The production possibilities frontier Opportunity cost	2
Cl 2	Specialization and trade The principle of comparative advantage and absolute advantage	2
Cl 3	Demand schedule and demand curve Shifts in the demand curve Supply schedule and supply curve Shifts in the supply curve The equilibrium of supply and demand	2
Cl 4	Computing price elasticity of demand The variety of demand curves Total revenue and the price elasticity of demand Computing cross elasticity of demand Computing income elasticity of demand Computing price elasticity of supply	2
Cl. 5	Price ceiling and price floor Elasticity and taxes	2
Cl. 6	Consumer and producer surplus in the market equilibrium Cost of taxation The equilibrium with/ without international trade (import/ export)	2
Cl. 7	TEST no. 1	2
Cl. 8	Externalities and market inefficiency Public goods and common resource	2
Cl. 9	Opportunity cost Total revenue, total cost and profit Economic profit versus accounting profit	2
Cl. 10	The total cost curve Fixed and variable cost Average costs Marginal costs Average and total cost in short and long run	2
Cl. 11	Firm's short- and long run decisions in the competitive market Monopoly's production decisions (demand and marginal-revenue curves) Monopolistic versus perfect competition Oligopoly and monopolistic competition	2
Cl. 12	Labor market The markets for land and capital	2
Cl. 13	The production function and marginal product	2

Cl. 14	The consumer's budget constraint The consumer's preferences The consumer's optimum Income and substitution effects	2
Cl. 15	TEST no. 2	2
	Total hours	30

TEACHING TOOLS USED

Lectures
N1. Lectures
N2. Multimedia presentations
N3. Films
Classes
N4. Exercises
N5. Discussion
N6. Homework
N7. Case studies

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_U03, PEU_U15, PEU_U16 PEU_K02, PEU_K06	Activity during classes
F2	PEU_U01÷PEU_U03, PEU_U15, PEU_U16	Homeworks
F3	PEU_U02÷PEU_U03, PEU_W01-PEU_W03	Written tests
F4	PEU_W01 ÷PEU_W03, OEU_W06 PEU_U01÷PEU_U03	Exam
P (lecture) = F4 P (classes) = 0,20*F1+0,10*F2+0,70*F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Mankiw N.G., Principles of microeconomics, 6th edition, South-Western Cengage Learning, 2011
- [2] Krugman P., Wells R., Microeconomics, 3rd edition, 2012

SECONDARY LITERATURE:

- [1] „Microeconomics 6e” Prentice Hall Publishing House, June 2004
- [2] D. Begg, S. Fischer, R. Dornsbuch *Economics*, 2020 (12th edition).
- [3] Mas-Colell A., Whinston M.D. Green J.R. Microeconomic Theory, Oxford University Press, 1995.
- [4] G.A. Jehle, P.J.Reny, Advanced Microeconomic Theory. Addison Wesley, 2001.
- [5] Mass-Colell, M. Whinston, J. Creen, Microeconomic Theory. Oxford University Press,

Oxford 1995.

[6] H.R. Varian, Microeconomic Analysis. W. W. Norton and Company, 1992.

[7] M. Friedman, R. Friedman, Free to choose, Harvest Book 1990.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Grzegorz Chodak, grzegorz.chodak@pwr.edu.pl

Anna Kowalska-Pyzalska anna.kowalska-pyzalska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Nowoczesne zarządzanie zasobami ludzkimi**Name of subject in English:** Modern Human Resource Management**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8086**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)	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)	1.2	1.2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge in the scope of basis of management and organizational behaviors.

SUBJECT OBJECTIVES

C1: Providing students with information on objectives, instruments, principles and elements occurring in the human resource management in the organisation and internal and external factors of the process. Providing students with information on modern methods and tools of HRM.

C2: Allowing students to directly learn principles and instruments that are actually used in particular areas of human resource management in given organisations (case studies).

C3: Showing students, on selected examples, the principles of conduct and behaviours of significant importance for the effective functioning of employees in individual and group work.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEU_W01 Has a knowledge about the essence of personnel function, the personnel management process and human resource management. Understands the essence of philosophy, policy and strategy of personnel function as well as knows the rules of the human resource planning and personnel controlling.

PEU_W02 Has a knowledge about the recruitment, selection and introduction to the work processes (incl. personnel marketing). Knows the rules of competency based management. Knows the essence and principles of periodical employee evaluation. Has a knowledge about motivation and rewarding of employees (inc. innovative methods of rewarding). Understands the rules of shaping the employees development and the career paths.

PEU_W03 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: Student is able to make a diagnosis of the existing situation in particular areas of personnel management and to formulate conclusions in the scope of the evaluation of the condition in the context of recommendations resulting from literature. Student is able to identify factors which influence the effectiveness of personnel function realisation.

PEU_U02: Student is able to choose sources of information and use selected techniques for gaining information (interview, survey, documentation) for the purpose of solving typical diagnostic problems in selected areas of personnel management.

PEU_U03: Student is able to prepare an expert appraisal in the form of a written report. Student is able to present the results of the diagnostic research and to defend the conclusions before a group of experts.

Relating to social competences:

PEU_K01: Student is able to update his/her knowledge; he/she knows the key authors, directions and tendency in the development of knowledge of personnel management.

PEU_K02: Student is aware and prepared to identify, analyse and settle employee problems occurring in the work place in relation with the performance of the personnel function.

PROGRAMME CONTENT

Lecture		Number of hours
Lec1	Introduction, criteria of student evaluation, overview the lecture.	1
Lec1	The concept and essence of personnel function, goals of personnel management, human resource 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 based management in personnel management. Personnel marketing.	2
Lec7	Aims and concepts of employee evaluation. Periodical Employee Evaluation System (SOOP). Criteria, methods and rules of the employee evaluation. Effectiveness of the SOOP.	2

Lec8	Colloquium (1).	2
Lec9-10	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. Innovative methods of rewarding.	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 features an efficient communication process.	2
Wy15	Summary of the lecture. Colloquium (2).	2
	Total hours	30
Classes		Number of hours
Cl. 1	Presentation of the purpose of classes, their course and criteria of student evaluation. Discussion of particular tasks composing the diagnostic paper. Task 1: Selection of the theme and gaining an object of the research. Task 2: Presentation of the object of the research and formal principles and instruments applicable to the given area of personnel management. Task 3: Conducting diagnostic research in a real facility in the selected area of personnel management. Task 4: Working out a report documenting the results of the diagnostic research. Task 5: Presentation and defence of conclusions from the research.	2
Cl. 2	Consultations related to the selection of the theme and manner of conducting and documenting the diagnostic research related to the procedure (course of the process) and instruments of personnel management in the selected area. Discussing the contents of particular parts of the written report documenting the results of the diagnostic work in exemplary thematic areas. Answering students' questions.	2
Cl. 3 Cl. 4	Brief (5-minute) presentations of students related to: the object of the research (organisational and legal form, objects of the company), location of the given unit in the organisational structure and its basic tasks, scope of obligations and rights on selected positions, general discussion of the formal instruments applicable to the entire organisation and manners of personnel management in the selected thematic area. Indication by the lecturer of issues and problems requiring a detailed diagnosis and focusing the student's attention to innovative instruments that may be applied in the enterprise analysed.	4
Cl. 5 Cl. 6	Work in diagnostic groups - consultations related to substantive problems, evaluation of the advancement of students' work. Discussing the information gathered by groups, describing the existing situation and consultations related to the manner of preparation of Chapters 2 and 3 of the written report.	4
Cl. 7-14	Presentation of the results of the diagnostic research - case studies, discussion and evaluation of presentation.	16
Cl.15	Summing up classes: discussing conclusions related to the assessment of written reports and students' presentations - indication of good and bad points.	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture with multimedia presentations.		

- N2. Self-study of student
 N3. Short presentation (5 minutes) - audiovisual means
 N4. Work in diagnostic groups - consultations with the lecturer.
 N5. Written report, edited according to a strictly defined template
 N6. Students' presentation of the final reports - audiovisual media
 N7. Studies in chosen organization – interviews, documentary analysis, surveys.
 N8. Discussion.

EVALUATION OF SUBJECT EDUCATIONAL 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	Colloquium 1.
F2	PEU_W02, PEU_W03	Colloquium 2.
F3	PEU_U01, PEU_U03, PEU_K01	Participation during classes - participation in the discussion 28 pts.
F4	PEU_U02, PEU_U03	1st presentation: substantive value - 5 pts., presentation quality - 5 pts.
F5	PEU_U01, PEU_U02, PEU_U03, PEU_K01, PEU_K02	2nd presentation: completeness - 5 pts., substantive value - 10 pts., presentation quality - 10 pts.
F6	PEU_U01, PEU_U02, PEU_U03	Diagnostic report (30 pts) entitled "Diagnosis ... name of the selected area of personnel management in ... organisation name as exemplified by the ... (name) Department". source materials – 7 pts.

P(lecture)=0,5*F1+0,5*F2

P(classes)= F3+F4+F5+F6

Failed .< 50 cred. Satisfactory. 51 - 59 cred.. Satisfactory + 60 - 67 cred.

Good. 68 - 77 cred. Good.+ 78 - 85 cred. Very good 86 - 95 cred.. Excellent > 95 cred..

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

1. Contemporary human resource management :text and cases /ed. by Tom Redman and Adrian Wilkinson. Harlow [etc.] : Financial Times Prentice Hall, 2006.
2. Human resource management /Lloyd L. Byars, Leslie W. Rue. Boston : McGraw-Hill, cop. 2004.

SECONDARY LITERATURE:

1. Human resource management :an experiential approach /H. John Bernardin. Boston : McGraw-Hill/Irwin, cop. 2003.
2. Fundamentals of human resource management /David A. DeCenzo, Stephen P. Robbins. Hoboken : John Wiley & Sons, cop. 2005.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Agnieszka Bieńkowska, agnieszka.bienkowska@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie operacjami****Name of subject in English: Operations Management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level****Kind of subject: obligatory****Subject code: W08ZZZ-SL8022****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)	25	25	25		
Form of crediting	Examination	Crediting with grade	Crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1	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)	0.6	0.6	0.6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Essentials of Management
2. Basic skills in Microsoft Excel

SUBJECT OBJECTIVES

- C1: To acquire basic knowledge concerning approaches, strategies, models and methods useful in improving effectiveness and efficiency of production and service management in business organizations,
- C2: To acquire skills in building feasible and efficient production plans and schedules,
- C3: To acquire skills in efficient using of systems and models of inventory management in enterprise.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01: Knows and defines production process, productivity, Operations Management objectives, strategic and operational decisions of Operations Management.

PEU_W02: Understands, identifies and describes production planning and control in an enterprise and most common methods.

PEU_W03: Knows and describes inventory types, functions, costs and inventory management systems and models.

relating to skills:

PEU_U01 Explains production process, productivity, operations management , strategic and operational decisions of OM, can calculate productivity, can calculate operational profit, can select optimal product mix, can select optimal process (using Excel).

PEU_U02 Develops feasible and efficient production plans and schedules (using Excel).

PEU_U03 Selects adequate inventory management system and lot-sizing model (MRP, EOQ) and can implement (using Excel).

relating to social competences:

PEU_K01 Understands the importance of Operations Management in improving efficiency of an enterprise as well as of market economy.

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction and outline of the course. Essential functions of organizations, Basic management functions. Information on organizational matters, assessment and grading.	1
Lec 2	Basic definitions. Production and productivity. ABC analysis. Strategic decisions in Operations Management.	2
Lec 3	Inventory Management. Inventory: types, functions, costs. Inventory management systems and models. Economic Order Quantity Model. Quantity discounts.	2
Lec 4	Aggregate Production Planning: objectives, options, strategies and methods. Graphical methods.	2
Lec 5	Short-Term Scheduling: backward and forward. Loading jobs. Sequencing jobs.	2
Lec 6	Material Requirements Planning (MRP). Structure and management. Lot-sizing techniques.	2
Lec 7	Aggregate Production Planning. Mathematical methods.	2
Lec 8	Summary of all topics.	2
	Total hours	15
Classes		Number of hours
C1 0	Information on organizational matters, assessment and grading. Outline of problem solving methods for classes and lab.	1
Cl 1	Operations and productivity. ABC Analysis.	2
Cl 2	Inventory Management. Inventory: types, functions, costs. Inventory	2

	management systems and models. Economic Order Quantity Model.	
Cl 3	Inventory Management. Economic Order Quantity Model. Production Order Quantity Model. Quantity discounts.	2
Cl 4	Aggregate Production Planning. Development of feasible and efficient plans. Graphical methods.	2
Cl 5	Aggregate Production Planning. Mathematical methods (Transportation model).	
C1 6	Short-Term Scheduling: backward and forward. Loading jobs. Sequencing jobs.	2
C1 7	Material Requirements Planning (MRP). Structure and management. Lot-sizing techniques.	2
	Total hours	15
Laboratory		Number of hours
Lab 1	Information on organizational matters, assessment and grading. Production flow control using the OPT simulator.	3
Lab 2	Aggregate Production Planning. Development of feasible and efficient plans using chase and level strategies (Excel)	3
Lab 3	Inventory Management (Excel)	3
Lab 4	Master Production Schedule and Material Requirements Planning (Excel)	3
Lab 5	Short-term Scheduling (Excel)	3
	Total hours	15
TEACHING TOOLS USED		
N1. Problem solving (Test bank furnished by Pearson). N2. Excel simulations and automated problem solving. N3. Videos and discussion.		

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_U01, PEU_U02, PEU_U03, PEU_K01.	activity
F2	PEU_W01, PEU_W02, PEU_W03. PEU_K01.	Test 1
F3	PEU_W01, PEU_W02, PEU_W03. PEU_K01.	Test 2
F4	PEU_W01, PEU_W02, PEU_W03. PEU_K01.	Test 3
F5	PEU_W01, PEU_W02, PEU_W03. PEU_K01.	Test 4
F6	PEU_U01, PEU_U02, PEU_U03.	Lab report 1
F7	PEU_U01, PEU_U02, PEU_U03.	Lab report 2
F8	PEU_U01, PEU_U02, PEU_U03.	Lab report 3
F9	PEU_U01, PEU_U02, PEU_U03.	Lab report 3

F10	PEU_W01, PEU_W02, PEU_W03. PEU_U01, PEU_U02, PEU_U03. PEU_K01.	Oral Exam
P (Classes) = $0,2 \cdot (F1+F2+F3+F4+F5)$ P (Laboratory) = $0,2 \cdot (F1+F6+F7+F8+F9)$ P (Lecture) = F10		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Heizer J., Render B., Munson C. Operations Management: Sustainability and Supply Chain Management, Global Edition. Pearson Education Limited; Edycja 13 (31 lipca 2019)		
<u>SECONDARY LITERATURE</u>		
[1] Reid R.D., Operations management: an integrated approach, John Wiley & Sons, Hoboken 2005.		
[2] Bozarth C., C., Handfield R., Introduction to Operations and Supply Chain Management, Pearson Education, Inc. Co. Upper Saddle River, New Jersey 2006.		
[3] Vonderembse M., A., White G., P., Operations Management. Concepts, Methods, and Strategies, West Publishing Company 1991		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Jan Schneider, jan.schneider@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish** Zachowania organizacyjne**Name of subject in Polish English** Organizational Behaviour**Discipline (if need):** Management**Specialization (if need):** Organizational Management (OM)**Profile:** academic**Level and form of studies:** 1st level, full-time**Type of course:** obligatory**Course code:** W08ZZZ-SL8068**Group of courses:** NO

Course Form	Lecture	Class	Laboratory	Project	Seminar
Number of hours/semester* provided in University (ZZU)	30	15			
Total Student's Workload (CNPS)	50	25			
Form of the course completion	crediting with grade*	crediting with grade*			
For Group of Courses to Mark The Final Course (X)					
ECTS Credit	2	1			
Including the amount of relevant practice credit (P)		1			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	0.6			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of organization and management theory

SUBJECT OBJECTIVES

C1 Understanding the essence and regularity of organizational behavior.

C2. Identification of determinants of organizational behavior and assessment of their impact on the functioning of the organization.

C3 Managing the organizational behavior of contemporary organizations.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows the meaning, goals and ethical determinants of organizational behavior.

PEU_W02 Explains the essence of shaping organizational behaviors and their impact on the management of changes in the organization, indicates the sources of resistance against changes and ways of their neutralization.

PEU_W03 Knows the models and mechanisms of their operation regarding the creation of organizational behaviors, including the principles of building and functioning of teams, the importance and impact of organizational culture as well as the means and systems of communication in the organization.

relating to skills:

PEU_U01 Can identify the key factors shaping organizational behavior.

PEU_U02 Is able to use sets of tools for shaping and designing changes within organizational behavior in practice

relating to social competences:

PEU_K01 Is oriented on ethical and responsible behavior in certain situations in the practice of the organization.

PEU_K02 Is aware of the requirement to devote effort and time to assess the situation and factors influencing organizational behavior

PEU_K03 Has a reliable perception of the relationship between a superior and a subordinate, is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT

Lectures		Number of hours
Lec1	Organizational issues- discussion of the rules for organizing the lecture and the rules for passing. Genesis and essence of Organizational Behavior	2
Lec2	Factors influencing on organization and forming organizational behavior, definitions and their interpretations	2
Lec3	Organizational behavior of Individuals. Solidarity and consolidation of the group	2
Lec4	Organizational behavior of group. Conflicts – their sources and resolving.	2
Lec5	Multi related organizational behavior. Integration and competition.	2
Lec6	Organization vs. Environment. Multi dimensioned organizational relationships. Cooperation	2
Lec7	Strategic management as the reactions on environmental factors.	2
Lec8	Methods and techniques in creating and organizational behavior	2
Lec9	Leadership and Styles of leading. The profile of contemporary leader	2
Lec10	Relational capital in organization – network, rates and processes of communications. Means of communication	2
Lec11	Negotiations. Methods and styles of negotiations	2
Lec12	Tiring, discouraging and “professional burning out” - reason, aspects, surmounting	2
Lec13	Ethic in organization – determinants, norms and standards vs. practice.	2
Lec14	Organizational culture	2
Lec15	Final test	2
Total number of hours		30

Classes		Number of hours
Clas1	Organizational roles of course’s realization and promoting	1
Clas2	Leadership – theoretical aspects: attributes, skills, techniques. Individual and group aims vs. consolidation of the group	2
Clas3	Environment’s factors and their affect on organization – factors, impacts and results of influence. Sociological, technical, economical and political determinants creating the organizational behavior	2
Clas4	Negotiations as manner of resolving conflicts. Communications tools and their role and meaning in motivation’ processes	2
Clas5	Organizational culture and its role in forming individual and group organizational behavior. Motivating – historical and temporary theories and approaches	2

Clas6	Ethic in organization – determinants, norms and standards vs. practice. Crisis phenomena – source of failure and benefits	2
Clas7	Organizational pathology – conflict, mobbing, phenomena of distastes, manners of mitigation. “Hard” employee in organization – the role of group and leader in leadership	2
Clas8	Changes vs. “organizational gap”. Individuals and group in resolving problem of effectiveness	2
Total number of hours		15

TEACHING TOOLS USED	
N1. problem lecture with the use of a multimedia presentation N2. group work N3 own work (literature studies, essays) N4. case studies N5. discussion	

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT		
Evaluation (F – forming (due to progress in semester), P – final (the end of semester))	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_W01; PEU_W02; PEU_W03	Final test
F2	PEU_W01, PEU_W02 ; PEU_W03, PEU_K01, PEU_K03	Activity measurement through class attendance
F3	PEU_W02, PEU_W03, PEU_U01, PEU_U02	Measurement by assessing the level of presentation preparation
F4	PEU_W01; PEU_W02; PEU_W03; PEU_K01, PEU_K03	Mesurement by assessing the preparation for discussion
F5	PEU_W02, PEU_K02	Messurement by evaluation own studies and group work
P(lecture)=F1 P(classes)=0,25*F2+0,25*F3 +0,25*F4 +0,25*F5		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Robbins, Judge (2018), <i>Organizational Behavior</i> , 18/e, Prentice Hall [2] McShane, Von Glinow, (2020) <i>Organizational behavior: Emerging knowledge. Global reality</i> , McGraw-Hill Education [3] Griffin, Moorhead (2013) <i>Organizational Behavior: Managing People and Organizations</i> , 11/e, Cengage Learning.
<u>SECONDARY LITERATURE:</u> [1] Gibson, Ivancevich, Donnelly (2000), <i>Organizations: Behavior, Structure, Processes</i> , 10/e, McGraw-Hill Education [2] Nelson, Quick (2000), <i>Organizational Behavior: Foundations, Realities and Challenges</i> , 3/e, South-Western [3] Schermerhan, Hunt, Osborn (2000), <i>Organizational Behavior</i> , 7/e, Wiley
TUTOR: (SURNAME, NAME, ADDRESS E-MAIL)
Zbigniew Malara, Zbigniew.Malara@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Nauka o organizacji****Name of subject in English: Organizational Science****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8062****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)	50	25	-	-	-
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)	1.2	0.6	-	-	-

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1. To ensure fundamental knowledge about organizational structure and design

C2. To ensure fundamental knowledge about organizational culture and social issues

C3. To ensure fundamental knowledge about organizational strategy and development

SUBJECT EDUCATIONAL EFFECTS**relating to knowledge:**

PEU_W01 – has a basic knowledge about types of organizations

PEU_W02 – explains and illustrates the impact of the environment on the operations of the organization

PEU_W03 – has a basic knowledge about forming and functioning of the organization, understands organizational development stages

relating to skills:

PEU_U01 – analyzes and evaluates (at a basic level) the organizational design choices

PEU_U02 – analyzes and evaluates (at a basic level) the organization as a system of functions,

processes and projects PEU_U03 – analyzes and evaluates (at a basic level) organizations in different life cycle stages relating to social competences: PEU_K01 - is aware of the need to develop knowledge and skills in the science of organization and management PEU_K02 - is prepared to express and defend his/her views, and to persuade others to his/her views PEU_K03 – is aware that managers have to comply with appropriate – professional and ethical standards		
PROGRAMME CONTENT		
Lectures		Number of hours
Lec1	Introduction and crediting rules	2
Lec2	Organizations and Organizational Effectiveness	2
Lec3	Stakeholders, Managers, and Ethics	2
Lec4	Organizing in a Changing Global Environment	2
Lec5	Basic Challenges of Organizational Design	2
Lec6	Designing Organizational Structure: Authority and Control	2
Lec7	Designing Organizational Structure: Specialization and Coordination.	2
Lec8	Creating and Managing Organizational Culture	2
Lec 9	Organizational Design and Strategy in a Changing Global Environment	2
Lec10	Organizational Design, Competences, and Technology	2
Lec11	Types and Forms of Organizational Change	2
Lec12	Organizational Transformations: Birth, Growth, Decline, and Death	2
Lec13	Decision Making, Learning, and Information Technology	2
Lec14	Managing Conflict, Power, and Politics	2
Lec15	Final Test	2
	Total hours	30
Classes		Number of hours
Cl 1	Introduction and crediting rules	1
Cl 2	Modern organizational designs	2
Cl 3	Organization as a system of functions, processes and operations.	2
Cl 4	Analysis and evaluation of organizational structure	2
Cl 5	Analysis and evaluation of organizational culture	2
Cl 6	Analysis and evaluation of organizational startegy	2
Cl 7	Decision making and organizational change	2
Cl 8	Managing Conflict, Power, and Politics	2
	Total hours	15
TEACHING TOOLS USED		
N1. Traditional lecture with multimedia presentations N2. Case studies presented during lecture N3. Discussion of selected issues N4. Case studies solving (independently by student or jointly with other students)		

N5. Self-study: classes preparation and final assessment preparation
 N6. Presentations prepared by students

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_K01 PEU_K02 PEU_K03	Discussion
F2	PEU_U01 PEU_U02 PEU_U03	Scoring students' involvement and presentations
F3	PEU_W01 PEU_W02 PEU_W03	Final test
P (classes) = 0.5 F1 + 0.5 F2 P (lecture) = F3		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Jones G.R., Organizational Theory, Design, and Change, Pearson, 2013		
[2] David F., David F., David M., Strategic Management: A Competitive Advantage Approach, Concepts, 17th Edition, Pearson, 2020		
[3] Certo S.C., Certo S.T., Modern Management: Concepts and Skills, Pearson, 2018		
<u>SECONDARY LITERATURE:</u>		
[1] Koźmiński A.K.: Management in transition, Difin, Warsaw 2008.		
[2] McKee A.: Management: a focus on leaders, Pearson, Boston 2012.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Adam Dzidowski, adam.dzidowski@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy programowania - Python****Name of subject in English: Programming basics - Python****Main field of study (if applicable): Management****Specialization (if applicable): Organizational management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8069****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)	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)	1.2		1.2		

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knows functional and hardware structure of computers, familiar with idea and classification of the software
2. Is able to use computer, work in the GUI of OS and use utility software

SUBJECT OBJECTIVES

C1 Teaching basic Python and presenting its possibilities with focus on data science

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows Python's syntax and core ideas of the language

PEU_W02 Knows possibilities of Python and knows some data science libraries

relating to skills:

PEU_U01 Is able to write medium-length working code in Python

PEU_U02 Is able to conduct calculations by the means of selected Python libraries

PEU_U03 Is able to analyze data using Python

PROGRAMME CONTENT

Lecture		Number of hours
Lec 1	Introduction to classes and rules	2
Lec 2	Introduction to Python, tools and IDEs	2
Lec 3	Formatting code, Datatypes	2
Lec 4	Loops, conditional statements, list comprehension	2
Lec 5	List comprehension, generators, lambda functions	2
Lec 6	IO and string formatting	2
Lec 7	Object oriented programming, classes, objects, inheritance	2
Lec 8	Errors and exception handling	2
Lec 9	Errors, exceptions, exception handling, raising exceptions, classes and objects	2
Lec 10	Python's standard library	2
Lec 11	Graphical user interface GUI	2
Lec 12	Network programming elements	2
Lec 13	Selected numerical computation libraries	2
Lec 14	Final test	2
Lec 15	Summary	2
	Total hours	30
Laboratory		Number of hours
Lab 1	Introduction and organization of the course	2
Lab 2	Introduction to Python interpreter and tools	2
Lab 3	Formatting and datatypes	2
Lab 4	Loops and conditional statements	2
Lab 5	Reading and writing files, list comprehension, generators, lambda functions	2
Lab 6	Object oriented programming OOP	2
Lab 7	Test	2
Lab 8	Errors and exception handling	2
Lab 9	Modules, preparation of own module	2
Lab 10	Python standard library	2
Lab 11	GUI libraries	2
Lab 12	Network programming methods	2
Lab 13	Numerical computations	2
Lab 14	Final test	2
Lab 15	Summary	2
	Total hours	30
TEACHING TOOLS USED		
N1. N2. N3.		

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_U01	test
F2	PEU_W02 PEU_U02 PEU_U03	test
F3	PEU_U01 PEU_U02 PEU_U03	Short practical tests
F4		presence
F5	PEU_W01 PEU_W02	test
P1 = F5		
$P2 = 0,4 \cdot F1 + 0,4 \cdot F2 + 0,1 \cdot F3 + 0,1 \cdot F4$		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Mark Lutz, Python. Wprowadzenie. Wydanie V [2] Peter Bruce, Andrew Bruce, Peter Gedeck, Statystyka praktyczna w data science. 50 kluczowych zagadnień w językach R i Python. Wydanie II		
<u>SECONDARY LITERATURE:</u> [1] https://docs.python.org/3/tutorial/index.html [2] https://docs.scipy.org/doc/scipy/reference/ [3] https://numpy.org/doc/ [4] https://matplotlib.org/stable/contents.html [5] https://pandas.pydata.org/docs/ Sebastian Raschka, Vahid Mirjalili, Python. Machine learning i deep learning. Biblioteki scikit-learn i TensorFlow 2. Wydanie III		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Piotr Nyczka, piotr.nyczka@pwr.edu.pl Rafał Miśko rafal.misko@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Podstawy programowania - VBA****Name of subject in English: Programming basics - VBA****Main field of study (if applicable): Management****Specialization (if applicable): Organizational management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8070****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)	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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2		1.2		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knows the functional and hardware structures of computers, the concept and the classification of computer software.
2. Capable of using computers, working in the operation system graphical environment using application programs.

SUBJECT OBJECTIVES

C1. To acquire capability to create basic computer programs.

C2. To acquire social competencies specific for the application development in information systems in organizations.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01. Knows the basic principles of design and development of computer programs and knows how to automate tasks using software applications and programming languages.

relating to skills:

PEU_U01. Capable to implement a simply computer program and capable to take advantage of the programming elements to extend the functionality of computer utility package.

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 the use of utilities in the organization
 PEU_K02. Capable professionally to find and chose problem solving methods, to take the responsibility for them, pass over, convince and defend own views related to the application of the computer programming.

PROGRAMME CONTENT		
Lectures		Number of hours
Lec 1	Introduction. Organizational matters. Introduction to VBA in Excel. Recording macro, using, debugging Excel macros.	2
Lec 2	Interaction with Excel. Command button. Stats program.	2
Lec 3	Variables, data types and constants.	2
Lec 4	Procedures and functions - defining and using.	2
Lec 5-6	Conditions, loops, recursive functions.	4
Lec 7	Composite data types: structures, arrays and classes.	2
Lec 8-9	Selected VBA statements, random numbers, error handling.	4
Lec 10-11	Excel object model.	4
Lec 12	Forms, controls, events.	2
Lec 13-14	VBA in MS Access.	4
Lec 15	Summary. Knowledge test.	2
	Total hours	30
Laboratory		Number of hours
Lab0	Introduction. Organizational matters. Recording macro.	2
Lab 2-3	Simple Stats program.	4
Lab 4-5	Creating procedures and functions.	4
Lab 6	Practical test (F1).	2
Lab 7	Using composite data types.	2
Lab 8-9	Using selected VBA statements, error handling.	4
Lab 10	Creating forms, controls.	2
Lab 11	Practical test (F2).	2
Lab12-13	Interaction with MS Access.	4
Lab 14	Practical test (F3).	2
Lab 15	Summary. Credit.	2
	Total hours	30
TEACHING TOOLS USED		

N1. Multimedia presentation.
 N2. Task lists.
 N3. Microsoft Office software: Excel, Access.

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_U01 PEU_U02 PEU_K01 PEU_K02	Practical test
F2	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01 PEU_K02	Practical test
F3	PEU_W01 PEU_W02 PEU_U01 PEU_U02 PEU_K01 PEU_K02	Practical test
F4	PEU_W01 PEU_W02	Knowledge test
P lecture = F4 P laboratory = $0.3 \cdot F1 + 0.4 \cdot F2 + 0.3 \cdot F3$		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Walkenbach J., Programming in VBA, 2013.
- [2] Jelen B., Syrstad T. Microsoft Excel 2019 VBA and Macros, 2019
- [3] Kusleika D., Alexander M., Excel 2019 Power Programming with VBA, 2019

SECONDARY LITERATURE:

- [1] Aho A.V., Ullman J.D., Hopcroft J.E.: Data Structures and Algorithms.
- [2] Wirth N.: Algorithms and Data Structures.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Piotr Nyczka, piotr.nyczka@pwr.edu.pl
 Rafał Miśko, rafal.misko@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Psychologia****Name of subject in English: Psychology****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8094****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 (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS, AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1 Acquire knowledge related to basic psychological terminology, principals, and phenomena

C2 Understand the mechanisms of human behavior and diagnosing methods

C3 Learn how to interpret human behavior in the natural context

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Student has basic knowledge of psychology. Interprets basic human concepts and explains psychological theories.

PROGRAM CONTENT

Lectures		Number of hours
Lec 1	Psychology as a science of human behavior. Introduction to a course outline.	2
Lec 2	Learning: behaviorism and behavior analysis	2
Lec 3	Personality: theories and assessment	2
Lec 4	The role of temperament and personality in regulating behavior.	2

Lec 5	The role of emotions and motivation in regulating behavior.	2
Lec 6	Sensory knowledge of the world: perception processes (identification and recognition, focus, and memory).	2
Lec 7	Memory: structures and functions.	2
Lec 8	Intelligence and mental processes.	2
Lec 9	Problem solving, reasoning, judgement and decision making.	2
Lec 10	Psychopathology of human behavior. Stress of living and health.	2
Lec 11	Psychopathology of human behavior. Mechanism of dysregulation; psychological disorders.	2
Lec 12	Human development across lifespan.	2
Lec 13	Positive psychology and well-being.	2
Lec 14	Social relationships.	2
Lec 15	Summary. Test.	2
	Total hours	30
TEACHING TOOLS USED		
N1. Lecture N2. Multimedia presentation N3. Discussion		

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	Written test of knowledge
P (lecture)= F1		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u> [1] Gerrig, R.J. (2013). <i>Psychology and life</i> (20 th Edition). Pearson Education, Inc. [2] Aronson, E., Wilson, T.D., Akert, R.M., Sommers, S.R. (2015). <i>Social Psychology</i> (9 th Edition). Harlow: Pearson Education Limited <u>SECONDARY LITERATURE:</u> [1] Hewstone, M., Fincham F.D., Foster, J. (2005). <i>Psychology</i> . Blackwell Publishing [2] Hock, R. (2009). <i>Forty studies that changed psychology. Explorations into the history of psychological research</i> (6 th Edition). New Jersey: Prentice Hall		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
JOLANTA BABIAK jolanta.babiak@pwr.edu.pl		

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Socjologia****Name of subject in English: Sociology****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management (OM)****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8010W****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 (P) classes					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2				

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

No prerequisites

SUBJECT OBJECTIVES

C1 Transfer of general knowledge about the mechanisms of social life

C2 Transfer of general knowledge about social and professional roles and their circumstances.

C3 Getting acquainted with the methods and techniques of sociological research

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 student understands and can describes the mechanisms of social construction of personality, presents requirements and conflicts of social roles, understands the role of culture in the functioning of society and social groups

PEU_W02 student identifies and classifies social ties, indicates levels of social integration, understands the essence of the concept of social capital

PEU_W03 student understands the role of indicating the consequences of belonging to a social network

PEU_W04 student identifies basic social processes, understands the nature of conflict, change and social adaptation

PEU_W05 student identifies the basic tools of sociological research and knows the rules of construction

relating to social competences:

PEU_K01 is aware of the need to independently develop their knowledge and professional skills. Can independently develop this knowledge and improve skills.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational issues - rules for the organization of the lecture and passing. Introduction to sociology	2
Lec 2	The concepts of sociology and sociology of organizations	2
Lec 3	Culture and its social significance. Culture of organization	2
Lec 4	Sociological theories of society	2
Lec 5	Sociological theories of organization	2
Lec 6	Microsociology - social actions, interactions and social relationships, role and social status	2
Lec 7	Mezosociology - social groups, social interactions in the work process, the team in the organization	2
Lec8	Macrosociology- social classes, social inequalities, state, types of social order and the nature of the economic system	2
Lec 9	Social processes-factors and the theory of social change, contemporary processes of changing social life and culture, collective activity	2
Lec 10	Economy- individual as a producer, the consumer and the holder in sociological perspective , the social dimension of management, homo economicus and homo socius	2
Lec 11	Social aspects of work	2
Lec 12	Tools of sociology. Research methods and techniques	2
Lec 13	Practical application of sociology: diagnosis of social problems, social policy, social ethic and responsibility	2
Lec 14	Selected problems of modern societies and organizations	2
Lec 15	Final test.	2
	Total hours	30

TEACHING TOOLS USED

N1. Problem lecture with the use of 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	PEU_W01; PEU_W02; PEU_W03; PEU_W04; PEU_W05; PEU_K01	Final test
P=F1		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Giddens A. (2017), *Sociology*, Atlantic Publishers & Distributors Pvt Ltd
- [2] Haralambos M., Holborn A. (2014), *Sociology: themes and perspectives*, Harper Collins
- [3] Tomley S., Hobbs M., Todd T. (2015), *The Sociology Book: Big Ideas Simply Explained*, DK

SECONDARY LITERATURE:

- [1] Macionis J., Bhatia R. (2018), *Sociology*, Pearson
- [2] Ritzer G. (2011), *Sociological Theory*, McGraw-Hill

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Jagoda Mrzygłocka- Chojnacka jagoda.mrzyglocka-chojnacka@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Przedsięwzięcia informatyczne w zarządzaniu****Name of subject in English: Software Project in Management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time studies****Kind of subject: optional****Subject code: W08ZZZ-SL8087****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)	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 (P) classes			2		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2		0.6		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of methods of analysis and modeling of management information systems.

SUBJECT OBJECTIVES

- O1 Obtaining detailed knowledge of selected traditional and modern methods of project management.
- O2. Gaining knowledge of software sizing and estimation of expenditures.
- O3. Acquire the skills of computer-aided project management.
- O4. Acquiring the ability of computer-aided modeling of computer application.

SUBJECT LEARNING OUTCOMES

relating to knowledge:

PEU_W01 – obtain the knowledge of the methods of planning and control of the project computer.

PEU_W02 - knows the possibility of using tools in project management.

PEU_W03 - knows the basic modeling of management information systems to support management solutions to common problems and issues in the particular areas of functional organization.

PEU_W04 – obtain the knowledge of the measurement of the size and complexity of software relating to skills:

PEU_U01 - knows how to develop a WBS structure and timetable of the project information.

PEU_U02 - is able to create using the tools of computer models of simple applications.

PEU_U03 - can use the tools to support the planning and monitoring of the the project.

PEU_U04 - knows how to determine the size and complexity of the software, as well as estimate the amount of expenditures.

PEU_U05 - can present adopted and developed solutions, participate in discussions and justify solutions developed.

relating to social competences:

PEU_K01 - is aware of the need to independently expand his knowledge in the field of IT tools supporting project management.

PEU_K02 - is able to interact and work in a team, assuming different roles.

PROGRAMME CONTENT

Form of classes - lecture		Number of hours
Lec 1	Discussion of the organization of classes and the conditions of passing. Introduction to the project management.	2
Lec 2	Traditional and modern methods in IT project management.	2
Lec 3-4	Planning the implementation of an IT project. Critical success factors of the project	4
Lec 5-6	Defining the IT project plan: scope, resources, cost, quality	4
Lec 7-8	Tools to support project management - MS Project (WBS, Gantt chart, Network Diagram).	4
Lec 9	Tools to support project management - MS Project II (Critical Path).	2
Lec 10	Methods and models for estimating project expenditure.	2
Lec 11	Selected aspects of computer application design: database design, application menu, report.	2
Lec 12-13	Change in project management. Communication and documentation of the project.	4
Lec 14	Attributes and models of software quality.	2
Lec 15	Assessment	2
	Total hours	30

Form of classes - laboratory		Number of hours
Lab1	Discussion of the organization of classes and the conditions of passing. Establish the topic of the work and the range of applications. Presentation of computer-aided modeling and management application tools	2
Lab2	Building detailed models (users' needs)	2

Lab3	Preparing the schedule. First checkpoint	2
Lab4	EV method. Second checkpoint	2
Lab5	Verification of the model - development of DFD. Calculation of size of applications (FP method). Third checkpoint	2
Lab6	Project development and application report. The creation of RDB. 4 th checkpoint	2
Lab7	Presentation	2
Lab8	Summary, Assessment	1
	Total hours	15

TEACHING TOOLS USED
N1 lecture with the use of a multimedia presentation N2. software necessary for the implementation of the laboratories (Ms PowerPoint, Ms Word, Ms Excel, Ms Access, Ms Visio, Ms Project) N3. group tasks

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_U02	Assessment of the report prepared by the students
F2	PEU_U01	Assessment of the report prepared by the students
F3	PEU_U02,PEU_U03, PEU_U04	Assessment of the report prepared by the students
F4	PEU_U03, PEU_U05	Assessment of the report prepared by the students
P1	PEU_W01,PEU_W02, PEU_W03, PEU_W04	Test
PW (lecture) = P1 PL (laboratory) = F1+F2+F3+F4, evaluation according to a spot marking scale		

PRIMARY AND SECONDARY LITERATURE
PRIMARY LITERATURE: [1] Schwalbe K., Managing Information Technology Projects, CENGAGE Learning [2] Cockburn A., Agile Software Development, McGraw-Hill [3] Capers Jones, Applied software measurement - assuring productivity and quality, McGraw-Hill
SECONDARY LITERATURE: [1] Hp.Clements, R.Kazman, M.Klein., Evaluating software architectures - methods and case studies, Addison-Wesley [2] Garmus D., Herron D., Function Point Analysis, Addison-Wesley 2001 [3] Womack S., Jones D., Lean thinking., ProdPress 2008
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Joanna Kott Joanna.Kott@pwr.edu.pl Sebastian Tomczak sebastian.tomczak@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Kompleksowe zarządzanie jakością****Name of subject in English: Total quality management****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st, full-time****Kind of subject: obligatory****Subject code: W08ZZZ-SL8030****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)	75	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 (P) classes		2			
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2	1.2			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of theory of management

SUBJECT OBJECTIVES

- C1 Acquisition of knowledge of the concepts of quality management in organizations, in particular the terms and the principles of quality management in the philosophy of TQM.
- C2 Acquisition of knowledge of the design, implementation, operation, maintenance and improvement of quality management systems in business organizations, especially the quality management standard according to ISO 9000 series.
- C3 Acquisition of skills at using selected quality management tools in solving quality problems in organizations.

SUBJECT LEARNING OUTCOMES**relating to knowledge:**

PEU_W01 Knows basic terms and definitions in the field of the quality management.

PEU_W02 Knows concepts of quality management in organizations, in particular the principles of quality management according to TQM and KAIZEN.

PEU_W03 Knows the quality management standards according to ISO 9000 series

PEU_W04 Knows the basic techniques and methods of quality management improvement.

relating to skills:

PEU_U01 Is able to apply quality improvement tools in hypothetical organizations.

PEU_U02 Can identify and evaluate the possibilities of using quality improvement tools in organizations.

PEU_U03 Can interpret the requirements of the ISO 9001:2015.

relating to social competences:

PEU_K01 Can search and choose the methods for solving problems in the workplace.

PEU_K02 Can individually improve the knowledge and understanding skills in the field.

PROGRAMME CONTENT		
Form of classes - lecture		Number of hours
Lec 1	Introduction to the lecture. Basic terms (quality, characteristics of quality, quality management)	2
Lec 2	Evolution of approaches to quality and quality management.	2
Lec 3	The concept of Kaizen.	2
Lec 4	Classic techniques of quality management.	2
Lec 5	New techniques of quality management.	2
Lec 6	The concept of quality management according to W. E. Deming.	2
Lec 7	Quality management according to the concept of Ph.B. Crosby.	2
Lec 8	Method. Other philosophers of quality management. Costs of quality.	2
Lec 9	The FMEA	2
Lec 10	The concept and principles of Total Quality Management - TQM.	2
Lec 11	TQM principles - continued.	2
Lec 12	Standard-setting bodies. Standardization of the quality management systems.	2
Lec 13	Requirements of the quality management according to the ISO 9001 standard.	2
Lec 14	The ISO 9001 auditing and certification. Other standards of quality management.	2
Lec 15	Summary of the lecture.	2
	Total hours	30

Form of classes – class		Number of hours
Cl 1	Introduction to the classes.	2
Cl 2	The classic techniques of quality management: the Ishikawa diagram.	2
Cl 3	The classic techniques of quality management: the Pareto-Lorenz diagram.	2
Cl 4	The classic techniques of quality management: the scatter diagram and histogram.	2
Cl 5	The classic techniques of quality management: the control chart $\bar{X}$ -R.	2
Cl 6	The modern techniques of quality management: the matrix diagram.	2
Cl 7	The modern techniques of quality management: the systematic diagram, the PDPC diagram.	2
Cl 8	Final test - part 1.	2
Cl 9	Analysis of the quality costs.	2
Cl 10	Process mapping.	2
Cl 11	Failures analysis, their effects and causes: the FMEA method.	2
Cl 12	Evaluation of customer satisfaction: CSI method.	2

Cl 13	Analysis of the requirements of the ISO 9001:2015 standard.	2
Cl 14	New techniques of quality management and another tools - additional tasks.	2
Cl 15	Final test - part 2.	2
	Total hours	30

TEACHING TOOLS USED	
N1. Traditional lecture - presentation using a slide projector.	
N2. Own work - independent literature studies and preparation for the final test.	
N3. Solving tasks during classes and at home.	

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_U03 PEU_K01, PEU_K02	Results of solving tasks during classes
F2	PEU_U01÷PEU_U03	Written test on the skills at using the quality management tools
F3	PEU_W01÷PEU_W04	Exam
P(Classes) = 0.6*F1+0.4*F2 P(Lecture)=F3		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Hoyle D., *Quality: Management Essentials*, Oxford; Burlington, MA: Butterworth-Heinemann, 2007.
- [2] Sujak-Cyruł B., *Quality Management System. An introduction to the Project of Documenting and Audit of Quality Management Systems*, Wrocław University of Technology, Wrocław 2011.
- [3] ISO 9001, *Quality management systems – Requirements. ISO*, 2015.

SECONDARY LITERATURE:

- [1] Evans J.R., Lindsay W.M., *Managing for Quality and Performance Excellence*, 10th Edition
- [2] Dahlgaard J.J., Kristenson K., Kanji G. K. , *Fundamentals of Quality management*, Taylor and Francis 2002.
- [3] Frankel E.G., *Quality decision management - the heart of effective futures-oriented management: a primer for effective decision-based management*, Springer Verlag, 2008.
- [5] ISO 9000, *Quality management systems - Fundamentals and vocabulary. ISO*, 2015.
- [4] Oakland J. S., *Total quality management: text with cases*, Elsevier, Amsterdam 2003.
- [5] www.ISO.org.
- [6] Selected articles from: „The TQM Journal”, „The Total Quality Management and Excellence”, „The International Journal of Quality and Reliability Management”, „Managing Service Quality”, „The International Journal of Operational & Production Management”, „Quality Progress”.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Anna Dobrowolska PhD, Ing. (Anna.Dobrowolska@pwr.edu.pl)

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Fizyka Środowiska Pracy**Name of subject in English:** Work Environment Physics**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st level, full-time**Kind of subject:** obligatory**Subject code:** W08ZZZ-SL8012**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		
Form of crediting	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 (P) classes		1	1		
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.0	0.5	0.5		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

None

SUBJECT OBJECTIVES

C1: Possessing the basic knowledge about physics of work environment, including ergonomics and work safety, needed for decision making in the field of management and organization of production

C2: acquiring skills of organizing work according to ergonomics and work safety principles in the field of assessment and optimization the impact of physical factors of the work environment.

SUBJECT LEARNING OUTCOMES

The scope of knowledge:

PEU_W01: knowing the fundamental physical processes that shape the work environment and understanding the effects of chosen environmental factors on the human body work and workload

PEU_W02: knowing the basic standards and legal regulations in the scope of physical environment factors.

The scope of skills:

PEU_U01: assessing the influence of physical environment factors and prevailing workload type and applying the basic methods of work optimization according to the results of the assessment

PEU_U02: determining and developing the legal and standard conditions of environment factors and ergonomics in Poland and the European Union on the basis of relevant documents

The scope of social competence:

PEU_K01: developing the skills of team cooperation for the optimal solution of problems assigned

PEU_K02: propositioning of flexible solutions for identified organizational problems.

PROGRAMME CONTENT

Lectures		Number of hours
Lec 1	Organizational issues. Introduction. Work environment and work environment physics - definition. Ergonomics –the history, aims and objectives, methods of ergonomic.	2
Lec 2	Human being in the work environment. Directive 89/391/EEC (minimal requirements for work safety and ergonomics).	2
Lec 3	Human-machine-work environment system. Fundamentals of design of work environment.	2
Lec 4	Work environment factors and their impact on human productivity. Microclimate - basic concepts, the impact on the human body and work productivity.	2
Lec 5	Physical parameters of microclimate. Methods of optimization of thermal comfort of employee.	2
Lec 6 Lec 7	Lighting. Eyesight and eye anatomy. Basic physical lighting and illumination parameters affecting the employee. The impact of lighting on worker productivity. Methods of optimization of lighting comfort of employee.	4
Lec 8	Sound - the basic physical parameters. Noise. Structure and function of the organ of hearing.	2
Lec 9	The impact of noise on humans. Prevention of noise.	2
Lec 10	Workspace of man. Variability of human anthropometric measurements. Recommendations for ergonomic work space design. Layout of workstation elements.	2

Lec 11	Posture at work. Factors determining the awkward postures. The consequences of awkward posture.	2
Lec 12	Working at the computer workstation. The recommended posture. Workspace organization. Requirements and recommendations for computer workstation.	2
Lec 13	Signal and control devices. Human information processing. Visual, audible, and tactile elements. Design of signalling and control elements. Basic principles of human-computer interaction	2
Lec14	Psychological stress and biomechanical workload. Methods for evaluation of workload and workload reduction.	2
Lec15	Written test	2
	Total hours	30

Classes		Number of hours
Cl 1	Introduction. Presentation of the aim and scope of team work (case study analysis) and criteria of student evaluation. Task 1: Selection of the object of the research (a specific workstation). Task 2: Presentation of the object of the research and formal tools to its evaluation. Task 3: Diagnostic research of object – environmental parameters of work (noise, lighting, thermal comfort), physical parameters of workstation (dimensions, layout) Task 4: Written report about the research results and their evaluation in context of formal requirements and principles of ergonomics. Task 5: Presentation of research results.	1
Cl 2	Consultations related to the selection of the research object, work environment factors and workload diagnostic tools. Brief (5-minute) group presentations of research objects (workstations), key environmental parameters and main workload factors.	2
Cl 3	Work in groups - consultations about problem issues, evaluation of the students' work progresses – noise.	2
Cl 4	Work in groups - consultations about problem issues, evaluation of the students' work progresses – lighting.	2
Cl 5	Work in groups - consultations about problem issues, evaluation of the students' work progresses – thermal comfort.	2
Cl6	Presentation of the results of the diagnostic research - case studies, discussion and evaluation of presentation.	4
Cl7	Summing up classes: discussing conclusions related to the assessment of written reports, students' presentations and their team work. The summary about diagnostic tools, analysis results.	2
	Total hours	15

Laboratory		Number of hours
Lab 1	Organizational issues.	1

Lab 2	Microclimate - computer simulation of microclimate factors for human thermal comfort.	2
Lab 3	Designing a computer workstation - computer analysis of the geometric parameters of the workstation computer.	2
Lab 4	Design of layout of work elements.	2
Lab 5	Lighting - simulation of lighting parameters in the workplace.	2
Lab 6	Laboratory testing of the man – machine system. The experiments should be provided in pairs.	4
La7	Summary. The review of diagnostic tools and methods. Evaluation of students' work made individually and in pairs.	2
	Total hours	15

TEACHING TOOLS USED	
N1. Lecture with multimedia tools N2. Laboratory – computer software, educational stations constructed in the Laboratory of Ergonomics N3. Working in groups during the classes and laboratories N4. Presentation of the research results during classes N5. Case study analysis	

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end))	Learning outcomes number	Way of evaluating educational effect achievement
F1	PEU_W01 – PEU_W02 PEU_U01–PEU_U02 PEU_K01 – PEU_K02	Activity
F2	PEU_W01 – PEU_W02	Short tests
F3	PEU_W01 – PEU_W02 PEU_U01 – PEU_U02 PEU_K01 – PEU_K02	Self-prepared presentations
F4	PEU_W01 – PEU_W02 PEU_U01 – PEU_U02 PEU_K01 – PEU_K02	Reports
F5	PEU_W01 – PEU_W02 PEU_U01 – PEU_U02	Written final test
P (lecture) = F5 P (laboratory) = 0,2 * F1 + 0,2 * F2 + 0,6 * F4 P (classes) = 0,2 * F1 + 0,2 * F3 + 0,6 * F4		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u> [1] Karwowski W. (ed.) et al., Human factors and ergonomics in consumer product design: methods and techniques, Boca Raton [etc.] : Taylor & Francis, 2011.
<u>SECONDARY LITERATURE:</u> [1] Guastello S.G., Human factors engineering and ergonomics : a systems approach. Lawrence Erlbaum Associates, 2006. McKeown C., Office ergonomics: practical applications, Boca Raton, FL, CRC Press, 2008. [2] Lehto M. R., Introduction to human factors and ergonomics for engineers Boca Raton, FL, CRC Press, 2013. [3] Norman D., The design of everyday things, Currency and Doubleday, 1990 [4] Nowak E., Atlas antropometryczny populacji polskiej - dane do projektowania. The Anthropometric Atlas of Polish Population - Data for Design, IWP Warszawa, 2001
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Katarzyna Jach, katarzyna.jach@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish:** Filozofia społeczna**Name of subject in English:** Social philosophy**Main field of study (if applicable):** Management**Specialization (if applicable):** Organizational Management**Profile:** academic**Level and form of studies:** 1st/ full-time**Kind of subject:** obligatory**Subject code** W08ZZZ-SL8095W**Group of courses** YES / 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)					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)	1.2				

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. No prerequisites.

SUBJECT OBJECTIVES

C1. To acquaint students with social philosophy as a specific kind of human knowledge.

C2. To analyse the fundamental social challenges of the modern world.

C3. To help students to improve their skills of critical and independent thinking.

C4. To present normative and descriptive considerations on the foundations of the social order.

C5. To present the determinants of engineering in the context of social responsibility of science and technology.

SUBJECT EDUCATIONAL EFFECTS**Relating to knowledge:**

PEU_W01: Knows and understands the fundamental dilemmas of modern civilization.

Relating to skills:

PEU_U01: Is able to participate in debates – present and critically assess different opinions and positions and discuss them.

Relating to social competences:

PEU_K01: Is ready to critically evaluate the content perceived.

PEU_K02: Is ready to initiate activities on behalf of the public interest.

PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Introduction (course aims, programme, requirements)	2
Lec 2	What is social philosophy?	2
Lec 3	The dilemma of freedom and social unity (1)	2
Lec 4	The dilemma of freedom and social unity (2)	2
Lec 5	Types of rationality	2
Lec 6	Fundamental social challenges of contemporary civilization (	2
Lec 7	Theories of democratic politics (1)	2
Lec 8	Theories of democratic politics (2)	2
Lec 9	Social systems (1)	2
Lec 10	Social systems (2)	2
Lec 11	Modernity	2
Lec 12	Globalization	2
Lec 13	Man	2
Lec 14	Colloquium and final presentations	2
Lec 15	Summary	2
	Total hours	30
TEACHING TOOLS USED		
N1. Conversational lecture supported by audio-visual materials N2. Individual work of students N3. Group work of students N4. Discussion N 5. Analysis of documentaries		

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	Colloquium, activity in class
F2	PEU_U01 PEU_K01 PEU_K02	Presentation with discussion
$P = (F1 + F2)/2$		
PRIMARY AND SECONDARY LITERATURE		

PRIMARY LITERATURE:

1. Blackburn S., *Ethics: A Very Short Introduction*, Oxford University Press (2009)
2. Sandel M.J., *Justice: What's the Right Thing to Do?*, Farrar, Straus and Giroux (2009)
3. Simon R.L., *The Blackwell guide to social and political philosophy*, Blackwell (2002)
4. Singer P., *Practical Ethics*, Cambridge University Press (1993)
5. Stanford Encyclopedia of Philosophy, <https://plato.stanford.edu/>
6. Warburton N., *Philosophy: The Basics*, Routledge (1999)

SECONDARY LITERATURE:

1. Aristotle, *Nicomachean Ethics*, various editions
2. Bentham J., *An Introduction to the Principles of Morals and Legislation*, various editions
3. Kant I., *Groundwork of the Metaphysic of Morals*, various editions
4. Locke J. *Second Treatise on Civil Government*, various editions
5. Mill J.S., *On Liberty*, various editions
6. Nozick R., *Anarchy, State and Utopia*, various editions
7. Plato, *Republic*, various editions
8. Rawls R., *Theory of Justice*, various editions
9. Singer P., *Ethics in the Real World: 82 Brief Essays on Things That Matter*, Princeton University Press (2016)

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

dr Mateusz Kotowski, mateusz.kotowski@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Mikrostruktura globalnego rynku finansowego****Name of subject in English: The microstructure of global financial market****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: Academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8097S****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 (P) classes					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1.2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of the functioning of the financial market

SUBJECT OBJECTIVES

C1: Improving the ability to use the basic techniques of empirical and quantitative modeling of financial and economic systems.

C2: Deepening the ability to interpret patterns in financial systems and their importance for the economy.

SUBJECT LEARNING OUTCOMES

relating to skills:

PEU_U01: Student is able - using his knowledge and appropriate sources - to correctly diagnose and interpret economic processes, in particular in the context of financial aspects;

PEU_U02: Student is able to interpret and analyze patterns in financial systems.

PEU_U03: Student is able to use the basic techniques of empirical analysis and quantitative modeling of financial and economic systems.

relating to social competences:
 PEU_K01: Student analyzes phenomena on the financial market in a comprehensive and independent manner, seeing problems and taking into account current conditions
 PEU_K02: Students is able to function in various roles in decision-making processes in the company.

PROGRAMME CONTENT

Form of classes - seminar		Number of hours
Sem 1	Discussion of the course completion criteria and the main work stages. Organizational issues. Introduction to the discussed issues.	2
Sem 2	The role of financial markets in the economy. Financial market participants.	2
Sem 3	Efficient market hypothesis. Information efficiency.	2
Sem 4	Dynamic processes in financial markets. Introduction to reaction-diffusion dynamics.	4
Sem 5	Theory of Speculation by Louis Bachelier. Levy walks; power law distributions.	4
Sem 6	Financial time series and stochastic models of price dynamics.	4
Sem 7	Wealth exchange dynamics in financial markets. Pareto principle.	4
Sem 8	Complex networks among financial market participants.	2
Sem 9	Socio-economic models. Self-organizing dynamics.	2
Sem 10	A simple case study: Using machine learning for a business problem	2
Sem 11	Summary of classes and credit.	2
	Total hours	30

TEACHING TOOLS USED

N1. Knowledge transfer with the use of multimedia (teaching person).
 N2. Student self-studying: preparatory work for seminar classes.
 N3. Discussion.
 N4. Problem solving exercises.
 N5. Simulation Game/Simulation.
 N6. Presentation developed solutions with the use of multimedia (students).

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 PEU_U03 PEU_K01 PEU_K02	Evaluation of developed solutions. Discussion
F2	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Presentations prepared by students

$$P = 0.5 \cdot F_1 + 0.5 \cdot F_2$$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

- [1] Joseph McCauley. Dynamics of Markets, Econophysics and Finance, Cambridge University Press (Cambridge, UK, 2004)
- [2] Rosario N. Mantegna, H. Eugene Stanley. An Introduction to Econophysics: Correlations and Complexity in Finance, Cambridge University Press (Cambridge, UK, 1999)
- [3] Arnab Chatterjee, Sudhakar Yarlagadda, Bikas K Chakrabarti. Econophysics of Wealth Distributions, Springer-Verlag Italia (Milan, 2005)

SECONDARY LITERATURE:

- [1] Bertrand Roehner. Patterns of Speculation - A Study in Observational Econophysics, Cambridge University Press (Cambridge, UK, 2002)
- [2] Anatoly V. Kondratenko. Physical Modeling of Economic Systems. Classical and Quantum Economies. Novosibirsk, Nauka (Science) (2005), ISBN 5-02-032479-5
- [3] Anatoly V. Kondratenko. Probabilistic Theory of Stock Exchanges. Novosibirsk, Nauka (Science) (2021), ISBN 978-5-02-041486-0

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Pratik Mullick, pratik.mullick@pwr.edu.pl

*delete if not necessary

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish Autoprezentacja****Name of subject in English Self-presentation****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management.****Profile: academic / practical*****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code W08ZZZ-SL8098S****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	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / 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)					
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1,2

*delete as not necessary

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

A lack of prerequisites

SUBJECT OBJECTIVES

C1. Improving the ability to freely present oneself and substantive content in accordance with the planned goal in various social situations, including professional ones

C2. Acquiring the ability to prepare and conduct a speech in a coherent and attractive way for the audience, and to establish contact with and control the audience.

C3. Developing 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 knowledge:**

PEU_W01: Knows the characteristics of an efficient communication process.

Relating to skills:

PEU_U01: Is able to plan and organise work – individually and in a team.

Relating to social competences:

PEU_K01: Is ready to fulfil one's social obligations, inspire and organise activities on behalf of society and is ready to initiate activities on behalf of the public interest.

PEU_K02: Is prepared to communicate and defend his own views in the name of achieving common goals.

PEU_K03: Is prepared to behave in a professional and ethical manner.

PROGRAMME CONTENT

Seminar		Number of hours
Semin 1	Self-presentation and public speaking - introduction to the classes: presentation of the aim and effects of the course, getting to know students' expectations, expectations of the labor market - key competences, rules of work on the course and its completion	2
Semin 2	My speaker's workshop: self-analysis; attribution.	2
Semin 3	Self-presentation tactics - practice what skills I can develop to achieve the intended goals - debate and simultaneous game	2
Semin 4	Nonverbal communication (including body language and magic of voice) - role playing, problem analysis, case study	2
Semin 5	Meaning and role of emotions - role playing, problem analysis	2
Semin 6	Communication focused on cooperation. Defending your own opinion - building good contact, the ladder of reasoning - from facts to conclusions, needs analysis - as a tool for building arguments in negotiations, the use of linguistic techniques to build an advantage	2
Semin 7	Rhetoric. How to make them listen and understand what I mean? - gamification	2
Semin 8	Apparition. How the elements of communication are received - problem analysis, case studies	2
Semin 9	Effective message - structure and elements of a good speech – case studies	2
Semin 10-13	Self-presentation and public speaking in academic, professional and other situations – Public speaking at conferences, product presentations, job interviews, media interviews, business meetings, daily communication in the team - experience real situations and dialogues	8
Semin 14	Dealing with your audience. Crisis situations in the speech. Appearances in crisis situations. – role playing, problem analysis, case studies	2
Semin 15	Final presentation.	2
	Total hours	30

TEACHING TOOLS USED

N1. Mini-lecture (Presentation with the use of slides)

N2. Working in groups and pairs

N3. Six Thinking Hats

N4. Brainstorming

N5. Discussion

N6. Case studies

N7. Role-play

N8. Gamification

N9. Student's own work - individual 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_K01 PEU_K02 PEU_K03	Final presentation
F2	PEU_W01 PEU_U01 PEU_K01 PEU_K02 PEU_K03	Active participation in classes
$P = (F1+F2)/2$		

PRIMARY AND SECONDARY LITERATURE

LITERATURA PODSTAWOWA:

- [1] Przemysław Kutnyj „Sztuka autoprezentacji i wystąpień publicznych”, Wydawnictwo Naukowe PWN, Warszawa 2020.
- [2] Bogdan Wojciszke, „Człowiek wśród ludzi”, Park, Bielsko-Biała 2004.
- [3] J. Kevin Morreale, Sherwyn P.; Spitzberg, Brian H.; Barge, „Komunikacja między ludźmi. Motywacja, wiedza, umiejętności”, Wydawnictwo Naukowe PWN, Warszawa 2015.

LITERATURA UZUPEŁNIAJĄCA:

- [1] Esposito J.E. „Nigdy więcej tremy. Jak przełamać lęk przed wystąpieniami publicznymi”, Onepress, Gliwice 2010.
- [2] Rzędowska A, Rzędowski J. „Mówca doskonały. Wystąpienia publiczne w praktyce”, Onepress Gliwice 2013.
- [3] Campbell G. M. „Jak przygotować profesjonalną prezentację”, Wolters Kluwer, Warszawa 2007.
- [4] Mark Leary „Wywieranie wrażenia na innych”, Wydawnictwo GWP, Gdańsk 2004.
- [5] Peter F. Anthonissen (red) „Komunikacja kryzysowa”, Wolters Kluwer Warszawa 2010.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)Mgr Anna Kaczmarek, a.kaczmarek@pwr.edu.plDr Katarzyna Zahorodna, katarzyna.zahorodna@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Zarządzanie wiedzą w organizacji****Name of subject in English: Knowledge management in the organization****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: Academic****Level and form of studies: 1st level, full-time studies****Kind of subject: obligatory****Subject code: W08ZZZ-SL8096S****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 (P) classes					2
including number of ECTS points corresponding to classes that require direct participation of lecturers and other academics (BU)					1.2

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Lack

SUBJECT OBJECTIVES

C1: Improving the ability to use the basic measuring knowledge and intellectual capital in a enterprises.

C2: Deepening the ability to analyze the relationship between knowledge management and organizational culture on the innovativeness of the organization.

SUBJECT LEARNING OUTCOMES

relating to skills:

PEU_U01: Student is able to identify and evaluate individual processes of knowledge management in the enterprise.

PEU_U02: Student is able to identify and evaluate key tangible and intangible resources in the enterprise that affect the innovativeness of the organization.

PEU_U03: Student is able to apply the basic tools for measuring knowledge and intellectual capital in an enterprise.

relating to social competences:

PEU_K01: Students is able to work in a group and carry out tasks together.

PEU_K02: Students is able to function in various roles in decision-making processes in the company.

PROGRAMME CONTENT

Form of classes - seminar		Number of hours
Sem 1	Discussion of the course completion criteria and the main work stages. Organizational issues. Introduction to the discussed issues.	2
Sem 2	Intangible assets of the enterprise. Knowledge as a strategic resource of a modern enterprise. The essence and features of knowledge. Knowledge strategies.	4
Sem 3	Predictors tacit and explicit knowledge sharing.	2
Sem 4	Knowledge Retention Strategy - Human and Intellectual Capital.	2
Sem 5	Methods of measuring the intellectual capital of a company.	2
Sem 6	Knowledge management and organizational culture.	2
Sem 7	The role of knowledge and intellectual capital in building the innovativeness of the enterprise	4
Sem 8	Reimagining Leadership for the Digital Age: New Practices and Approaches.	4
Sem 9	Human-centred innovation ecosystems.	2
Sem 10	The essence of a learning organization	4
Sem 11	Summary of classes and credit.	2
	Total hours	30

TEACHING TOOLS USED

- N1. Knowledge transfer with the use of multimedia (teaching person).
 N2. Student self-studying: preparatory work for seminar classes.
 N3. Discussion.
 N4. Problem solving exercises.
 N5. Simulation Game/Simulation.
 N6. Presentation developed solutions with the use of multimedia (students).

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 PEU_U03 PEU_K01 PEU_K02	Evaluation of developed solutions. Discussion
F2	PEU_U01 PEU_U02 PEU_U03 PEU_K01 PEU_K02	Presentations prepared by students

$$P = 0.5 * F1 + 0.5 * F2$$

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

[1] Thomas, A. and Gupta, V. (2022), "Tacit knowledge in organizations: bibliometrics and a framework-based systematic review of antecedents, outcomes, theories, methods and future directions", *Journal of Knowledge Management*, Vol. 26 No. 4, pp. 1014-1041.

[2] Nonaka, I. ed., 2005. *Knowledge management: critical perspectives on business and management* (Vol. 2). Taylor & Francis.

[3] Davenport, T.H. and Glaser, J., 2002. Just-in-time delivery comes to knowledge management. *Harvard business review*, 80(7), pp.107-11.

SECONDARY LITERATURE:

[1] Tabrizi, B., Lam, E., Girard, K. and Irvin, V., 2019. Digital transformation is not about technology. *Harvard business review*, 13(March), pp.1-6.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Asha Thomas, asha.thomas@pwr.edu.pl

FACULTY OF MANAGEMENT**SUBJECT CARD****Name of subject in Polish: Analiza systemów informacyjnych****Name of subject in English: Information Systems Analysis****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Profile: academic****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code: W08ZZZ-SL8078****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)	25			25	
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)	0.6			0.6	

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge about the management essentials and information and communication technologies (ICT).

SUBJECT OBJECTIVES

C1 To provide an organizational context and background for the information system.

C2 To introduce the concepts of information systems, methods of their analysis and tools used for this purpose.

SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEU_W01 Knows and understands the business context of information system.

PEU_W02 Knows the methods of information requirements gathering

PEU_W03 Knows a typical Information Systems Development Life Cycle (SDLC) and principles of information strategy planning.

relating to skills:

PEU_U01 Can identify, analyse and solve problems related to information systems.

PEU_U02 Can gather and analyse the information requirements for systems and state the direction of their changes.

relating to social competences:		
PEU_K01 – Is aware of the necessity of development of own knowledge and professional skills.		
PROGRAMME CONTENT		
Lecture		Number of hours
Lec 1	Introduction to the lecture. Discussing the conditions of obtaining credit.	1
Lec 2	Introduction to information systems. Components of information system and its business context.	2
Lec 3	Information Systems Development Life Cycles (SDLC) models. Information system architecture.	2
Lec 4	Alternative perspectives of information system analysis. Different types of requirements.	2
Lec 5 Lec 6	Methods of information requirements gathering.	4
Lec 7	Information requirements analysis and specification process. Test	2
Lec 8	Information strategy planning. Retake.	2
	Total hours	15
Project		Number of hours
Proj 1	Introduction to the project. Discussing the conditions of obtaining credit.	1
Proj 2	Information system components identification for organisations. Information system analysis from the stakeholder and analytics perspective.	2
Proj 3	Project for system requirements identification in the organisations.	2
Proj 4	Development of the tools for information requirements gathering.	2
Proj 5	Requirements analysis.	2
Proj 6	Requirements specification.	2
Proj 7	Information strategy planning.	2
Proj 8	Project outcomes presentation.	2
	Total hours	15
TEACHING TOOLS USED		
N1. Lecture with multimedia presentations N2. Test N3. Student's home work N4. Discussion during project N5. Project outcomes presentation		

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_W03	test
F2	PEU_U01, PEU_U02, PEU_K01	preparation for each task
F3	PEU_K01	project outcomes presentation
P(lecture) = F1 P(project) = 0,7*F2+0,3*y		
PRIMARY AND SECONDARY LITERATURE		
<u>PRIMARY LITERATURE:</u>		
[1] Kendall, K.E., Kendall, J.E., Systems Analysis & Design, 10th ed., Pearson, 2019.		
[2] Chaffey, D., White, D., Business Information Management, 2nd ed., Pearson Education, 2011.		
<u>SECONDARY LITERATURE:</u>		
[1] Cadle J., Paul D., Turner P., Business Analysis Techniques, British Informatics Society, Swindon, 2010		
[2] Maciaszek, L., Requirements Analysis and Systems Design, 3rd ed. Pearson Education, 2007.		
[3] Stair R., Reynolds G., Principles of Information Systems, Course Technology, 2013.		
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)		
Ewa Prałat, ewa.pralat@pwr.edu.pl		
Maria Galant-Pater, maria.galant-pater@pwr.wroc.pl		