## Zał. nr 3 do ZW 25/2019

Attachment no. .... to Program of Studies

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

## 1. General description

1.1 Number of semesters: <b>6</b>	<i>1.2 Total number of ECTS points necessary to complete studies at a given level:</i> <b>180</b>
1.3 Total number of hours: <b>1965</b>	<ul> <li>1.4 Prerequisites (particularly for second-level studies):</li> <li>According to the resolution No. 472/21/2016-2020 of PWr Senate. from 17 May 2018</li> <li>According to the resolution No. 576/27/2016-202 of PWr Senate. from 20 December 2018</li> </ul>
1.5 Upon completion of studies graduate obtains professional degree of: <b>bachelor</b>	<ul> <li>1.6 Graduate profile, employability:</li> <li>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 behavior of employees and apply standard techniques of directing such behavior. 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 and management, as well as</li> </ul>

	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: 2nd level studies	<ul> <li>1.8 Indicate connection with University's mission and its development strategy: Courses in Management are carried out within the Faculty of Computer Science and Management at Wrocław University of Science and Technology. Although, such a subject lies in the field of social science, it lies directly within the mission and development strategy of a technical university. The educational program in Management is coherent with the mission of Wrocław University of Science and Technology in the following areas:</li> <li>Developing creative, critical and tolerant graduates, as studying a course in management develops these traits;</li> <li>Aiming to provide high quality courses and providing the students of Management and lecturers with conditions enabling open discussion and constructive criticism;</li> <li>Developing the values and tradition of higher education, wide-ranging cooperation with other universities via students taking part in the Erasmus program and with employers via practical learning, carried out in the form of projects in specific organizations;</li> <li>Aiming to make an impact on the national and international scene in the area of educating specialists in the field of management. The development plan of the department is in line with</li> </ul>

 $^{2}$ Traditional – enter T, remote – enter Z

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses
 <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
 <sup>7</sup> Optional – enter W, obligatory – enter Ob

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

the strategy of the university as a whole. In particular, the
department "connects theoretical, research and specialist
abilities with educational and teaching skills. The department
is a leading research and teaching center in Poland and an
important center on the international scene. Its teaching and
research profile, together with the quality of the courses and
research carried out in economics and technical science,
ensures it an appropriately high position in national and
international rankings". Teaching courses in management is
one of the long standing elements in the department's
development strategy. In accordance with the decisions made
at Wrocław University of Science and Technology, our
courses in management have an interdisciplinary nature. The
program satisfies all the conditions stipulated in current
legislation and is also in accordance with the National
Educational Plan in the field of social science. In line with
the university's strategy, in order to increase the attractiveness
of our courses on the educational market, our programs in
management have a unique character, since they make use of
the natural - in business practice - complementarity of
technical science and economics, enriched with the element
of computer science. In accordance with the university's
strategy and the department's development plan, which
indicates the need for interaction with the region and its
economy, they created 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
In the with the university's development strategy, the

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

quality of our courses is being improved in all aspects. 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 theaters, audio-visual equipment and computer
laboratories.

- 2. Detailed description
  - 2.1 Total number of learning outcomes in the program of study:

W (knowledge) = 27+10, U (skills) = 17+10, K (competences) = 7, W + U + K = 71

- 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 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 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 faculty is assigned (must be greater than 50% of the total number of ECTS points from 1.1) ...170 ECTS......

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- <sup>7</sup> Optional enter W, obligatory enter Ob

<sup>&</sup>lt;sup>1</sup>BK - number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

## 2.4b. For the practical profile 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 1.1)

## 2.5 Concise analysis of compliance of the assumed learning outcomes with the needs of the labor market

The educational goals 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 BK<sup>1</sup> code) ...175.... ECTS

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

- $^{2}$ Traditional enter T, remote enter Z
- ${}^{3}$ Exam enter E, crediting enter Z. For the group of courses after the letter E or Z enter in brackets the final course form (lec, cl, lab, pr, sem)  ${}^{4}$ University-wide course /group of courses enter O
- <sup>5</sup>Practical course / group of courses enter P. For the group of courses in brackets enter the number of ECTS points assigned to practical courses
- <sup>6</sup> KO general education, PD basic sciences, K field-of-studies, S specialization
- <sup>7</sup> Optional enter W, obligatory enter Ob

## 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 laboratory classes** (enter total number of ECTS points for courses/group of courses denoted with code P)

Number of ECTS points for obligatory subjects	48
Number of ECTS points for optional subjects	41
Total number of ECTS points	89

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 OG)

5..... ECTS points

2.10. Total number of ECTS points, which student may obtain doing optional blocks (min. 30% of total number of ECTS points) 51...... ECTS points

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

The process leading to achievement of the assumed learning outcomes for the main field of studies includes active participation in the classes organized at the university: lectures, classes, laboratories, projects and seminars, as well as self-studies enabling consolidation,

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<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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supplementation and extension of knowledge. If necessary, the student may use individual consultations. Learning outcomes in terms of skills are further developed during obligatory student training program.

## 4. List of education blocks: 4.1. List of obligatory blocks:

## 4.1.1 List of general education blocks

4.1.1.1 Liberal-managerial subjects block (min. ...6... ECTS points):

No	. Course/group	Name of course/group of courses	We	eekly	numb	er of l	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of			oup of cour	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	PSZ1119W	Psychology	2						30	30	1	1,0	Т	Z			KO	Ob
2	SCZ2506W	Sociology	2						30	30	2	2,0	Т	Ζ			KO	Ob
3	PSZ1157S	Communication in management					2		30	90	3	1,0	Т	Ζ		Р	KO	W
		Total	4	0	0	0	2		90	150	6	4,0						

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

No	. Course/group	Name of course/group of courses	We	eekly	numb	er of	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
P	-	Total																

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

 ${}^{3}$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)  ${}^{4}$ University-wide course /group of courses – enter O

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Learning	Numbe	r of hours	Numł	Number of ECTS points		Way <sup>3</sup> of				
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
		Total																

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

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

No.	Course/group	Name of course/group of courses	We	ekly	5		Learning	Number	of hours	Numb	per of ECTS points	Form <sup>2</sup> of	Way3 of	Course/gr	oup of cou	rses		
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	IEZ1148W	Information technology	2						30	60	2	1,0	Т	Ζ			Κ	Ob
2	IEZ1148L	Information technology			1				15	60	2	0,5	Т	Ζ		Р	Κ	Ob
-	-	Total	2	0	1	0	0		45	120	4	1,5						

## Altogether for general education blocks

	To	otal number o	of hours		Total number of ZZU hours	Total number of CNPS hours		Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
6	0	1	0	2	165	360	13	6,5

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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## 4.1.2 List of basic sciences blocks

## 4.1.2.1 Mathematics block

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Learning	Numbe	r of hours	Numl	per of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	MAZ1130W	Descriptive statistics	2						30	120	4	1,0	Т	Е			PD	Ob
2	MAZ1130C	Descriptive statistics		1					15	60	2	0,5	Т	Z		Р	PD	Ob
3	MAZ1146W	Mathematical Economics	2						30	120	4	1,0	Т	Е			PD	Ob
4	MAZ1146C	Mathematical Economics		1					15	60	2	0,5	Т	Z		Р	PD	Ob
5	MAT1448	Matematyka (GK)	2	2					60	270	9	2,0	Т	Е			PD	Ob
		Total	6	4	0	0	0		150	630	21	5,0						

## 4.1.2.2 Physics block

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Learning	Numbe	r of hours	Numł	per of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	FZZ2503W	Work environment physics	2						30	50	2	1,0	Т	Z			PD	Ob
2	FZZ2503C	Work environment physics		1					15	30	1	0,5	Т	Z		Р	PD	Ob
3	FZZ2503L	Work environment physics			1				15	30	1	0,5	Т	Z		Р	PD	Ob
		Total	2	1	1	0	0		60	110	4	2,0						

#### 4.1.2.3 Chemistry block

Ν	o. Course/group	Name of course/group of courses	We	eekly	numb	er of	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	ses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>

<sup>1</sup>BK - number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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	Total								

other.....

Altogether for basic sciences blocks:

	Τc	otal number o	of hours			Total number of CNPS hours		Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
8	5	1	0	0	210	740	25	7,0

## 4.1.3 List of main-field-of-study blocks

### 4.1.3.1 Obligatory main-field-of-study blocks

No.	Course/group		We	eekly 1	numbe	r of l	nours	Learning	Numbe	r of hours	Numl	per of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	ZMZ1256D	Bachelor thesis				2			30	420	14	0,0	Т	Z		Р	Κ	Ob
2	PRZ1121W	Civil and commercial law	2						30	60	2	1,0	Т	Z			К	Ob
3	PRZ1121C	Civil and commercial law		1					15	60	2	0,5	Т	Z		Р	Κ	Ob
4	FBZ1152W	Corporate finance	2						30	90	3	1,0	Т	E			Κ	Ob
5	FBZ1152C	Corporate finance		1					15	60	2	0,5	Т	Z		Р	Κ	Ob
6	FBZ1150W	Essentials of finance	2						30	60	2	1,0	Т	Z			K	Ob
7	ZMZ1242W	Essentials of management	2						30	120	4	1,0	Т	E			Κ	Ob
8	ZMZ1242C	Essentials of management		2					30	60	2	1,0	Т	Z		Р	К	Ob
9	FBZ1154W	Financial analysis supported by computer	1						15	60	2	0,5	Т	Z			Κ	Ob
10	FBZ1154L	Financial analysis supported by computer			1				15	60	2	0,5	Т	Z		Р	Κ	Ob
11	FBZ1153	Financial management	2						30	60	2	1,0	Т	Z			Κ	Ob
12	FBZ1153C	Financial management		1					15	30	1	0,5	Т	Z		Р	Κ	Ob
13	ZMZ2623Q	Internship (4th lub 5th semester)							0	160	5	0,0				Р		Ob

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<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

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14	ZMZ1247W	Logistics	1					15	30	1	0,5	Т	Z		К	Ob
15	ZMZ1247C	Logistics		1				15	30	1	0,5	Т	Z	Р	К	Ob
16	EKZ1182W	Macroeconomics	2					30	120	4	1,0	Т	E		K	Ob
17	EKZ1182C	Macroeconomics		1				15	60	2	0,5	Т	Z	Р	K	Ob
18	IEZ1228W	Information Systems in Management	2					30	90	3	1,0	Т	Z		К	Ob
19	IEZ1228L	Information Systems in Management			1			15	60	2	0,5	Т	Z	Р	К	Ob
20	ZMZ1257L	Management training			2			30	60	2	1,0	Т	Z	Р	К	Ob
21	ZMZ1248W	Marketing management	1					15	30	1	0,5	Т	Z		К	Ob
22	ZMZ1248C	Marketing management		1				15	30	1	0,5	Т	Z	Р	K	Ob
23	ZMZ1252	Marketing research	2					30	60	2	1,0	Т	Z		К	Ob
24	ZMZ1252C	Marketing research		2				30	90	3	1,0	Т	Z	Р	К	Ob
25	EKZ1127W	Microeconomics	2					30	120	4	1,0	Т	E		К	Ob
26	EKZ1127C	Microeconomics		2				30	60	2	1,0	Т	Z	Р	К	Ob
27	ZMZ1249W	Operations management	1					15	60	2	0,5	Т	E		K	Ob
28	ZMZ1249C	Operations management		1				15	30	1	0,5	Т	Z	Р	К	Ob
29	ZMZ1249L	Operations management			1			15	30	1	0,5	Т	Z	Р	К	Ob
30	ZMZ1245W	Organizational behaviour	2					30	60	2	1,0	Т	Z		К	Ob
31	ZMZ1245C	Organizational behaviour		1				15	60	2	0,5	Т	Z		К	Ob
32	ZMZ1243W	Organizational science	2					30	60	2	1,0	Т	Z		К	Ob
33	ZMZ1243C	Organizational science		1				15	30	1	0,5	Т	Z	Р	К	Ob
34	ZMZ1258W	Business Process Management	2					30	60	2	1,0	Т	Z		К	Ob
35	ZMZ1255W	Total quality management	2					30	90	3	1,0	Т	E		K	Ob
36	ZMZ1255C	Total quality management		2				30	60	2	1,0	Т	Z	Р	K	Ob
		Total	30	17	5	2	0	810	2680	89	26,0					

## 4.1.3.2 ..... block

No.	Course/group	Name of course/group of courses	We	ekly	numbe	er of i	hours	0	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of			oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
		Total																

#### Altogether (for main-field-of-study blocks):

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

	Tota	l number of	hours		Total number of ZZU hours	Total number of CNPS hours		Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
30	17	5	2	0	810	2680	89	26,0

## 4.2 List of optional blocks

## 4.2.1 List of general education blocks

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

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical5	kind <sup>6</sup>	type <sup>7</sup>
		Total																

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

No.	Course/group	Name of course/group of courses	We	ekly	numbe	er of l	hours	Learning	Numbe	r of hours	Numl	ber of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	JZL	Foreingn language B2.1		4					60	60	2	2,0	Т	Z	0	Р	KO	W
2	JZL	Foreingn language B2.2		4					60	90	3	3,0	Т	Z	0	Р	KO	W
		Total	0	8	0	0	0		120	150	5	5,0						

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

No. Course/group Name of course/group of courses Weekly number of hours Learning Number of hours Number of ECTS points Form <sup>2</sup> of Way <sup>3</sup> of Course/group of courses	No.	Course/group	Name of course/group of courses	Weekly number of hours	Learning	Number of hours	Number of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/group of courses
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<sup>1</sup>BK - number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^2 Traditional \ - \ enter \ T, \ remote \ - \ enter \ Z$ 

 $^{3}$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)  $^{4}$ University-wide course /group of courses – enter O

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	WFW	Sport activities		2					30	30	0	0,0	Т	Ζ	0	Р	KO	W
2	WFW	Sport activities		2					30	30	0	0,0	Т	Ζ	0	Р	KO	W
		Total	0	4	0	0	0		60	60	0	0,0						

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

		0	0			1			1	/								
No	Course/group	Name of course/group of courses	We	ekly	numbe	er of l	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	2	U	oup of cour	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
		Total																

#### Altogether for general education blocks:

		Tot	al number of	hours ?		Total number of ZZU hours		Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
1	ec	cl	lab	pr	sem				
	0	12	0	0	0	180	210	5	5,0

## 4.2.2 List of basic sciences blocks

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

 $^{3}$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)  $^{4}$ University-wide course /group of courses – enter O

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

4.2.2.1 Mathematics	block	( <i>min</i>	ECTS	points):
---------------------	-------	--------------	------	----------

			(				r											
N	o. Course/group	Name of course/group of courses	We	ekly	numb	er of i	hours	Learning	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	Way3 of	Course/gr	oup of cour	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide4	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
				$\square$														
				$\square$														
		Total																

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

No	Course/group	Name of course/group of courses	We	ekly	numbe	er of i	hours	Learning	Numbe	er of hours	Num	ber of ECTS points	Form <sup>2</sup> of	~	U	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
		Total																

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

No.	Course/group	Name of course/group of courses	We	eekly	numb	er of I	hours	Learning	Numbe	er of hours	Num	ber of ECTS points	Form <sup>2</sup> of	2	U	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide4	practical5	kind <sup>6</sup>	type <sup>7</sup>
		Total																

#### Altogether for basic sciences blocks:

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

 ${}^{3}Exam - enter E$ , crediting - enter Z. For the group of courses - after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)  ${}^{4}University$ -wide course /group of courses - enter O

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

	To	otal number o	of hours		Total number of ZZU hours	Total number of CNPS hours	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem			

## 4.2.3 List of main-field-of-study blocks

**4.2.3.1** ..... **block** (*min.* .... *ECTS points*):

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	0	Numbe	r of hours	Num	ber of ECTS points	Form <sup>2</sup> of	Way <sup>3</sup> of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol <b>GK</b> )	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical5	kind <sup>6</sup>	type <sup>7</sup>
1	ZMZ1250S	Diploma seminar					1		15	30	1	0,5	Т	Z		Р	K	Ob
		Total	0	0	0	0	1		15	30	1	0,5						

•••••

#### Altogether for main-field-of-study blocks:

	Τc	otal number o	of hours		Total number of ZZU hours	Total number of CNPS hours		Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
0	0	0	0	1	15	30	1	0,5

## 4.2.4 List of specialization blocks

4.2.4.1 Specialization subjects (e.g. whole specialization) blocks (min. ..27.. ECTS points):

<sup>1</sup>BK - number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO - general education, PD - basic sciences, K - field-of-studies, S - specialization

No.	Course/group	Name of course/group of courses (denote	We	ekly	numb	er of	hours	Learning	Numbe	er of hours	Numl	per of ECTS points	Form <sup>2</sup> of		Course/gr	roup of cou	rses	
	of courses code	group of courses with symbol GK)	lec	cl	lab	pr	sem	effect symbol	ZZU	CNPS	total	BK classes <sup>1</sup>	course/group of courses	crediting	university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	ZMZ1246W	Contemporary organizational methods and techniques	1						15	30	1	0,5	Т	Z			S	Ob
2	ZMZ12460	Contemporary organizational methods and techniques		1					15	30	1	0,5	Т	Z		Р	S	Ob
3		Financial accounting in the organizational decision making process	2						30	60	2	1,0	Т	Z			S	Ob
4	FBZ1151C	Financial accounting in the organizational decision making process		1					15	60	2	0,5	Т	Z		Р	S	Ob
5	EKZ1129W	Introduction to risk management	1						15	30	1	0,5	Т	Z			S	Ob
6	EKZ1129C	Introduction to risk management		1					15	60	2	0,5	Т	Z		Р	S	Ob
7	ZMZ1251	Leading project in modern organizations	2						30	90	3	1,0	Т	Е			S	Ob
8	ZMZ1251C	Leading project in modern organizations		1					15	60	2	0,5	Т	Z		Р	S	Ob
9	ZMZ1244W	Marketing in the information society	2						30	120	4	1,0	Т	Е			S	Ob
10	ZMZ1244C	Marketing in the information society		2					30	60	2	1,0	Т	Z		Р	S	Ob
11	ZMZ1253W	Methods and Tools of Data Analysis	1						15	30	1	0,5	Т	Z			S	Ob
12	ZMZ1253L	Methods and Tools of Data Analysis			1				15	60	2	0,5	Т	Z		Р	S	Ob
13	ZMZ1254W	Modern human resorce management	2						30	60	2	1,0	Т	Z			S	Ob
14	ZMZ1254C	Modern human resorce management		2					30	60	2	1,0	Т	Z		Р	S	Ob
		Total	11	8	1	0	0		300	810	27	10,0						

4.2.4.2 Blocks (e.g. diploma profile) block (min. ..23.. ECTS points):

	Course/gro up of	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours	Learning		ber of urs		of ECTS ints	Form <sup>2</sup> of	Way <sup>3</sup>	(	Course/grou	p of courses	3
No.	courses code		lec c l p s l a r e b m	effect symbol	ZZU	CNPS	total	BK classes	course/ group of	creditin g -	universi ty-	practical 5	kind <sup>6</sup>	type <sup>7</sup>

 $^{2}$ Traditional – enter T, remote – enter Z

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

												courses		wide <sup>4</sup>		
1	IEZ	Computer science block	7	2	5	0	0	210	450	15	7,0	Т	Z		S	W
2	EKZ	Economic science block	2	1				45	120	4	1,5	Т	Z		S	W
3	PRZ	Legal science blocke	2	2				60	120	4	2,0	Т	Ζ		S	W
		Total	11	5	5	0	0	315	690	23	10,5					

## Blocks

Ne	Course/gro	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	We	2	numbe ours	er of	Learning		mber of nours		of ECTS ints	Form <sup>2</sup> of course/	of Way <sup>3</sup>		Course/group of courses			
No.	up of courses code		le c	с 1	l r a 1 b		symbol	ZZ U	CNPS	total	BK classes	group of courses	creditin g -	universi ty- wide <sup>4</sup>	practical 5	kind <sup>6</sup>	type <sup>7</sup>	
		Computer science block (2 semester)	1		2			45	120	4								
1	IEZ1208W	Data processing technology	1					15	60	2	0,5	Т	Z			S	W	
2	IEZ1208L	Data processing technology			2			30	60	2	1,0	Т	Z		Р	S	W	
		Computer science block (3 semester)	2		2			60	120	4								
1	IEZ1211W	Programming applications	2					30	60	2	1,0	Т	Z			S	W	
2	IEZ1211L	Programming applications			2			30	60	2	1,0	Т	Z		Р	S	W	
		Economic science block (3 semester)	2	1				45	120	4								
1	FBZ1187W	Financial Engineering	2					30	60	2	1,0	Т	Z			S	W	
2	FBZ1187C	Financial Engineering		1				15	60	2	0,5	Т	Z		Р	S	W	
3	EKZ1166W	Market Structures and their Regulation	2					30	60	2	1,0	Т	Z			S	W	
4	EKZ1166C	Market Structures and their Regulation		1				15	60	2	0,5	Т	Z		Р	S	W	
		Computer science block (4 semester)	2	1	1			60	120	4								
1	IEZ1209W	Investigation of MIS requirements	1					15	30	1	0,5	Т	Z			S	W	
2	IEZ1209C	Investigation of MIS requirements		1				15	30	1	0,5	Т	Z		Р	S	W	
3	IEZ1210W	Methods of management information systems modeling	1					15	30	1	0,5	Т	Z			S	W	
4	IEZ1210L	Methods of management information systems modeling			1			15	30	1	0,5	Т	Z		Р	S	W	

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

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

 $^{5}$ Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses  $^{6}$  KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

		Legal science block (4 semester)	2	2			60	120	4						
1	PRZ1168W	Business on the EU market	1				15	30	1	0,5	Т	Z		S	W
2	PRZ1168C	Business on the EU market		1			15	30	1	0,5	Т	Ζ	Р	S	W
3	PRZ1155W	International law	1				15	30	1	0,5	Т	Ζ		S	W
4	PRZ1155C	International law		1			15	30	1	0,5	Т	Z	Р	S	W
		Computer science block (5 semester)	2		1		45	90	3						
1	IEZ1212W	Software project in management	2				30	60	2	1,0	Т	Z		S	W
2	IEZ1212L	Software project in management			1		15	30	1	0,5	Т	Z	Р	S	W

Altogether	for	specialization	blocks:
mogemen	101	specialization	biochs.

	Tota	l number of	hours		Total number of ZZU hours		Total number of ECTS points	1
lec	cl	lab	pr	sem				
22	13	6	0	0	615	1500	50	20,5

4.3 Training block - concerning principles of training crediting – attachment no. 4...

Faculty Council resolution (for programs adopted to September 30, 2019) / recommendation of the program's Faculty Committee (for programs adopted after September 30, 2019)\*

Name	of training		
Number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>	Training crediting mode	Code
5		<ol> <li>A student must present at least one of the following documents:</li> <li>a report from the enterprise or institution in which the work placement occurred containing: the length of the work placement and assessment of the success of the placement:</li> </ol>	ZMZ2623Q

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

	<ul> <li>a report from the enterprise confirming the fact that the student was employed, the length of employment and a description of the tasks carried out by the student,</li> <li>a certificate witnessing a placement organized by AIESEC or other student organization of a similar nature,</li> <li>a written report documenting the results of the placement.</li> <li>Work placements are assessed by the dean (assistant dean for academic affairs), or a person appointed by him/her, after reviewing the opinion of the student's placement supervisor and/or the documentation regarding the placement.</li> </ul>	
Training duration	Training objective	
4 weeks	<ul> <li>Preparing students for future professional employment, as well as developing the skills a carrying out the tasks required in a chosen functional area of an organization - accordance with the stated goals of work practice, in particular: <ul> <li>experiencing the demands and environment of the workplace,</li> <li>making use of the theoretical and practical abilities developed during the course a work environment,</li> <li>developing social, practical and organizational abilities and positive worki habits, as well as stimulating interest in the practical problems encountered in a chose area of organizational activity, together with the socio-cultural function of an organization A work placement is carried out according to a program set out in agreement with the place of work and covers the following elements:</li> <li>a) a description of the role to be carried out,</li> <li>b) the relation between the work placement and the student's studies:</li> <li>defining the knowledge required to carry out the work placement, which a stude should be in possession of before the placement starts,</li> <li>indicating the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the subjects from the course program which will be fundamental to the student of the student of</li></ul></li></ul>	in ing sen on. the

 $^{2}$ Traditional – enter T, remote – enter Z

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

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

<sup>&</sup>lt;sup>7</sup> Optional – enter W, obligatory – enter Ob

competencies required during the placement, - in cases where a work placement is carried out in the final year of a student's studies, the relationship between the placement and the student's diploma thesis should be defined,
- a description of the skills, knowledge and types of conduct that a student should develop during the work placement.

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

Type of diploma dissertation	Licencjat / inżynier / magister / magister inżynier*					
Number of diploma dissertation semesters	Number of ECTS points	Code				
2	1 14	ZMZ1250S Diploma seminar ZMZ1256D Bachelor thesis				
Character	r of diploma dissertation					
d	liagnostic or design					
Number of BK <sup>1</sup> ECTS points	15					

## 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
problems classes	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

<sup>1</sup>BK - number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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

 ${}^{3}$ Exam – enter E, crediting – enter Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)  ${}^{4}$ University-wide course /group of courses – enter O

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses

<sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

	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

. . . .

SYMBOL EFEKTU	ZAGADNIENIE EGZAMINACYJNE
K1_ZARZ_W01	1. Origin and evolution of organizational sciences
	2. Economic sciences – scope and relation to social and technical sciences.
K1_ZARZ_W02	3. Types of economic systems and their elements.

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

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

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

K1_ZARZ_W03	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).
K1_ZARZ_W04	9. The essence and features of commercial law. Subjects of commercial law.
	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, licence agreements as an instrument of the commercialization of intellectual property.
K1_ZARZ_W05	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
K1_ZARZ_W06	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.
K1_ZARZ_W07	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
K1_ZARZ_W08	24. Factors influencing organizational structures
	25. Organizational structure – determinants and directions of evolution
K1_ZARZ_W09	26. Definition and generic classification of processes. Identifying, mapping, designing and implementing processes.
KI_ZAKZ_W09	27. The functional and process forms of the organization of an enterprise.
KI ZADZ WIO	28. Models and standardization of processes. Methods of evaluating processes.
K1_ZARZ_W10	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.

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 <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
 <sup>7</sup> Optional – enter W, obligatory – enter Ob

K1_ZARZ_W1132. 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 fundaments of bookkeeping. Accounting. 36. The sources and rules of financing a firm's activities.K1_ZARZ_W1237. 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.K1_ZARZ_W1340. Goals and strategies of production management in a market economy. 41. Systems and processes of production and services – methods of production management.K1_ZARZ_W1442. The essence of logistics, its fundaments and levels of integration of logistic processes. 43. Management, planning and organization of logistic processes in an organization.K1_ZARZ_W1544. Goals and stages of DMAIC methodology (Define – Measure – Analyze – Improve – Control) used in the Six Sigma approa 45. Techniques and methods of quality improvement. Costs of quality control.
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35. The fundaments of bookkeeping. Accounting.         36. The sources and rules of financing a firm's activities.         K1_ZARZ_W12         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.         K1_ZARZ_W13       40. Goals and strategies of production management in a market economy.         41. Systems and processes of production and services – methods of production management.         K1_ZARZ_W14       42. The essence of logistics, its fundaments and levels of integration of logistic processes.         43. Management, planning and organization of logistic processes in an organization.         K1_ZARZ_W15       44. Goals and stages of DMAIC methodology (Define – Measure – Analyze – Improve – Control) used in the Six Sigma approa         45. Techniques and methods of quality improvement. Costs of quality control.
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46. Total Quality Management (TQM) and quality management systems according to ISO 9000 norms – basic differences
K1_ZARZ_W16 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.
50. The essence of motivation and motivating. Theories of motivation and their characteristics.
51. Processes of social integration in an organization.
K1_ZARZ_W18 52. Interpersonal conflicts – within and between groups. Group cohesion.
53. Organizational culture and the ethics of organizational behavior.
54. Sources and manifestations of power in an organization. Authority, influence, coalitions. leadership.
K1_ZARZ_W19 55. Forces that generate changes in an enterprise - models of managing change.
56. Process of implementing changes in an organization - the sources of resistance to change and ways to neutralize them.
K1_ZARZ_W20 57. The definition and initiation of projects. Evaluation of project feasibility. Analysis of project risk. Project structure.
58. The essence and roles of projects in management. The essence and types of projects. Project life cycle.
59. Project realization and resource planning. Project budgeting. Managing the realization of a project. Organization of a project
team.

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K1_ZARZ_W21	<ul><li>60. The essence and types of entrepreneurship, determinants of its initiation and development.</li><li>61. The essence and types of innovation, organisations and institutions supporting the diffusion of innovation.</li></ul>	
K1_ZARZ_W22	62. The influence of the physical environment at work on employees	
K1_ZARZ_W23	63. Mathematical methods applied in management – examples of applications	
K1_ZARZ_W24	<ul> <li>64. Multicriteria analysis in decision-making – examples of problems and methods of problem solving</li> <li>65. Intelligent management systems – general characteristics, examples of application.</li> </ul>	
K1_ZARZ_W25	<ul> <li>66. Analysis and forecasting of development trends – examples of applications.</li> <li>67. Classical linear regression models – examples of applications in management</li> </ul>	
K1_ZARZ_W26	<ul><li>68. Process of implementing and exploiting information systems in management.</li><li>69. The design of management information systems: assumptions, phases, rules and tools.</li><li>70. Assumptions and aims of an enterprise's strategy for applying computerization.</li></ul>	

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

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

#### 9. Plan of studies (attachment no. .....)

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

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Approved by faculty student government legislative body:

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

Date,

.....

Dean's signature

.....

\*delete as appropriate

<sup>1</sup>BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students

 $^{2}$ Traditional – enter T, remote – enter Z

<sup>5</sup>Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses <sup>6</sup> KO – general education, PD – basic sciences, K – field-of-studies, S – specialization

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