PLAN OF STUDIES

FACULTY: Geoengineering, Mining, and Geology

MAIN FIELD OF STUDY: geodesy and cartography

EDUCATION LEVEL: 1st level, inżynier studies

FORM OF STUDIES: full-time

PROFILE: general academic

LANGUAGE OF STUDY: Polish

Geoengineering, Mining, and Geology Faculty Council Resolution of 05.09.2012

In effect since 01.10.2012

*delete as applicable

Plan of studies structure in hourly layout 1st level full-time studies in the field of geodesy and cartography

sem/ hrs.	1	ECTS points	2	ECTS points	3	ECTS points	4	ECTS points	5	ECTS points	6	ECTS points	7	ECTS points
1 2 3	Algebra and Analytical Geometry 21000 E MAP 1140	4	Mathematical Analysis II 32000 E	8	Surveying II 10110 E GKG3052	5	Engineering Surveys II 10200 Z GKG4054	5	Geodesy I 102000 Z GKG5056	4	Cartography I 10210 Z GKG6010	3	Surveying and Mining Law 20002 E	5
4	Mathematical Analysis I	8	MAP 1144		Physics II 20100 E FZP2072	5	Photogrammetry and Remote Sensing	7	Engineering Surveys III 10020 E	5	GKG6010		PRG7010 Cartography II 10100 E	5
6	22000 E MAP 1142	0	Physics I				20200 E GKG4055	,	GKG5050		Land Cadastre and Management	3	GKG7020 Diploma Seminar	Ŭ
7 8	Basics of		22000 E FZP 1058	6	Adjustment Calculations I 12000 Z	5	Introduction to Economics	2	Geographic Information Systems II 10200 E	5	20200 Z GKG6011		00002 Z GKG7021	2
9 10	Surveying and Geodesy 20200 E GKG 1037	5	Numerical Mapping		GKG3053 Engineering Surveys I 10100 Z	3	10001 E EKG4010 Adjustment Calculations II 11000 E	4	GKG5058 Mining Surveying		Monitoring of Deformations 10200 Z	3	Optional Course 20000 Z	3
11 12	Engineering		10200 Z ING 2041	3	GKG3054		GKG4056 Geographic		10200 E GKG5055	4	GKG6020 Optional Course			
13	Graphics and Technical Drawing	4			Foreign Language	2	Information Systems I	5	Hydrogeology 10100 Z	2	20000 Z	3		
14 15	10030 Z GGG1033		Surveying I 20210 Z GKG 2037	5	04000 Z		20200 Z GKG4057		GEG5010 Geotechnics 10100 Z	2	Satellite Geodesy 10200 E GKG61012	3		
16 17	Information Technologies 20000 Z INZ 0534	2	GKG 2037		Data Bases 10100 Z GKG3055	3	Foreign		GHG0115 General Structural	2	GKG01012		Diploma Dissertation	15
18	Geomatics 20000 Z	2	Computer Science II 00200 Z	2	Physical Education	1	Language 04000 Z	3	Engineering 11000 Z IBG000115	2	Mining Areas Protection 20020 E	3	GKG7012	10
19 20	GKG 1031 Computer Science		ING 2044		02000 Z Electronic Measuring Techniques		Occupational Safety		Civil Engineering 10010 Z BDG 5010	2	GGG6030			
21	l 00200 Z ING 1032	2	Fundamentals of Geology 20200 E	4	10100 Z GKG3048	2	and Health and Ergonomics 11100 E	4	Spatial Planning and Development	2	Geodesy II			
22 23	Liberal-Managerial Subjects	3	GEG 2045		Statistical Data Analysis	4	GGG4014		10100 Z GKG5051 Environmental Protection		10020 E GKG6013	4		
24	30000 Z		Fundamentals of Mining	2	20100 Z GGG3051				10100 Z GKG5053	2	Tectonics and Geophysics	2		
25			20000 E GGG 2050	_							10010 Z GEG6011	_		
26											Training GKG106010	6		
Total		30		30		30		30		30		30		30

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

Semester 1

Obligatory courses number of ECTS points 15

No.	. Course/group	Name of course/group of courses	Wee	kly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	per of ECTS points	Form ² of	2	U	oup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG1037	Basics of Surveying and Geodesy	2		2			K_W02 K_U01 K_K01	60	150	5	3	Т	E, Z			K	Ob
2	GGG1033	Engineering Graphics and Technical Drawing	1			3		K_W28 K_U31	60	120	4	3	Т	Z			PD	Ob
3	INZ0534	Information Technologies	2					K_W09 K_K03	30	60	2	2	Т	Z	0		KO	Ob
4	GKG1031	Geomatics	2					K_W01	30	60	2	2	Т	Z			Κ	Ob
5	ING1032	Computer Science I			2			K_U07 K_K01, 02	30	60	2	1	Т	Z			PD	Ob
		Total	7		4	3			210	450	15	11						

Optional courses (minimum 150 hours in semester, 15 ECTS points)

No	. Course/group	Name of course/group of courses	We	ekly	numb	er of I	hours	Field-of-	Numbe	r of hours	Numł	per of ECTS points	Form ² of	Way ³ of	Course/gr	oup of cour	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	MAP1140	Algebra and Analytical Geometry	2	1				K_W35 K_U38 K_K01	45	120	4	1,5	Z	E, Z	0		PD	W
2	MAP1142	Mathematical Analysis I	2	2				K_W36 K_U39 K_K01	60	240	8	5	Т	E, Z	0		PD	W
3	FLG108825	Liberal-Managerial Subjects	2					K_W37 K_K01	30	60	2	1	Т	Z	0		KO	W
4	PKH1772	Liberal-Managerial Subjects	1					K_W37	15	30	1	0,5	Т	Z	0		KO	W
		Total	7	3					150	450	15	8						

¹BK - 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

⁵Practical 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

⁷ Optional – enter W, obligatory – enter Ob

Altogether in semester

	Tota	ll number of	hours		Total number of ZZU hours	Total number of CNPS hours		Number of ECTS points for BK classes ¹
lec	cl	lab	pr	sem				
14	3	4	3		360	900	30	19

 ¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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
⁵Practical 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
⁷ Optional – enter W, obligatory – enter Ob

Obligatory courses number of ECTS points 16

No.	. Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	per of ECTS points		Way ³ of	•	roup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	ING2041	Numerical Mapping	1		2			K_W03 K_U03	45	90	3	2	Т	Z			K	Ob
2	GKG2037	Surveying I	2		2	1		K_W01, 02, 03, 04, 07, 09, 15, 22 K_U01, 03, 04, 05, 09, 10, 12, 21 K_K03-06	75	150	5	3,1	Т	Z			К	Ob
3	JNG2044	Computer Science II			2			K_U07 K_K04, 06	30	60	2	1	Т	Z			K	Ob
4	GGG2050	Fundamentals of Mining	2					K_W11 K_K07	30	60	2	2	Т	Е			K	Ob
5	GEG2045	Fundamentals of Geology	2		2			K_29, 32, 41 K_U30, 32 K_K01-07	60	120	4	3,5	Т	E, Z			K	Ob
		Total	7		8	1			240	480	16	11,6						

 1 BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students 2 Traditional – enter T, remote – enter Z

¹ Fractuonal – enter 1, temote – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob

Optional courses (minimum 135 hours in semester, 14 ECTS points)

No	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	per of ECTS points	Form ² of	2	0	oup of cour	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	MAP1144	Mathematical Analysis II	3	2				K_W36 K_U39 K_K01, 07	75	240	8	5	Т	E, Z	0		PD	W
2	FZP001058	Physics I	2	2				K_W04 K_U06 K_K01-07	60	180	6	6	Т	E, Z	0		PD	W
		Total	5	4					135	420	14	11						

Altogether in semester

	Tota	ll number of	hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	1
lec	cl	lab	pr	sem				
12	4	8	1		375	900	30	22,6

 ${}^{1}BK$ – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students ${}^{2}Traditional$ – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob

Obligatory courses number of ECTS points 22

No	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	per of ECTS points		Way ³ of	U	roup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG3052	Surveying II	1		1	1		K_W01, 04, O6, 07, 09, 22 K_U01, 03, 04, 05, 08, 09, 10, 12, 21 K_K03-06	45	150	5	2,1	Т	E, Z			К	Ob
2	GKG3053	Adjustment Calculations I	1	2				K_W06 K_U08 K_K01, 07	45	150	5	4	Т	Z			K	Ob
3	GKG3054	Engineering Surveys I	1		1			K_W08 K_U11	30	90	3	2	Т	Z			К	Ob
4	GKG3055	Data Bases	1		1			K_W10 K_U13 K_K07	30	90	3	2	Т	Z			K	Ob
5	GKG3048	Electronic Measuring Techniques	1		1			K_W09 K_U12	30	60	2	1,5	Т	Z			K	Ob
6	GGG3051	Statistical Data Analysis	2		1			K_W05 K_U06	45	120	4	3	Т	Z			K	Ob
		Total	7	2	5	1			225	660	22	14,6						

¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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
⁵Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses
⁶KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
⁷Optional – enter W, obligatory – enter Ob

Optional courses	(minimum 13	35 hours in semester,	8 ECTS points)
optional courses	(minimum ic	be mound in beinebeer,	

								I /										
No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	er of hours	Numb	per of ECTS points	Form ² of	Way ³ of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	FZP2072	Physics II	2		1			K_W04 K_U06	45	150	5	5	Т	E, Z	0		КО	W
2	JZL000000BK	Foreign Language		4				K_U01	60	60	2	2	Т	Z	0		KO	W
3	WFW00000BK	Physical Education		2				K_W40	30	30	1	1	Т	Z	0		KO	W
		Total	2	6	1				135	240	8	8						

Altogether in semester

	Τc	otal number o	of hours		Total number of ZZU hours	Total number of CNPS hours		1
lec	cl	lab	pr	sem				
9	8	6	1		360	900	30	22,6

¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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
⁵Practical 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
⁷ Optional – enter W, obligatory – enter Ob

Obligatory courses number of ECTS points 27

No	Course/group		We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	per of ECTS points		Way ³ of	•	roup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG4054	Engineering Surveys II	1		2			K_W12 K_U14	45	150	5	4	Т	Z			К	Ob
2	GKG4055	Photogrammetry and Remote Sensing	2		2			K_W13 K_U15 K_K07	60	210	7	5	Т	E, Z			К	Ob
3	GKG4056	Adjustment Calculations II	1	1				K_W15 K_U17	30	120	4	4	Т	E, Z			K	Ob
4	GKG4057	Geographic Information Systems I	2		2			K_W14 K_U16	60	150	5	4	Т	Z			K	Ob
5	GGG4014	Occupational Safety and Health and Ergonomics	1	1	1			K_W43 K_U46 K_K04	45	120	4	3,5	Т	E, Z			К	Ob
6	EKG4010	Introduction to Economics	1				1	K_W21 K_U42 K_K01-07	30	60	2	2	Т	E, Z			KO	Ob
		Total	8	2	7		1		270	810	27	22,5						

 1 BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students 2 Traditional – enter T, remote – enter Z

¹ Fractuonal – enter 1, temote – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob

Optional courses (minimum 60 hours in semester, 3 ECTS points)

No	Course/group	Name of course/group of courses	We	ekly	numb	er of l	nours	Field-of-	Numbe	r of hours	Numł	per of ECTS points	Form ² of	Way ³ of	Course/gr	oup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	JZL000000BK	Foreign Language		4				K_U01	60	90	3	3	Т	Z	0		KO	W
		Total		4					60	90	3	3						

Altogether in semester

					of ZZU hours	hours	of ECTS points	for BK classes ¹
lec	cl	lab	pr	sem				
8	6	7		1	330	900	30	25,5

 ${}^{1}BK$ – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students ${}^{2}Traditional$ – enter T, remote – enter Z

¹ Fractuonal – enter 1, temote – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob

Obligatory courses number of ECTS points 28

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-study	Numbe	er of hours	Numb	per of ECTS points	Form ² of			roup of cour	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type
1	GKG5056	Geodesy I	1		2			K_W01 K_U27	45	120	4	3	Т	Z			K	Ob
2	GKG5050	Engineering Surveys III	1			2		K_W12, 17 K_U19, 21, 26	45	150	5	4	Т	E, Z			K	Ob
3	GKG5058	Geographic Information Systems II	1		2			K_W18 K_U20	45	150	5	4	Т	E, Z			K	Ob
4	GKG5055	Mining Surveying	1		2			K_W19 K_U01 K_K07	45	120	4	3	Т	E, Z			K	Ob
5	GKG5010	Hydrogeology	1		1			K_W30 K_U33 K_K04	30	60	2	1,5	Т	Z			K	Ob
6	GHG0115	Geotechnics	1		1			K_W31, 32 K_U34, 35, 36 K_K01, 04, 06		60	2	2	Т	Z			K	Ob
7	IBG000115	General Structural Engineering	1		1			K_W08, 33 K_U35, 36, 47 K_K01, 04, 06		60	2	1,3	Т	Z			K	Ob
8	BDG5010	Civil Engineering	1			1		K_W03, 33 K_U36 K_K01, 04	30	60	2	1,4	Т	Z			K	Ob
9	GKG5051	Spatial Planning and Development	1		1			K_W20 K_U22	30	60	2	1,5	Т	Z			K	Ob
		Total	9		10	3			330	840	28	21,7						

¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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
⁵Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses
⁶KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
⁷Optional – enter W, obligatory – enter Ob

No.	Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	er of ECTS points	Form ² of	Way ³ of	Course/gr	oup of cour	ses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG5053	Environmental Protection (GK)	1		1			K_W10, 14, 21, 23 K_U02, 03, 13, 16, 20, 23, 24, 30 K_K02, 04	30	60	2	1,5	Т	Z (lec)			K	Ob
		Total	1		1				30	60	2	1,5						

Groups of obligatory courses number of ECTS points 2

Altogether in semester

	Tot	al number of	hours		Total number of ZZU hours	Total number of CNPS hours		Number of ECTS points for BK classes ¹
lec	cl	lab	pr	sem				
10		11	3		360	900	30	23,2

¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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
⁵Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses
⁶KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
⁷Optional – enter W, obligatory – enter Ob

No.	Course/group	Name of course/group of courses	We	ekly	numbe	er of l	hours	Field-of-	Numbe	r of hours	Num	per of ECTS points	Form ² of	~	0	oup of cou		
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG6010	Cartography I	1		2	1		K_W22 K_U24, 30	60	90	3	2	Т	Z			К	Ob
2	GKG6011	Land Cadastre and Management	2		2			K_W20, 23 K_U19, 25 K_K04	60	90	3	2,5	Т	Z			К	Ob
3	GKG6020	Monitoring of Deformations	1		2			K_W18 K_U20	45	90	3	2	Т	Z			К	Ob
4	GKG6012	Satellite Geodesy	1		2			K_W16 K_U09, 18	45	90	3	2	Т	E, Z			К	Ob
5	GGG6030	Mining Areas Protection	2			2		K_W26 K_U29 K_K07	60	90	3	2	Т	E, Z			К	Ob
6	GKG6013	Geodesy II	1			2		K_W01 K_U27	45	120	4	2,5	Т	E, Z			К	Ob
7	GEG6011	Tectonics and Geophysics	1			1		K_W41 K_U44 K_K07	30	60	2	1,5	Т	Z			К	Ob
		Total	9		8	6			345	630	21	14,5						

Obligatory courses number of ECTS points 21

 1 BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students 2 Traditional – enter T, remote – enter Z

¹ Fractuonal – enter 1, temote – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob

Optional courses (minimum 150 hours in semester, 9 ECTS points)

No.	Course/group	Name of course/group of courses	We	ekly	numbe	er of l	nours	Field-of-	Numbe	r of hours	Numł	per of ECTS points	Form ² of	2	C	oup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG000067	Optional Course	2						30	90	3		Т	Z			Κ	W
2	GKG106010	Training		30					120	180	6		Т	Z			Κ	W
		Total	2	30					150	270	9							

Altogether in semester

	Tota	al number of	hours		Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	
lec	cl	lab	pr	sem				
11		8	6		495	900	30	14,5

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²Traditional – enter T, remote – enter Z
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⁴University-wide course / group of courses – enter O
⁵Practical 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
⁷ Optional – enter W, obligatory – enter Ob

Obligatory courses number of ECTS points 10

No.	. Course/group	Name of course/group of courses	We	ekly	numb	er of	hours	Field-of-	Numbe	r of hours	Numb	er of ECTS points	Form ² of	Way ³ of	Course/gr	oup of cour	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr	sem	study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	PRG7010	Surveying and Mining Law	2				2	K_W34 K_U37	60	150	5	4	Т	Z			K	Ob
2	GKG7020	Cartography II	1		1			K_W27 K_U30	30	150	5	4	Т	E, Z			K	Ob
		Total	3		1		2		90	300	10	8						

Optional courses (minimum 255 hours in semester, 20 ECTS points)

No.	. Course/group	Name of course/group of courses	We	ekly 1	numbe	er of h	nours	Field-of-	Numbe	r of hours	Numb	er of ECTS points	Form ² of		θ	oup of cou	rses	
	of courses code	(denote group of courses with symbol GK)	lec	cl	lab	pr		study educational effect symbol	ZZU	CNPS	total	BK classes ¹	course/group of courses	crediting	university-wide ⁴	practical ⁵	kind ⁶	type ⁷
1	GKG7021	Diploma Seminar					2		30	60	2	2	Т	Z				
2	GKG000067	Optional Course	2						30	90	3		Т	Z				
3	GKG7011	Diploma Dissertation		13					195	450	15	5	Т	Z				
		Total	2	13			2		255	600	20	7						

Altogether in semester

	Total	number of h	iours			Total number of CNPS hours		
lec	cl	lab	pr	sem				
5	13	1		4	345	900	30	15

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⁵Practical course / group of courses – enter O ⁶KO – general education, PD – basic sciences, K – field-of-studies, S – specialization ⁷Optional – enter W, obligatory – enter Ob

2. Set of examinations in semestral arrangement

Course code	Names of courses ending with examination	Semester
MAP1140	1.Algebra and Analytical Geometry	1
MAP1142	2.Mathematical Analysis I	1
GKG1037	3.Basics of Surveying and Geodesy	1
MAP1144	1. Mathematical Analysis II	2
FZP001058	2.Physics I	2
GGG2050	3.Fundamentals of Mining	2
GEG2045	4.Fundamentals of Geology	2
GKG3052	1.Surveying II	3
FZP2072	2.Physics II	3
GKG4055	1.Photogrammetry and Remote Sensing	4
GKG4056	2.Adjustment Calculations II	4
GGG4014	3. Occupational Safety and Health and Ergonomics	4
EKG4010	4.Introduction to Economics	4
GKG5050	1.Engineering Surveying III	5
GKG5058	2.Geographic Information Systems II	5
GKG5055	3.Mining Surveying	5
GKG6012	1.Satellite Geodesy	6
GGG6030	2.Mining Areas Protection	6
GKG6013	3.Geodesy II	6
GKG7020	1.Cartography II	7

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⁷Optional – enter W, obligatory – enter Ob

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

Semester	Allowable deficit of ECTS points after semester
1	8
2	8
3	12
4	12
5	12
6	6

 ¹BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
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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⁵Practical course / group of courses – enter P. For the group of courses – in brackets enter the number of ECTS points assigned to practical courses
⁶KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
⁷Optional – enter W, obligatory – enter Ob

Opinion of student government legislative body

Name and surname, signature of student representative Date

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Dean's signature Date

 1BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students $^2Traditional~-$ enter T, remote – enter Z

³Exam – enter T, renote – 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 ⁵Practical 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 ⁷ Optional – enter W, obligatory – enter Ob