

## **PLAN OF STUDIES**

**FACULTY:** Geoengineering, Mining, and Geology

**MAIN FIELD OF STUDY:** mining and geology

**EDUCATION LEVEL:** 1<sup>st</sup> 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



## 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 of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	MMG1103	Descriptive Geometry and Technical Drawing	1			3		K_W08 K_U08	60	210	7	5	T	Z			PD	Ob
2	GGG1102	Fundamentals of Mining	2					K_W11 K_K07	30	60	2	2	T	E			K	Ob
3	EKG1101	Introduction to Economics	1				1	K_W07, 10, 35 K_U01, 05, 09 K_K02, 03	30	60	2	2	T	E, Z			KO	Ob
4	OSG1101	Introduction to Ecology and Environment Protection	2					K_W11 K_K02	30	60	2	2	T	Z			KO	Ob
5	INZ0534	Information Technologies	2					K_W09 K_K03	30	60	2	2	T	Z	O		KO	Ob
Total			8			3	1		180	450	15	13						

<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

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

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

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	MAP1142	Mathematical Analysis I	2	2				K_W01 K_U02 K_K01, 07	60	240	8	5	T	E, Z	O		PD	W
2	MAP1140	Algebra and Analytical Geometry	2	1				K_W02 K_U03 K_K01, 07	45	120	4	2,5	Z	E, Z	O		PD	W
3	FLG108825	Liberal-Managerial Subjects	2					K_W06 K_K03	30	60	2	1	T	Z	O		KO	W
4	PKH1772	Liberal-Managerial Subjects	1					K_W06	15	30	1	0,5	T	Z	O		KO	W
Total			7	3					150	450	15	9						

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>15</b>	<b>3</b>		<b>3</b>	<b>1</b>	<b>330</b>	<b>900</b>	<b>30</b>	<b>22</b>

<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

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

## Semester 2

### Obligatory courses, number of ECTS points 12

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	CHG2101	Chemistry	2		2			K_W05 K_U07	60	120	4	3,5	T	E, Z	O		PD	Ob
2	GKG2102	Engineering Surveys	2		2			K_W12 K_U10	60	90	3	2	T	Z			K	Ob
3	MMG2101	Technical Mechanics	2	2				K_W13 K_U11 K_K07	60	150	5	4	T	E, Z			K	Ob
Total			6	2	4				180	360	12	9,5						

### Groups of obligatory courses, number of ECTS points 4

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GEG2101	Fundamentals of Geology (GK)	1			2		K_W11, 14 K_U12 K_K01-07	45	120	4	3	T	E (lec), Z			K	Ob
Total			1			2			45	120	4	3						

<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

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

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

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-Owide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	MAP1144	Mathematical Analysis	3	2				K_W01 K_U02 K_K01, 07	75	240	8	5	T	E, Z	O		PD	W
2	FZP001058	Physics I	2	2				K_W04 K_U06 K_K01	60	180	6	6	T	E, Z			PD	W
Total			5	4					135	420	14	11						

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>12</b>	<b>6</b>	<b>4</b>	<b>2</b>		<b>360</b>	<b>900</b>	<b>30</b>	<b>23,5</b>

<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

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

## Semester 3

### Obligatory courses, number of ECTS points 18

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GEG3102	Hydrogeology	2		1			K_W17 K_U15 K_K04	45	90	3	2,5	T	E, Z			K	Ob
2	MAP3033	Mathematical Statistics	1	1				K_W03 K_U04 K_K07	30	90	3	1,5	T	Z	O		PD	Ob
3	GGG3101	Soil Mechanics	2		1			K_W18 K_U16 K_K01	45	150	5	4	T	E, Z			K	Ob
4	ING3101	Computer Science			2			K_U05 K_K01	30	60	2	1	T	Z			PD	Ob
5	MMG3102	Strength of Materials	2		2			K_W15 K_U13 K_K07	60	150	5	4	T	E, Z			K	Ob
Total			7	1	6				210	540	18	13						

### Groups of obligatory courses, number of ECTS points 4

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GEG3104	Mineralogy and Petrology (GK)	1		2			K_W05, 16, 22	45	120	4	3,5	T	E (lec), Z			K	Ob
Total			1		2				45	120	4	3,5						

<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

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

**Optional courses (minimum 135 hours in semester, 8 ECTS points)**

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	FZP2072	Physics II	2		1			K_W04 K_U06	45	150	5	5	T	E, Z	O		PD	W
2	JZL000000BK	Foreign Language		4				K_U01	60	60	2	2	T	Z	O		KO	W
3	WFW000000BK	Physical Education		2				K_W36	30	30	1	1	T	Z	O		KO	W
Total			2	6	1				135	240	8	8						

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>10</b>	<b>7</b>	<b>9</b>			<b>390</b>	<b>900</b>	<b>30</b>	<b>24,5</b>

<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

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



## Semester 4

### Obligatory courses, number of ECTS points 27

No.	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GGG4107	Surface Mining Technology	3			2		K_W07, 08, 09 K_U05, 17 K_K01, 02	75	150	5	4	T	E, Z			K	Ob
2	GEG4103	Mineral Deposit and Mining Geology	2		1	1		K_W20 K_U18	60	150	5	3,5	T	E, Z			K	Ob
3	GGG4108	Applied Geophysics	1			1		K_W20 K_U18 K_K02, 07	30	90	3	2,5	T	E, Z			K	Ob
4	GGG4103	Drilling Technology	2					K_W21 K_K02, 07	30	60	2	2	T	Z			K	Ob
5	GGG4104	Mineral Processing I	2					K_W22 K_U19 K_K07	60	90	3	3	T	Z			K	Ob
6	GGG4109	Rock Mass Mechanics	2		1	1		K_W23 K_U20 K_K04	60	210	7	5,5	T	E, Z			K	Ob
7	GGG4110	Blasting Technique I	2					K_W19, 26, 35	30	60	2	2	T	Z			K	Ob
Total			14		2	5			315	810	27	22,5						

<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

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

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

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	JZL00000BK	Foreign Language		4				K_U01	60	90	3	3	T	Z	O		KO	W
		Total		4					60	90	3	3						

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>14</b>	<b>4</b>	<b>2</b>	<b>5</b>		<b>375</b>	<b>900</b>	<b>30</b>	<b>25,5</b>

<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

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

## Semester 5

### Obligatory courses, number of ECTS points 23

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses				
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>	
1	GGG5110	Mineral Processing II	2		2			K_W22 K_U19 K_K07					T	E, Z				K	Ob
2	GGG5111	Underground Mining Technology	3		2			K_W07, 26, 30, 32 K_U05, 23, 32 K_K01, 02					T	E, Z				K	Ob
3	GGG5112	Blasting Technique II				2		K_U23, 32 K_K04					T	Z				K	Ob
4	GKG5102	Mining Surveying	2		2	1		K_W12, 27 K_U10, 24 K_K04, 07					T	Z				K	Ob
5	ELG5102	Electrotechnics	2		1			K_W25 K_U22 K_K01					T	E, Z				K	Ob
Total			9		7	3			285	690	23	16							

### Groups of obligatory courses, number of ECTS points 4

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses					
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>		
1	MMG5101	Introduction to Machine Construction (GK)	2				1		K_W24 K_U21 K_K07	45	120	4	2,5	T	Z (lec)				K	Ob
Total			2				1			45	120	4	2,5							

<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

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

**Optional courses (minimum 30 hours in semester, 3 ECTS points)**

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses				
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>	
1	GGG010001	Optional Course	2						30	90	3		T	Z				K	W
		Total	2						30	90	3								

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>13</b>		<b>7</b>	<b>4</b>		<b>360</b>	<b>900</b>	<b>30</b>	<b>18,5</b>

<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

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

## Semester 6

### Obligatory courses, number of ECTS points 24

No.	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GGG6105	Mine Dewatering	2			1		K_W28 K_U25 K_K02	45	90	3	2	T	E, Z			K	Ob
2	GGG6104	Occupational Safety and Health and Rescue Work I	2	1	1			K_W33 K_U33, 34 K_K04	60	120	4	3,5	T	E, Z			K	Ob
3	EKG6102	Economics in Mining	3		2	1		K_W10, 31, 35 K_U28 K_K04-06	90	150	5	3,5	T	E, Z			KO	Ob
4	MMG6102	Machinery Systems	3		1	1	1	K_W24 K_U29	90	180	6	5	T	E, Z			K	Ob
5	GGG6106	Mine Ventilation and Fires	2		1			K_W30 K_U27 K_K043	45	120	4	4	T	E, Z			K	Ob
6	GGG6107	Rock Extraction and Processing	1		1			K_W19, 22 K_U04, 19 K_K01	30	60	2	1,5	T	Z			K	Ob
Total			13	1	6	3	1		360	720	24	20,5						

<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

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

**Optional courses (minimum 120 hours in semester, 6 ECTS points)**

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GGG106011	Training		30					120	180	6		T	Z		P	K	W
		Total		30					120	180	6							

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>13</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>480</b>	<b>900</b>	<b>30</b>	<b>20,5</b>

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<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

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

## Semester 7

### Obligatory courses, number of ECTS points 7

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses				
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>	
1	PRG7101	Geological and Mining Law	1					1	K_W34 K_U31 K_K02	30	60	2	1,5	T	Z			K	Ob
2	GGG7109	Occupational Safety and Health and Rescue Work II	2	1					K_W33 K_U30 K_K02, 03	45	60	2	2	T	E, Z			K	Ob
3	GGG7113	Mine Ventilation and Fires	2		1				K_W30 K_U27 K_K01	60	90	3	2	T	E, Z			K	Ob
Total			5	1	1			1		135	210	7	5,5						

### Groups of obligatory courses, number of ECTS points 5

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	OSG7101	Postmining Land Reclamation and Development (GK)	1			1	1	K_W29 K_U01, 05, 26, 32, 34	45	90	3	2	T	Z (lec)			K	Ob
2	GGG7108	Mineral Deposit and Production Management (GK)	1			2		K_W35 K_U32 K_K07	45	60	2	1,5	T	Z (lec)			K	Ob
Total			2			3	1		90	150	5	3,5						

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

**Optional courses (minimum 135 hours in semester, 18 ECTS points)**

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol <b>GK</b> )	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form <sup>2</sup> of course/group of courses	Way <sup>3</sup> of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes <sup>1</sup>			university-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	GGG010001	Optional Course	2						30	60	2		T	Z			K	W
2	GGG7106	Diploma Seminar					2		30	60	2	2	T	Z			K	W
3	GGG7114	Diploma Dissertation		5					75	420	14	5						
Total			2	5			2		135	540	18	7						

**Altogether in semester:**

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Number of ECTS points for BK classes <sup>1</sup>
lec	cl	lab	pr	sem				
<b>9</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>360</b>	<b>900</b>	<b>30</b>	<b>16</b>

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



## 2. Set of examinations in semestral arrangement

Course code	Names of courses ending with examination	Semester
MAP1142	1.Mathematical Analysis I	1
MAP1140	2.Algebra and Analytical Geometry	1
GGG1102	3.Fundamentals of Mining	1
EKG1101	4.Introduction to Economics	1
MAP1144	1.Mathematical Analysis II	2
FZP001058	2.Physics I	2
CHG2101	3.Chemistry	2
MMG2101	4.Technical Mechanics	2
GEG2101	5.Fundamentals of Mining	2
GEG3104	1.Mineralogy and Petrology	3
GEG3102	2.Hydrogeology	3
GGG3101	3.Soil Mechanics	3
MMG3102	4.Strength of Materials	3
GGG4107	1.Surface Mining Technology	4
GEG4103	2.Mineral Deposit and Mining Geology	4
GGG4108	3.Applied Geophysics	4
GGG4109	4.Rock Mass Mechanics	4
GGG5110	1.Mineral Processing II	5
GGG5111	2.Underground Mining Technology	5
ELG5102	3.Electrotechnics	5
GGG6105	1.Mine Dewatering	6
GGG6104	2.Occupational Safety and Health and Rescue Work	6
EKG6102	3.Economics in Mining	6
MMG6102	4.Machinery Systems	6
GGG6106	5.Mine Ventilation and Fires I	6
GGG7109	1.Occupational Safety and Health and Rescue Work II	7
GGG7113	2.Mine Ventilation and Fires II	7

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

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

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

Opinion of student government legislative body

.....

Date Name and surname, signature of student representative

.....

Date Dean's signature

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

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