

## **PLAN OF STUDIES**

<b>FACULTY:</b>	<b>ELECTRONICS</b>
<b>MAIN FIELD OF STUDY:</b>	<b>TELECOMMUNICATIONS.</b>
<b>EDUCATION LEVEL:</b>	2nd * level, magister /
<b>FORM OF STUDIES:</b>	full-time
<b>PROFILE:</b>	general academic
<b>SPECIALIZATION:....</b>	<b>Modern Telecommunications</b>
<b>LANGUAGE OF STUDY:</b>	<b>English</b>

Uchwała Senatu PWr nr 744/32/2016-2020 z dnia 16 maja 2019 r.  
Obowiązuje od **1 października 2019 r.**

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

## Semester 1

### Obligatory courses

number of ECTS points: **11**

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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	FLEA002W	Komunikacja społeczna- <b>Social Comm.</b>	1	0	0	0	0	K2TEL_U03, K2TEL_K01	15	60	2	1	T	Z	O		KO	Ob
2	TKEU00005W	Optyka - <b>Optics</b>	1	0	0	0	0	K2TEL_W01	15	30	1	0,5	T	Z			KO	Ob
3	TKEA00005W	Metody optymalizacji- <b>Optimization Methods</b>	2	0	0	0	0	K2TEL_W04	30	90	3	1	T	E(w)			KO	Ob
4	TKEA17011L	Zaawansowane techniki sieciowe - <b>Advanced Network Techniques</b>	0	0	4	0	0	K2TEL_U08	60	150	5	2,5	T	Z		5	K	Ob
<b>Total</b>			<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	-	<b>120</b>	<b>330</b>	<b>11</b>	<b>5</b>	-	-	-	<b>5</b>	-	-

### Groups of obligatory courses

number of ECTS points: **16**

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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	MAEA00202W	Statystyka matematyczna ( <b>GK</b> ) - <b>Mathematics Statistics</b>	1	0	0	0	0	K2TEL_W03	15	60	3	1	T	Z	O		PD	Ob
2	MAEA00202C	Statystyka matematyczna ( <b>GK</b> ) - <b>Mathematics Statistics</b>	0	1	0	0	0	K2TEL_U04	15	30		1	T	Z	O	2	PD	Ob
3	TKEA00026W	Metody numeryczne – <b>Numerical Methods</b>	2	0	0	0	0	K2TEL_W05	30	90	5	1	T	Z			KO	Ob
4	TKEA00026P	Metody numeryczne – <b>Numerical Methods</b>	0	0	0	2	0	K2TEL_U11	30	60		1	T	Z		2	KO	Ob

<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

5	TKEA15004W	Technika w. cz. w telekomunikacji (GK) - HF Techniques in Telecommunicatinos	2	0	0	0	0	K2TEL_W07	30	60	4	1	T	Z			KO	Ob
6	TKEA15004L	Technika w. cz. w telekomunikacji (GK) - HF Techniques in Telecommunicatinos	0	0	1	0	0	K2TEL_U07	15	60		1	T	Z		2	KO	Ob
7	TKEA00025W	Elementy sieci optycznych (GK) - Optical Networks Elements	2	0	0	0	0	K2TEL_W06	30	60	4	1	T	Z			KO	Ob
8	TKEA00025P	Elementy sieci optycznych (GK) - Optical Networks Elements	0	0	0	1	0	K2TEL_U06	15	60		1	T	Z		2	KO	Ob
<b>Total</b>			<b>7</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>-</b>	<b>180</b>	<b>480</b>	<b>16</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>-</b>	<b>-</b>

### Optional courses

number of ECTS points: 3

No..	Course/group of courses code	Name of course/group of courses (denote group of courses with symbol GK)	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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1		Język obcy A1 - <b>Forcing Language</b>	0	3	0	0	0	K2TEL_U01	45	60	2	1	T	Z	O	1	KO	W
2		Język obcy B2+ - <b>Forcing Language</b>	0	1	0	0	0	K2TEL_U02	15	30	1	1	T	Z	O	1	KO	W
<b>Total</b>			<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>60</b>	<b>90</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>

### Altogether in semester

Total number of hours					Total number of ZZU	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				
11	5	5	3	0	360	900	30	15

<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: **1**

Lp	Kod kursu/grupy kursów	Nazwa kursu/grupy kursów (grupę kursów oznaczyć symbolem GK)	Tygodniowa liczba godzin					Symbol kierunk. efektu kształcenia	Liczba godzin		Liczba pkt. ECTS		Forma <sup>2</sup> kursu/grupy kursów	Sposób <sup>3</sup> zaliczenia	Kurs/grupa kursów			
			w	ć	l	p	s		ZZU	CNPS	łącna	zajęc BK <sup>1</sup>			ogólnouczelniany <sup>4</sup>	o charakterze praktycznym <sup>5</sup>	rodzaj <sup>6</sup>	typ <sup>7</sup>
1	TKEA17021W	Filtracja ortogonalna sygnałów stochastycznych stoch. sign.- <b>Orthogonal filtering of stochastic signals (GK)</b>	1	0	0	0	0	S2TMT_W02	15	30	1	0,5	T	Z			S	Ob
<b>Total</b>			<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	<b>15</b>	<b>30</b>	<b>1</b>	<b>0,5</b>	-	-	-	<b>0</b>	-	-

### 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 GK)	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	TKEA17031W	Systemy wbudowane (GK) - <b>Embedded Systems</b>	1	0	0	0	0	K2TEL_W10	15	30	3	0,5	T	Z			K	Ob
2	TKEA17031L	Systemy wbudowane (GK) - <b>Embedded Systems</b>	0	0	2	0	0	K2TEL_U10	30	60		1	T	Z		2	K	Ob
3	TKEA17022W	Kompresja informacji (GK) - <b>Compression of Information</b>	2	0	0	0	0	K2TEL_W09	30	60	2	0,5	T	E(w)			K	Ob
4	TKEA27022L	Kompresja informacji (GK) - <b>Compression of Information</b>	0	0	1	0	0	K2TEL_U09	15	30		0,5	T	Z		1	K	Ob
<b>Total</b>			<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	-	<b>90</b>	<b>180</b>	<b>5</b>	<b>2,5</b>	-	-	-	<b>3</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

**Optional 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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	TKEA0010L	Aplikacje mobilne - <b>Mobile Applications</b>	0	0	2	0	0	S2TMT_U10	30	60	2	1	T	Z		2	K	W
2	TKEA014S	Seminarium specjalnościowe - <b>Specialization Seminar</b>	0	0	0	0	2	S2TIM_W10, S2TIM_K01	30	90	3	1	T	Z		2	K	W
<b>Total</b>			<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	-	<b>60</b>	<b>150</b>	<b>5</b>	<b>2</b>	-	-	-	<b>4</b>	-	-

**Groups of optional courses**

 liczba punktów ECTS: **19**

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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	TKEA00028W	Sieci optyczne - <b>Optical Networks 1</b>	1	0	0	0	0	S2TMT_W05	15	90	3	1	T	Z			S	W
3	TKEA019W	Sieci multimedialne ( <b>GK</b> ) - <b>Multimedia Systems</b>	1	0	0	0	0	S2TMT_W02	15	30	4	1	T	E(w)			S	W
4	TKEA019L	Sieci multimedialne ( <b>GK</b> ) - <b>Multimedia Systems</b>	0	0	2	0	0	S2TMT_U02	30	60		2	T	Z		2	S	W
5	TKEA007W	Elementy sieci fotonicznych ( <b>GK</b> ) - <b>Photonic Components</b>	2	0	0	0	0	S2TMT_W01	30	90	5	2	T	Z			S	W
6	TKEA007L	Elementy sieci fotonicznych ( <b>GK</b> ) - <b>Photonic Components</b>	0	0	2	0	0	S2TMT_U01	30	60		1	T	Z		2	S	W
7	TKEA009W	Sieci mobilne ( <b>GK</b> ) - <b>Mobile Networks</b>	1	0	0	0	0	S2TMT_W03	15	90	5	1	T	Z			S	W
8	TKEA009L	Sieci mobilne ( <b>GK</b> ) - <b>Mobile Networks</b>	0	0	1	0	0	S2TMT_U03	15	30		1	T	Z		1	S	W

<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

9	TKEA009P	Sieci mobilne (GK) - Mobile Networks	0	0	0	1	0	S2TMT_U03	15	30		1	T	Z		1	S	W
10	TKEA020W	Sieci satelitarne (GK) -Satellite Communication Networks	1	0	0	0	0	S2TMT_W08	15	30	2	1	T	Z			S	W
11	TKEA020S	Sieci satelitarne (GK) -Satellite Communication Networks	0	0	0	0	1	S2TMT_U08	15	30		1	T	Z		1	S	W
<b>Total</b>			<b>6</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>1</b>	-	<b>195</b>	<b>540</b>	<b>19</b>	<b>12</b>	-	-	-	<b>7</b>	-	-

### Altogether in semester

Total number of hours					Total number of ZZU	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				
10	0	10	1	3	360	900	30	17

<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

liczba punktów ECTS: **2**

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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	TKEA17030W	Przedsiębiorczość w ICT ( <b>GK</b> ) - <b>ICT Business</b>	2	0	0	0	0	K2TEL_W02, K2TEL_K02	30	60	2	1	T	Z			K	Ob
<b>Total</b>			<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	<b>30</b>	<b>60</b>	<b>2</b>	<b>1</b>	-	-	-	<b>0</b>	-	-

### Optional 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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	TKEA00002S	Seminarium dyplomowe - <b>MSc Seminar</b>	0	0	0	0	2	S2TMT_U08	30	90	3	2	T	Z		3	S	W
2	TKEA15001	Praca dyplomowa - <b>Final MSc Projekt</b>	0	0	0	0	0	S2TMT_U09, S2TMT_K02		360	12	6	T	Z		12	S	W
<b>Total</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	-	<b>30</b>	<b>450</b>	<b>15</b>	<b>8</b>	-	-	-	<b>15</b>	-	-

\*Realizacja lipiec-sierpień-wrzesień poprzedzające semestr VII

<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

## Groups of optional courses

number of ECTS points: **13**

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>			universit y-wide <sup>4</sup>	practical <sup>5</sup>	kind <sup>6</sup>	type <sup>7</sup>
1	TKEA00033W	Techniki ultraszerokopasmowe i terahercowe – <b>UWB and THz Techniques</b>	1	0	0	0	0	S2TMT_W07	15	60	3	1	T	Z			S	Ob
2	TKEA00033S	Techniki ultraszerokopasmowe i terahercowe - <b>UWB and THz Techniques</b>	0	0	0	0	1	S2TMT_U07	15	30		1	T	Z		1	S	Ob
3	TKEA00032W	Odbiorniki cyfrowe ( <b>GK</b> )- <b>Digital receivers</b>	1	0	0	0	0	S2TMT_W06	15	60	3	1	T	Z			S	Ob
4	TKEA00032P	Odbiorniki cyfrowe ( <b>GK</b> ) - <b>Digital receivers</b>	0	0	0	1	0	S2TMT_U06	30	30		1	T	Z		1	S	Ob
5	TKEA00029L	Sieci optyczne 2 ( <b>GK</b> ) - <b>Optical Networks 2</b>	0	0	2	0	0	S2TMT_W05	30	60	2	1	T	Z		2	S	Ob
6	TKEA023W	Bezpieczeństwo systemów teleinformatycznych ( <b>GK</b> ) - <b>Security in Teleinformatics systems</b>	1	0	0	0	0	S2TMT_W04	15	60	5	1	T	Z			S	Ob
7	TKEA023L	Bezpieczeństwo systemów teleinformatycznych ( <b>GK</b> ) - <b>Security in Teleinformatics systems</b>	0	0	3	0	0	S2TMT_U04	45	90		1,5	T	Z		3	S	Ob
<b>Total</b>			<b>3</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>1</b>	-	<b>165</b>	<b>390</b>	<b>13</b>	<b>7,5</b>	-	-	-	<b>7</b>	-	-

### Altogether in semester

Total number of hours					Total number of ZZU	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				
5	0	5	1	3	225	900	30	16,5

## 2. Set of examinations in semestral arrangement

<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

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



Course code	Names of courses ending with examination	Semester
TKEA005W	Metody optymalizacji- <b>Optimization Methods</b>	1
TKEA022W	Kompresja informacji (GK) - <b>Compression of Information</b>	2
TKEA019W	Sieci multimedialne (GK) - <b>Multimedia Systems</b>	2

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

Semester	Allowable deficit of ECTS points after semester
1	8
2	8
3	0

Uwaga: Deficyt liczony jest z uwzględnieniem WSZYSTKICH kursów/grup kursów, również nietechnicznych (język obcy, zajęcia sportowe, przedmioty hum.-men.-społ.).

<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

Zaopiniowane przez wydziałowy organ uchwałodawczy samorządu studenckiego:

.....  
Data

.....  
Imię, nazwisko i podpis przedstawiciela studentów

.....  
Data

.....  
Podpis Dziekana

<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

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