Predicted number of students starting the cycle
Year I Semester I – academic year 2019/2020

30

	Year I Semester I – academic year 2019/2020								
		CC	OMPULSORY	COURSES					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Introduction to mathematics	lecture	60	Exam	1	60	11	K_W01,K_W02,K_W03,K_W04,K_W05, K_W06,K_U01,K_U02, K_U03,K_U04,K_U05,	
1222		class	60	Graded Pass	1	60		K_U06,K_U07, K_U08,K_U09,K_U11,K_U36,K_K01,K_K05	
2	Linear algebra with geometry I	lecture	60	Exam	1	60	11	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07.K_U01.K_U02.K_U03.K_U04.K_U05	
		class	60	Graded Pass	1	60	11	K_W07,K_U01,K_U02, K_U03,K_U04,K_U05, K_U06,K_U07,K_U08,K_U17,K_U18,K_U19, K_U36,K_K01,K_K05	
3	Logic	lecture	15	Exam	1	15		According to the resolution of the Senate of the Catholic University of Lublin from April 12, 2012 (714/II/13)	
3	Logic	class	15	Graded Pass	1	15	2		
4	Introduction to computer science**	lecture	30	Exam	1	30			
	The odd comparer science	laboratory	30	Graded Pass	1	30	5	K_W01,K_W04,K_U25,K_U26,K_U27,K_K01	
			LECTIVE CO	URSES*					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Foreign language	foreign language class	30	Graded Pass	1	30	1	According to the resolution of the Senate of the Catholic University of Lublin from March 28, 2019 (803/II/8)	
2	Physical education	class	30	Pass	1	30	0	According to the resolution of the Senate of the Catholic University of Lublin from December 18, 2014 (747/II/5)	

<sup>\*</sup> student choose foreign language and physical education

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	390
ECTS POINTS PER SEMESTER PER STUDENT:	30

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Predicted number of students starting the cycle Year I Semester II – academic year 2019/2020 30

		C	OMPULSORY	COURSES				
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes
1	Calculus I	lecture	60	Exam	1	60	11	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02,K_U03,K_U04,K_U05, K_U06, K_U07,K_U08, K_U09,K_U10, K_U11,K_U12, K_U13,K_U14, K_U15, K_U36, K_K01, K_K05
1	Calculus	class	60	Graded Pass	1	60		
2	Linear algebra with geometry II	lecture	60	Exam	1	60	11	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02, K_U03,K_U04,K_U05, K_U06,K_U07,K_U08,K_U16,K_U17,K_U20, K_U23,K_K01,K_K05
2	Linear algebra with geometry ii	class	60	Graded Pass	1	60		
3	Entrepreneurship	workshop	30	Graded Pass	1	30	2	According to the resolution of the Senate of the Catholic University of Lublin from February 22, 2018 (789/II/5)

	ELECTIVE COURSES*										
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes			
1	Foreign language	foreign language class	30	Graded Pass	1	30	1	According to the resolution of the Senate of the Catholic University of Lublin from March 28, 2019 (803/II/8)			
2	Physical education	class	30	Pass	1	30		According to the resolution of the Senate of the Catholic University of Lublin from December 18 2014 (747/II/5)			
2	Slastina source I	lecture	30	Exam	1	30	Е	K_W01,K_W04,K_U38,K_K02,K_K05			
3	Elective course I	class (laboratory**)	30	Graded Pass	1	30	]	K_VV01,K_VV04,K_036,K_K02,K_K03			

<sup>\*</sup> student choose foreign language, physical education and one elective course (60 h, 5 ECTS)

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	390
ECTS POINTS PER SEMESTER PER STUDENT:	30



Predicted number of students starting the cycle
Year II Semester III – academic year 2020/2021

30

		CC	OMPULSORY	COURSES					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Calculus II	lecture	60	Exam	1	60	11	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02,K_U03,K_U04,K_U05,	
		class	60	Graded Pass	1	60		K_U06,K_U10,K_U12, K_U13,K_U14, K_U15, K_K01, K_K05	
2	Topology	lecture	30	Exam	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02,K_U03,K_U04,K_U05,	
		class	30	Graded Pass	1	30		K_U06,K_U09,K_U23, K_U24,K_K01, K_K05	
3	History of philosophy	lecture	45	Exam	1	45	3	According to the resolution of the Senate of the Catholic University of Lublin from April 12, 201. (714/II/10)	
			LECTIVE CO	URSES*					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Foreign language	foreign language class	30	Graded Pass	1	30	1	According to the resolution of the Senate of the Catholic University of Lublin from March 28, 2019 (803/II/8)	
2	Elective course II	lecture	30	Exam	1	30	5		
	Discourse as an as an	class (laboratory**)	30	Graded Pass	1	30	5	K_W01,K_W04,K_U38,K_K02,K_K05	
3	Elective course III	lecture	30	Exam	1	30	5	K W01 K W04 K 1138 K K03 K K05	
_	Liective course III	class (laboratory**)	30	Graded Pass	1	30	2	K_W01,K_W04,K_U38,K_K02,K_K05	

<sup>\*</sup> student choose foreign language and two elective courses (60+60 h, 5+5 ECTS)

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	375
ECTS POINTS PER SEMESTER PER STUDENT:	30

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Predicted number of students starting the cycle
Year II Semester IV – academic year 2020/2021

30

		СО	MPULSORY	COURSES					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Abstract algebra	lecture	60	Exam	1	60	8	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02, K_U03,K_U04,K_U05,	
1	Abstract algebra	class	30	Graded Pass	1	30		K_U06,K_U17,K_K01, K_K05	
2	Manager and integral	lecture	30	Exam	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02, K_U03,K_U04,K_U05,	
2	Measure and integral	class	30	Graded Pass	1	30		K_U06,K_U07,K_U09,K_U13,K_U14,K_K0 K_K05	
2	Differential equations	lecture	30	Exam	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_W07,K_U01,K_U02, K_U03,K_U04,K_U05, K_U06,K_U21,K_U22,K_K01, K_K05	
3		class	30	Graded Pass	1	30			
4	Computing laboratory	laboratory	30	Graded Pass	2	60	4	K_W08,K_W09,K_U15,K_U28,K_U39,K_U41,K K02, K_K05	
		<u> </u>	LECTIVE CO	URSES*					
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes	
1	Foreign language	foreign language class	30	Graded Pass	1	30	1	According to the resolution of the Senate of the Catholic University of Lublin from March 28, 2019 (803/II/8)	
		exam		Exam			2		
2	Floative course IV	lecture	30	Exam	1	30	5	K W01 K W04 K H38 K K02 K K05	
2	Elective course IV	class (laboratory**)	30	Graded Pass	1	30	] ]	K_W01,K_W04,K_U38,K_K02,K_K05	

<sup>\*</sup> student choose foreign language and one elective course (60 h, 5 ECTS) and practical placement – 3 weeks (120 h) during summer holiday (course credit in 5th semester)

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	330
ECTS POINTS PER SEMESTER PER STUDENT:	30



Predicted number of students starting the cycle Year III Semester V – academic year 2021/2022 30

		C	OMPULSORY	COURSES				
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes
1	Probability theory	lecture	60	Exam	1	60	8	K_W01,K_W02,K_W03,K_W04,K_W05, K_U01,K_U02, K_U03,K_U04,K_U05,K_U06,
		class	30	Graded Pass	1	30		K_U29,K_U30,K_U31,K_U32,K_U33,K_U35, K_K01, K_K05
2	Complex analysis	lecture	30	Exam	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05,
2	Complex analysis	class	30	Graded Pass	1	30	3	K_U01,K_U02, K_U03,K_U04,K_U05,K_U06, K_K01, K_K05
3	Ethics	lecture	30	Exam	1	30	2	According to the resolution of the Senate of the Catholic University of Lublin from April 12, 2012 (714/II/11)
4	Protection of intellectual property	lecture	15	Graded Pass	1	15	1	K_W10
			<b>ELECTIVE CO</b>	URSES*				
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes
1	Seminar	seminar	30	Pass	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_W06,K_W07,K_U01,K_U02,K_U03,K_U04, K_U05,K_U11,K_U13,K_U14,K_U15,K_U16, K_U18,K_U22,K_U37,K_U38,K_U39,K_U40, K_U41,K_U42,K_K01,K_K02,K_K03,K_K04, K_K05
2	Practical placement (3 weeks)	practical placement	120	Pass			4	K_W10,K_U25,K_U28,K_U36,K_U38,K_U39, K_U40,K_U41,K_U42,K_K01,K_K02,K_K03, K_K04
3	Elective course V	lecture class (laboratory**)	30 30	Exam Graded Pass	1 1	30 30	5	K W01,K W04,K U38,K K02,K K05

<sup>\*</sup> student choose one elective course (60 h, 5 ECTS), one seminar (30 h 4 ECTS) and complete practical placement – 3 weeks (120 h 4 ECTS)

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	285+120
ECTS POINTS PER SEMESTER PER STUDENT:	30

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Predicted number of students starting the cycle

30

		C	<b>OMPULSORY</b>	COURSES				
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes
1	SA-Ni-Mi-	lecture	30	Exam	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05,
1	Statistics	class	30	Graded Pass	1	30	5	K_U01,K_U02, K_U03,K_U04,K_U05,K_U06, K_U34,K_U35,K_K01, K_K05
		lecture	30	Exam	1	30	- 5	K_W01,K_W02,K_W03,K_W04,K_W05,
2	Functional analysis	class	30	Graded Pass	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_U01,K_U02, K_U03,K_U04,K_U05,K_U06, K_U09,K_U10,K_K01, K_K05
			ELECTIVE CO	URSES*				
No.	Course name	Type of class	Number of teaching hours	Form of assessment	Number of groups	Total hours	ECTS Points	Reference to programme learning outcomes
1	Seminar	seminar	30	Pass	1	30	5	K_W01,K_W02,K_W03,K_W04,K_W05, K_W06,K_W07,K_U01,K_U02,K_U03,K_U04, K_U05,K_U11,K_U13,K_U14,K_U15,K_U16, K_U18,K_U22,K_U37,K_U38,K_U39,K_U40, K_U41,K_U42,K_K01,K_K02,K_K03,K_K04, K_K05
2	BA project and preparation for a diploma examination	assignment		Pass			10	
		lecture	30	Exam	1	30	_	
3	Elective course VI	recture	0.707				5	K W01,K W04,K U38,K K02,K K05

<sup>\*</sup> student choose one elective course (60 h, 5 ECTS) and one seminar (30 h, 5 ECTS), student is required to prepare BA project (10 ECTS)

<sup>\*\*</sup> Joint course with Informatics

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	210
ECTS POINTS PER SEMESTER PER STUDENT:	30

NUMBER OF TEACHING HOURS PER CYCLE PER STUDENT:	1980+120
ECTS POINTS PER CYCLE PER STUDENT:	180

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Seminarium	
Algebra	
Application of mathematics	A STATE OF THE STA
Algorytms and programming**	

Elective course I, IV,VI	
Differential geometry	
Discrete mathematics**	
Foundations of numerical methods	
Operations research	
Financial mathematics	
Descriptive statistics	
Statistical analysis of data**	
Abstract data structures**	
Artificial intelligence**	
Elective course II, III, V	
Elements of number theory	
Introduction to mathematical modelling	
Algorithmic methods	17-2151
Graph and network theory**	
Mathematical background for computer graphics**	
Mathematics of life insurance	
Multidimensional data analysis	
Databases I**	
Object-oriented programming**	

<sup>\*\*</sup> Joint course with Informatics

Uniwersytecka Komisja ds. Kształcenia pozytywnie zaopiniowała

dnia 18-01-2019

Senat KUL zatwierdził

PROREKTOR
Katoliebiego Vilwersytetu Lubelskiego
jara Pawla II

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