

Programme curriculum
Programme INFORMATICS (BA DEGREE STUDIES)
Cycle from academic year 2021/2022

Predicted number of students starting the cycle

30

Year I Semester I

COMPULSORY 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.	Computer architecture	lecture	15	Exam	1	15	3	K_W01, K_U04, K_U06, K_U30, K_K01
		laboratory	15	Graded Pass	2	30		
2.	Computer networks and Internet	lecture	15	Exam	1	15	5	K_W01, K_W04, K_U02, K_U04, K_U06, K_U15, K_U17, K_U24, K_U30, K_K01, K_K02
		laboratory	30	Graded Pass	2	60		
3.	Introduction to computer science	lecture*	30	Exam	1	30	7	K_W01, K_W03, K_W06, K_U02, K_U04, K_U06, K_U07, K_U08, K_U11, K_U17, K_K01, K_K02
		laboratory	45	Graded Pass	2	90		
4.	Introduction to differential and integral calculus	lecture	30	Exam	1	30	5	K_W02, K_W05, K_U03, K_U21, K_U22, K_K01
		class	30	Graded Pass	2	60		
5.	Linear algebra	lecture	15	Exam	1	15	5	K_W02, K_U21, K_K01
		class	30	Graded Pass	2	60		
6.	Logic	lecture	15	Exam	1	15	2	zgodnie z uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/13)
		class	15	Graded Pass	2	30		
7.	Protection of intellectual property	lecture	15	Graded Pass	1	15	1	K_W08
ELECTIVE COURSES								
1.	Foreign language	foreign language classes	30	Graded Pass			2	zgodnie z uchwałą Senatu KUL z dnia 28 marca 2019 r. (803/II/8)
2.	Physical education	class	30	Pass			0	zgodnie z uchwałą Senatu KUL z dnia 18 grudnia 2014 r. (747/II/5)

*Joint course with Mathematics

** The student undergoes training: Health and safety procedures training, Student rights and obligations, Student culture and ethos

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	360
ECTS POINTS PER SEMESTER PER STUDENT:	30

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Year I Semester II

COMPULSORY 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.	Algorithms of numerical analysis	lecture	15	Exam	1	15	3	K_W03, K_W06, K_U04, K_U07, K_U08, K_U11, K_U17, K_U20, K_U22, K_K01
		laboratory	15	Graded Pass	2	30		
2.	Analytic geometry	lecture	15	Exam	1	15	3	K_W02, K_U21, K_U22, K_K01
		class	15	Graded Pass	2	30		
3.	Computer graphics	laboratory	15	Graded Pass	2	30	2	K_W11, K_U01, K_U02, K_U04, K_K01, K_U17, K_U25, K_K02
4.	Discrete mathematics*	lecture	30	Exam	1	30	5	K_W09, K_U21, K_U22, K_K01
		class	30	Graded Pass	2	60		
5.	Entrepreneurship	workshops	30	Graded Pass	2	60	2	<i>Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/5) Nowelizacja z dnia 28.03.2019 r. (803/II/10)</i>
6.	Fundamentals of algorithms and programming*	lecture	30	Exam	1	30	6	K_W01, K_W03, K_W06, K_U02, K_U04, K_U07, K_U08, K_U09, K_U11, K_U12, K_U17, K_K01, K_K02
		laboratory	30	Graded Pass	2	60		
7.	Operating systems	lecture	15	Exam	1	15	4	K_W01, K_W04, K_U01, K_U02, K_U04, K_U17, K_U19, K_K01, K_K02, K_K04
		laboratory	30	Graded Pass	2	60		
8.	Websites design	laboratory	30	Graded Pass	2	60	3	K_W01, K_W06, K_U02, K_U04, K_U05, K_K01, K_U17, K_K04
ELECTIVE COURSES*								
1.	Foreign language	foreign language classes	30	Graded Pass			2	<i>zgodnie z uchwałą Senatu KUL z dnia 28 marca 2019 r. (803/II/8)</i>
2.	Physical education	class	30	Pass			0	<i>zgodnie z uchwałą Senatu KUL z dnia 18 grudnia 2014 r. (747/II/5)</i>

*Joint course with Mathematics

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ECTS POINTS PER SEMESTER PER STUDENT:	30

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Year II Semester III

COMPULSORY 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.	Databases I*	lecture	30	Exam	1	30	5	K_W01, K_W04, K_W10, K_U02, K_U04, K_U14, K_U17, K_U22, K_U23, K_U26, K_U27, K_U30, K_K01, K_K02
		laboratory	30	Graded Pass	2	60		
2.	Computer modeling and simulations*	lecture	30	Exam	1	30	5	K_W01, K_W05, K_W06, K_W11, K_U03, K_U06, K_U11, K_U17, K_K01
		laboratory	30	Graded Pass	2	60		
3.	Foundations of probabilistic methods	lecture	30	Exam	1	30	5	K_W09, K_U22, K_K01
		class	30	Graded Pass	2	60		
4.	History of philosophy	lecture	45	Exam	1	45	3	zgodnie z uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/10)
5.	Object-oriented programming*	lecture	30	Exam	1	30	5	K_W01, K_W03, K_W06, K_U06, K_U07, K_U08, K_U10, K_U11, K_U12, K_U17, K_K01, K_U04
		laboratory	30	Graded Pass	2	60		
ELECTIVE COURSES								
1.	Foreign language	foreign language classes	30	Graded Pass			2	zgodnie z uchwałą Senatu KUL z dnia 28 marca 2019 r. (803/II/8)
SPECIALISATION COURSES (Student choose one specialisation)								
<i>Specialisation: programming and information processing</i>								
1.	Data protection	lecture	30	Graded Pass	1	30	5	K_W03, K_W04, K_W06, K_W10, K_U02, K_K01, K_K05
		laboratory	30	Graded Pass	2	60		
<i>Specialisation: computer graphics and multimedia</i>								
1.	Mathematical basics for computer graphics*	lecture	30	Graded Pass	1	30	5	K_W02, K_W11, K_U02, K_K01
		laboratory	30	Graded Pass	1	30		

*Joint course with Mathematics

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

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COMPULSORY 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.	Algorithms and data structures	lecture	30	Exam	1	30	5	K_W01, K_W03, K_W06, K_U06, K_U08, K_U10, K_U11, K_U12, K_U17, K_K01, K_K02
		laboratory	30	Graded Pass	2	60		
2.	Artificial intelligence*	lecture	30	Exam	1	30	5	K_W01, K_W10, K_W06, K_U02, K_U04, K_U09, K_U10, K_U16, K_U23, K_K01
		laboratory	30	Graded Pass	2	60		
3.	Object-oriented programming II	lecture	30	Exam	1	30	4	K_W01, K_W03, K_W06, K_U07, K_U08, K_U10, K_U11, K_U12, K_U17, K_K01, K_U04
		laboratory	30	Graded Pass	2	60		
4.	Project management	lecture	15	Exam	1	15	3	K_W01, K_W04, K_W06, K_U01, K_U04, K_K01, K_U17, K_K02, K_K04, K_K05
		laboratory	30	Graded Pass	2	60		
5.	Statistical analysis of data*	lecture	30	Exam	1	30	5	K_W09, K_U22, K_U28
		laboratory	30	Graded Pass	2	60		
ELECTIVE COURSES								
1.	Foreign language	foreign language classes	30	Graded Pass			2	<i>zgodnie z uchwałą Senatu KUL z dnia 28 marca 2019 r. (803/II/8)</i>
		exam		Exam			1	
SPECIALISATION COURSES (Student choose one specialisation)								
<i>Specialisation: programming and information processing</i>								
1.	Internet applications development	tutorial	30	Graded Pass	1	30	5	K_W06, K_U02, K_U04, K_K01
		laboratory	30	Graded Pass	2	60		
<i>Specialisation: computer graphics and multimedia</i>								
1.	Methods and algorithms for computer graphics	lecture	30	Graded Pass	1	30	5	K_W11, K_U02, K_U04, K_U25, K_K01
		laboratory	30	Graded Pass	1	30		

* Joint course with Mathematics

** student choose practical placement – 3 weeks (120 h) during summer holiday (course credit in 5th semester)

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 III Semester V

30

COMPULSORY 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.	Algorithms and computational complexity	lecture	15	Exam	1	15	3	K_W01, K_W03, K_W06, K_U04, K_U07, K_U08, K_U09, K_U17, K_U22, K_K01, K_K02
		laboratory	15	Graded Pass	2	30		
2.	Ethics	lecture	30	Exam	1	30	2	<i>zgodnie z Uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/11)</i>
3.	Optimization methods	lecture	15	Exam	1	15	3	K_W01, K_W03, K_W06, K_U07, K_U11, K_U20, K_U22, K_K01, K_K02
		laboratory	15	Graded Pass	2	30		
4.	Software engineering	lecture	30	Exam	1	30	5	K_W04, K_W06, K_U02, K_U04, K_U13, K_U14, K_U17, K_U23, K_U29, K_U30, K_K01, K_K02, K_K04, K_K05
		laboratory	30	Graded Pass	2	60		
ELECTIVE COURSES								
1.	Laboratory of programming*	laboratory	30	Graded Pass	2	60	3	K_W06, K_W08, K_U08, K_U17, K_K06
2.	Seminar**	seminar	30	Pass	1	30	2	K_W08, K_U02, K_U23, K_U29, K_U30, K_K01, K_U17, K_U18, K_K03, K_K05
3.	Practical placement	practical placement	120	Pass			4	K_W07, K_W08, K_U01, K_U02, K_U04, K_U17, K_K01, K_K02, K_K03, K_K04, K_K06
SPECIALISATION COURSES (Student choose one specialisation)								
<i>Specialisation: programming and information processing</i>								
1.	Graph and network theory***	lecture	30	Graded Pass	1	30	5	K_W03, K_W04, K_W06, K_U02, K_U04, K_K01
		laboratory	30	Graded Pass	2	60		
2.	Web services programming	laboratory	30	Graded Pass	2	60	3	K_W06, K_U02, K_K01, K_K05
<i>Specialisation: computer graphics and multimedia</i>								
1.	Internet graphic design	laboratory	30	Graded Pass	1	30	3	K_W11, K_U02, K_U04, K_U25, K_K01
2.	Multimedia programming	lecture	30	Graded Pass	1	30	5	K_W03, K_W04, K_W11, K_W06, K_U02, K_U04, K_K01
		laboratory	30	Graded Pass	1	30		

NUMBER OF TEACHING HOURS PER SEMESTER PER STUDENT:	300
ECTS POINTS PER SEMESTER PER STUDENT:	30

* student choose 1 laboratory

** student choose 1 seminar

*** Joint course with Mathematics

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Predicted number of students starting the cycle
Year III Semester VI

30

COMPULSORY 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.	Python language programming	lecture	15	Exam	1	15	3	K_W01, K_W06, K_U04, K_U08 K_U11, K_U17, K_K01, K_K02, K_K05, K_K06
		laboratory	15	Graded Pass	2	30		
ELECTIVE COURSES								
1.	Laboratory of programming*	laboratory	30	Graded Pass	2	60	3	K_W06, K_W08, K_U08, K_U17, K_K06
2.	Programming project**	laboratory	30	Pass	3	90	3	K_W08, K_U02, K_U04, K_U08, K_U17, K_U23, K_U30
3.	Seminar***	seminar	30	Pass	3	90	2	K_W08, K_U02, K_U23, K_U29, K_U30, K_K01, K_U17, K_U18, K_K03
4.	BA project and preparation for a diploma examination	assignment		Pass			10	
SPECIALISATION COURSES (Student choose one specialisation)								
<i>Specialisation: programming and information processing</i>								
1.	Databases II	lecture	30	Graded Pass	1	30	6	K_W10, K_U02, K_U26, K_U27, K_U04, K_K01
		laboratory	30	Graded Pass	2	60		
2.	Practice of programming	laboratory	30	Graded Pass	2	60	3	K_W04, K_W06, K_U02, K_U04, K_U13, K_K01, K_K06
<i>Specialisation: computer graphics and multimedia</i>								
1.	Computer image analysis	lecture	30	Graded Pass	1	30	6	K_W06, K_W04, K_W03, K_W11, K_U02, K_U04, K_K01
		laboratory	30	Graded Pass	1	30		
2.	Computer animation	laboratory	30	Graded Pass	1	30	3	K_W11, K_U02, K_K01

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
ECTS POINTS PER CYCLE PER STUDENT:	180

* student choose 1 laboratory

**student choose 1 programming project

*** student choose seminar, student is required to prepare BA project