

Programme curriculum
 Programme INFORMATICS (BA DEGREE STUDIES)
 Cycle from academic year 2020/2021

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.	Linear algebra	lecture	15	Exam	1	15	5	K_W02, K_U21,K_K01
		class	30	Graded Pass	2	60		
2.	Computer architecture	lecture	15	Exam	1	15	3	K_W01,K_U04, K_U06, K_U30, K_K01
		laboratory	15	Graded Pass	2	30		
3.	Utility software applications	laboratory	15	Graded Pass	2	30	1	K_W01,K_W05, K_U01, K_U02, K_U03, K_U04, K_K01,K_U17
4.	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		
5.	Protection of intellectual property	lecture	15	Graded Pass	1	15	1	K_W08
6.	Computer networks and Internet	lecture	15	Exam	1	15	5	K_W01, K_W04, K_U02, K_U04, K_U06, K_U15,K_U24, K_U30, K_K01, K_U17, K_K02
		laboratory	30	Graded Pass	2	60		
7.	Introduction to computer science*	lecture	30	Exam	1	30	6	K_W03, K_W06, K_U02, K_U04, K_U06, K_U07, K_U08, K_U11,K_K01, K_K02, K_U17
		laboratory	30	Graded Pass	2	60		
8.	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		
	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

Programme curriculum
Programme INFORMATICS (BA DEGREE STUDIES)

Cycle from academic year 2020/2021

Predicted number of students starting the cycle **30**

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_U20, K_U22, K_K01, K_U17
		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	30	Graded Pass	2	60	3	K_W11, K_U01, K_U02, K_U04, K_K01, K_U17, K_K02, K_U25
4.	Discrete mathematics*	lecture	30	Exam	1	30	5	K_W09, K_U21, K_U22, K_K01
		class	30	Graded Pass	2	60		
5.	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_K01, K_K02, K_U17
		laboratory	30	Graded Pass	2	60		
6.	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
7.	Introduction to differential and integral calculus	lecture	15	Exam	1	15	3	K_W02, K_W05, K_U03, K_U21, K_U22, K_K01
		class	15	Graded Pass	2	30		
8.	Entrepreneurship	workshops	30	Graded Pass	2	60	2	<i>zgodnie z uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/5)</i>
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

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

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Cycle from academic year 2020/2021

Predicted number of students starting the cycle 30

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_U22, K_U23, K_U26, K_U27, K_U30, K_K01, K_U17, K_K02, zgodnie z uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/10)
		laboratory	30	Graded Pass	2	60		
2.	History of philosophy	lecture	45	Exam	1	45	3	
3.	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		
4.	Foundations of probabilistic methods	lecture	30	Exam	1	30	5	K_W09, K_U22, K_K01
		class	30	Graded Pass	2	60		
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_K01, K_U17, 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)								
Specialisation: programming and information processing								
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		
Specialisation: computer graphics and multimedia								
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	2	60		

*Joint course with Mathematics

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

Year II Semester IV

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_K01, K_K02, K_U17
		laboratory	30	Graded Pass	2	60		
2.	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_K01, K_U17, K_U04
		laboratory	30	Graded Pass	2	60		
3.	Statistical analysis of data*	lecture	30	Exam	1	30	5	K_W09, K_U22, K_U28
		laboratory	30	Graded Pass	2	60		
4.	Operating systems	lecture	15	Exam	1	15	3	K_W01, K_W04, K_U01, K_U02, K_U04, K_K01, K_U17, K_K02, K_K04,
		laboratory	30	Graded Pass	2	60		
5.	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		
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)
		exam		Exam			1	
SPECIALISATION COURSES (Student choose one specialisation)								
Specialisation: programming and information processing								
1.	Internet applications development	tutorial	30	Graded Pass	1	30	5	K_W06, K_U02, K_U04, K_K01
		laboratory	30	Graded Pass	1	30		
Specialisation: computer graphics and multimedia								

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

Year III Semester V

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.	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		
2.	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_U22, K_K01, K_K02, K_U17
		laboratory	15	Graded Pass	2	30		
3.	Ethics	lecture	30	Exam	1	30	2	<i>zgodnie z Uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/11)</i>
4.	Software engineering	lecture	30	Exam	1	30	5	K_W04, K_W06, K_U02, K_U04, K_U13, K_U14, K_U23, K_U29, K_U30, K_K01, K_U17, 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_K01, K_U02, K_U04
		laboratory	30	Graded Pass	1	30		
2.	Web services programming	laboratory	30	Graded Pass	1	30	3	K_W06, K_U02, K_K01, K_K05
<i>Specialisation: computer graphics and multimedia</i>								

1.	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		
2.	Internet graphic design	laboratory	30	Graded Pass	1	30	3	K_W11, K_U02, K_U04, K_U25, K_K01

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

* student choose 1 laboratory

	Laboratory of programming							
1.	Laboratory of programming: applications in basic programming environments	laboratory	30	Graded Pass	1	30	3	K_W06, K_W08, K_U08, K_U17, K_K06
2.	Laboratory of programming: web frameworks	laboratory	30	Graded Pass	1	30	3	K_W06, K_W08, K_U08, K_U17, K_K06

** student choose 1 seminar

*** Joint course with Mathematics

	Seminars							
1.	Multimedia applications	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
2.	Programming and computer graphics***	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.	Network technologies of data protection	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

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Cycle from academic year 2020/2021

Predicted number of students starting the cycle **30**

Year III Semester VI

	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.	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	15	Graded Pass	2	30		
	ELECTIVE COURSES							
1.	Labolatory of programming*	laboratory	30	Graded Pass	2	60	3	K_W06, K_W08, K_U08, K_U17
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)								
Specialisation: programming and information processing								
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	1	30		
2.	Practice of programming	laboratory	30	Graded Pass	1	30	3	K_W04, K_W06, K_U02, K_U04,K_U13, K_K01, K_K06
Specialisation: computer graphics and multimedia								
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

Laboratory of programming								
1.	Laboratory of programming: applications in basic programming environments	laboratory	30	Graded Pass	1	30	3	K_W06, K_W08, K_U08, K_U17
2.	Laboratory of programming: web frameworks	laboratory	30	Graded Pass	1	30	3	K_W06, K_W08, K_U08, K_U17

**student choose 1 programming project

Programming project								
1.	Programming project: programming, algorithms and databases	laboratory	30	Pass	1	30	3	K_W10, K_W08, K_U02, K_U04, K_U08, K_U17, K_U23, K_U30
2.	Programming project: graphics programming	laboratory	30	Pass	1	30	3	K_W11, K_W08, K_U02, K_U04, K_U08, K_U17, K_U23, K_U30
2.	Programming project: network and internet technology	laboratory	30	Pass	1	30	3	K_W04, K_W08, K_U02, K_U04, K_U08, K_U17, K_U23, K_U30

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

**** Joint course with Mathematics

Seminars								
1.	Multimedia applications	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
2.	Programming and computer graphics****	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.	Network technologies of data protection	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