

Programme curriculum
 Programme BIOTECHNOLOGY (1st degree studies) BS course
 Cycle beginning in 2019/2020

Predicted number of students starting the cycle
 Year I Semester I

8

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.	Physico-chemistry of biological systems	lecture	15	Exam	1	15	3	K_W01, K_W02, K_W03, K_W05, K_W09, K_U01, K_U02, K_U15, K_U13, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Logic	lecture	15	Exam	1	15	2	Zgodnie z Uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/13)
		classes	15	Graded Pass	1	15		
3.	Mathematics with statistics in biology	lecture	15	Pass	1	15	3	K_W02, K_W03, K_U18, K_U17
		classes	15	Graded Pass	1	15		
4.	Intellectual property protection	lecture	10	Graded Pass	1	10	1	K_W10, K_U07, K_K06
5.	Basics of animal cytophysiology and ontogenesis	lecture	30	Exam	1	30	9	K_W01, K_W03, K_U01, K_U02, K_U03, K_U12, K_U13, K_U17, K_K04
6.	Basics of taxonomy	tutorial	15	Graded Pass	1	15	1	K_W04, K_W05, K_W06, K_W08, K_U01, K_U17, K_U11

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7.	Laboratory techniques	classes	45	Graded Pass	1	45	3	K_W02, K_W05, K_W09, K_U01, K_U02, K_U15, K_U17, K_K04
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 classes	foreign language classes	30	Graded Pass	1	30	1	Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/6) Zmiana Uchwały dnia 28.03.2019 r. nr 803/II/8
2.	Physical education	classes	30	Pass	1	30	0	Zgodnie z Uchwałą Senatu KUL z dnia 18 grudnia 2014 r. (747/II/5)
ELECTIVE COURSES Chemistry I (alternative for Chemistry II)								
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.	General chemistry with elements of physical chemistry	lecture	30	Pass	1	30	7	K_W02, K_W03, K_W09, K_U02, K_U08, K_U09, K_U10, K_U13, K_U14, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
		tutorial	20	Graded Pass	1	20		

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44

ELECTIVE COURSES Chemistry II (alternative for Chemistry I)								
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.	General and inorganic chemistry	lecture	30	Exam	1	30	7	K_W02, K_W09, K_U02, K_U08, K_U10, K_U13, K_U17, K_K04
		classes	30	Graded Pass	1	30		
		tutorial	20	Graded Pass	1	20		

Students are required to attend trainings in occupational health and safety

Predicted number of students starting the cycle **8**
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.	Mathematics with statistics in biology	lecture	15	Exam	1	15	3	K_W02, K_W03, K_U18, K_U17
		classes	15	Graded Pass	1	15		
2.	Basics of plant cytophysiology and ontogenesis	lecture	30	Exam	1	30	9	K_W01, K_W03, K_U01, K_U02, K_U03, K_U12, K_U13, K_U17, K_K04
		classes	60	Graded Pass	1	60		

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3.	Entrepreneurship	workshops	30	Graded Pass	1	30	2	Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/5) Nowelizacja z dnia 803/II/10 z dn. 28.03.2019 r.
4.	Chromatographic techniques	classes	30	Graded Pass	1	30	3	K_W02, K_W05, K_W09, K_U01, K_U02, K_U15, K_U17, K_K04

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 classes	foreign language classes	30	Graded Pass	1	30	1	Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/6) Zmiana Uchwały dnia 28.03.2019 r. nr 803/II/8
2.	Physical education	classes	30	Pass	1	30	0	Zgodnie z Uchwałą Senatu KUL z dnia 18 grudnia 2014 r. (747/II/5)

ELECTIVE COURSES Chemistry I (alternative for Chemistry II)

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
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1.	General chemistry with elements of physical chemistry	lecture	15	Exam	1	15	3	K_W02, K_W03, K_W09, K_U02, K_U08, K_U09, K_U10, K_U13, K_U14, K_U15, K_U17, K_K04
		classes	15	Graded Pass	1	15		
2.	Organic chemistry - extended course	lecture	30	Exam	1	30	9	K_W02, K_W09, K_U01, K_U02, K_U08, K_U10, K_U13, K_U15, K_U17, K_K04
		classes	60	Graded Pass	1	60		
ELECTIVE COURSES Chemistry II (alternative for Chemistry I)								
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.	Physical chemistry	lecture	30	Exam	1	30	6	K_W02, K_W03, K_W09, K_U02, K_U08, K_U09, K_U10, K_U13, K_U14, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Organic chemistry – basic course	lecture	30	Exam	1	30	6	K_W02, K_W09, K_U01, K_U02, K_U08, K_U10, K_U14, K_U15, K_K04
		classes	30	Graded Pass	1	30		

Predicted number of students starting the cycle

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Year II Semester III

COMPULSORY COURSES

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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.	Biochemistry with enzymology	lecture	30	Exam	1	30	9	K_W01, K_W02, K_W05, K_W08, K_W09, K_U01, K_U02, K_U13, K_U15, K_U17, K_K04
		classes	60	Graded Pass	1	60		
2.	Ethics	lecture	30	Exam	1	30	2	Zgodnie z Uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/11)
3.	Plant physiology	lecture	30	Exam	1	30	6	K_W01, K_W05, K_W08, K_W09, K_U01, K_U02, K_U03, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
4.	Animal physiology	lecture	30	Exam	1	30	6	K_W01, K_W02, K_W07, K_W08, K_U01, K_U02, K_U03, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
5.	General microbiology	lecture	30	Exam	1	30	6	K_W01, K_W02, K_W05, K_W08, K_U01, K_U02, K_U03, K_U04, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
ELECTIVE COURSES								

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L.p.	Nazwa przedmiotu	Forma zajęć	Liczba godzin	Forma zaliczenia	Liczba grup	łącna liczba godzin	Liczba ECTS	Odniesienie do efektów kierunkowych
1.	Foreign language classes	foreign language classes	30	Graded Pass	1	30	1	Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/6) Zmiana Uchwały dnia 28.03.2019 r. nr 803/II/8

Predicted number of students starting the cycle **8**
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.	Molecular biology	lecture	30	Exam	1	30	7	K_W01, K_W05, K_W06, K_W09, K_U01, K_U15, K_U17, K_K04
		classes	45	Graded Pass	1	45		
2.	Genetics	lecture	30	Exam	1	30	6	K_W01, K_W06, K_W09, K_U01, K_U02, K_U03, K_U14, K_U17, K_K04
		classes	30	Graded Pass	1	30		
3.	History of philosophy	lecture	45	Exam	1	45	3	Zgodnie z Uchwałą Senatu KUL z dnia 12 kwietnia 2012 r. (714/II/10)

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4.	Genetic engineering	lecture	15	Exam	1	15	5	K_W01, K_W05, K_W06, K_W09, K_U01, K_U02, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
5.	Medical microbiology	lecture	30	Exam	1	30	6	K_W01, K_W04, K_W05, K_W08, K_W09, K_U01, K_U02, K_U03, K_U11, K_U12, K_U13, K_U15, K_U17, K_K01, K_K02, K_K04
		classes	30	Graded Pass	1	30		
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 classes	foreign language classes	30	Graded Pass	1	30	1	Zgodnie z Uchwałą Senatu KUL z dnia 22 lutego 2018 r. (789/II/6) Zmiana Uchwały dnia 28.03.2019 r. nr 803/II/8
2.	Foreign language classes	exam	0	Exam		0	2	

Predicted number of students starting the cycle **8**
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

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1.	Plant cell and tissue cultures	lecture	15	Exam	1	15	4	K_W04, K_W06, K_W07, K_W08, K_U01, K_U02, K_U04, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Industrial microbiology	lecture	30	Exam	1	30	5	K_W01, K_W04, K_W08, K_W09, K_U01, K_U03, K_U15, K_U17, K_K04
		classes	45	Graded Pass	1	45		
SPECIALISATION COURSES - ELECTIVE (one to choose from)								
Specialisation: Industrial biotechnology								
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.	Biotechnological methods in pharmacy	lecture	30	Exam	1	30	6	K_W01, K_W02, K_W05, K_W07, K_W08, K_W09, K_U01, K_U11, K_U12, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Technologies and bioprocess engineering - extended course	lecture	30	Exam	1	30	10	K_W01, K_W07, K_W08, K_W09, K_W11, K_U01, K_U11, K_U12, K_U13, K_U15, K_U17, K_K04
		classes	60	Graded Pass	1	60		
Specialisation: Environmental biotechnology								
1.	Analytical methods in biotechnology - extended course	lecture	30	Exam	1	30	6	K_W02, K_W03, K_W05, K_W09, K_U01, K_U13, K_U14, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		

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2.	Technology and bioprocess engineering - basic course	lecture	15	Exam	1	15	6	K_W01, K_W05, K_W08, K_W09, K_W11, K_U01, K_U11, K_U12, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
3.	Basics of toxicology	lecture	15	Graded Pass	1	15	4	K_W01, K_W07, K_W09, K_U01, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
ELECTIVE COURSES Seminars (one to choose from)								
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	1	K_W01, K_W05, K_W08, K_U06, K_U07, K_U11, K_U12, K_U13, K_U16, K_U17, K_U18, K_K01, K_K02, K_K06
ELECTIVE COURSES Practical placement - 4 weeks								
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.	Practical placement	practical placement	130	Pass	1	130	4	K_W09, K_U08, K_U15, K_U17, K_K03, K_K05, K_K06

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Predicted number of students starting the cycle

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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.	Animal cell and tissue cultures	lecture	15	Exam	1	15	4	K_W04, K_W06, K_W07, K_W08, K_U01, K_U02, K_U04, K_U13, K_U15, K_U17, K_K04
		classes	15	Graded Pass	1	15		
2.	Economics of production	classes	15	Graded Pass	1	15	1	K_W03, K_W09, K_W10, K_W11, K_U07, K_K06
ELECTIVE COURSES Monographic lectures (one or two to choose from – for 2 ECTS credits)								
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.	Monographic lectures	lecture	30	Graded Pass	1	30	2	K_W01, K_W04, K_W08, K_U17
SPECIALISATION COURSES - ELECTIVE (one to choose from)								
Specialisation: Industrial biotechnology								
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

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1.	Immunology – extended course	lecture	30	Exam	1	30	7	K_W01, K_W05, K_W09, K_U01, K_U05, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Analytical methods in biotechnology - basic course	classes	30	Graded Pass	1	30	5	K_W02, K_W03, K_W05, K_W09, K_U01, K_U13, K_U14, K_U15, K_U17, K_K04
Specialisation: Environmental biotechnology								
1.	Immunology – basic course	lecture	15	Exam	1	15	5	K_W01, K_W05, K_W09, K_U01, K_U05, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
2.	Biotechnological methods in environmental protection	lecture	15	Exam	1	15	7	K_W01, K_W05, K_W08, K_W09, K_U01, K_U11, K_U13, K_U15, K_U17, K_K04
		classes	30	Graded Pass	1	30		
		field work	15	Pass	1	15		
ELECTIVE COURSES Seminars (one to choose from). Bachelor's thesis and preparation for diploma examination - student is required to prepare bachelor's thesis								
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

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1.	Seminar	seminar	30	Pass	1	30	1	K_W01, K_W05, K_W08, K_U06, K_U07, K_U11, K_U12, K_U13, K_U16, K_U17, K_U18, K_K01, K_K02, K_K06
2.	Bachelor's thesis and preparation for diploma examination	final thesis	0	Pass	1	0	10	K_W01, K_W05, K_W08, K_U06, K_U07, K_U11, K_U12, K_U13, K_U16, K_U17, K_U18, K_K01, K_K02, K_K06

Uniwersytecka Komisja ds. Kształcenia
pozytywnie zaopiniowała
dnia 16.04.2019 r.

PROREKTOR
Katolickiego Uniwersytetu Lubelskiego
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Senat KUL zatwierdził

dnia 2019-04-25

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