

Study program: **BIOTa-DoD18 - biotechnology - (doctoral III. st., full-time form)**

Study field: **4. - biotechnology**

Study part

Compulsory subjects

Block - Pedagogical-educational activities										
Abbreviation	Name	Act.	Credit	Range	Ends.	Year	Sem.	Sign	Prerequisite	Teacher
KBT/ded312/21	Own Pedagogical Activity of Doctoral Student I		5		S	1	Z			
KBT/ded313/21	Own Pedagogical Activity of Doctoral Student II		5		S	1	L			
KBT/ded314/21	Own Pedagogical Activity of Doctoral Student III		5		S	2	Z			
KBT/ded315/21	Own Pedagogical Activity of Doctoral Student IV		5		S	2	L			
KBT/ded316/21	Own Pedagogical Activity of Doctoral Student V		5		S	3	Z			
KBT/ded317/21	Own Pedagogical Activity of Doctoral Student VI		5		S	3	L			
KBT/ded318/21	Own Pedagogical Activity of Doctoral Student VII		5		S	4	Z			
The pedagogical activity of the internal doctoral student is obligatory.										

In pedagogical-educational activities, the internal student is obliged to complete his / her own pedagogical activity of doctoral students I - VII and to obtain at least 35 credits.

Compulsory optional subjects

Block - Compulsory elective subjects										
Abbreviation	Name	Act.	Credit	Range	Ends.	Year	Sem.	Sign	Prerequisite	Teacher
KBT/ded300/21	Advances in Biotechnology		10	2P + 2S	S	1	Z	P		
KOJP/ded301/21	Professional English for PhD Students		10	2P + 2S	S	1	Z			
KBT/ded302/21	Medical and Pharmaceutical Biotechnologies for PhD Students		10	2P + 2S	S	1, 2	L			
KBT/ded303/21	Preparation of Projects and Grants in the Field of Biotechnology		10	2P + 2S	S	1, 2	L			
KBT/ded304/21	Industrial Biotechnology for PhD Students		10	2P + 2S	S	1, 2	L	P		
KBT/ded305/21	Agricultural Biotechnology for PhD Students		10	2P + 2S	S	1, 2	L	P		
KBT/ded306/21	Advances in Bioanalytical Chemistry		10	2P + 2S	S	1, 2	Z			
KBT/ded307/21	DNA Recombination and Genetic Transformation Technology		10	2P + 2S	S	1, 2	L	P		
KBT/ded308/21	Biotechnological Transformations of Biomass, Biofuels and Biorefineries		10	2P + 2S	S	1, 2	L	P		
KBT/ded309/21	Modern Methods for Studying the Structure, Properties and Activity of Compounds and Biomolecules		10	2P + 2S	S	1, 2	L	P		
KBT/ded310/21	Biosafety and Marketing of Biotechnology and its Products		10	2P + 2S	S	1, 2	L	P		

KBT/ded311/21	New Trends, Procedures and Methods in the Study of Living Organisms		10	2P + 2S	S	1, 2	L			
The student chooses at least five subjects from the offer of compulsory elective subjects.										

Optional subjects

Block - Study and pedagogical-educational activities										
Abbreviation	Name	Act.	Credit	Range	Ends.	Year	Sem.	Sign	Prerequisite	Teacher
KBT/ded319/21	Supervision of the Final Bachelor's Thesis		5		S	1, 2, 3, 4	L			
KBT/ded320/21	Elaboration of an Opinion for the Final Work of the Bachelor's Study		3		S	1, 2, 3, 4	L			
KBT/ded321/21	Co-authorship (or Authorship) of Created and Published Teaching Material		5		S	1, 2, 3, 4	L			
KBT/ded322/21	Independent Study of Literature according to the Recommendation of the Supervisor I		5		S	1, 2, 3, 4	Z			
KBT/ded323/21	Independent Study of Literature according to the Recommendation of the Supervisor II		5		S	1, 2, 3, 4	L			

Study part

Block - Creative activity										
Abbreviation	Name	Act.	Credit	Range	Ends.	Year	Sem.	Sign	Prerequisite	Teacher

KBT/ded324/21	Publication I in a Scientific Journal Registered in the Web of Science Databases Included in Q1 in JCF IF		50		S	1, 2, 3, 4	L	P		
KBT/ded325/21	Publication II in a Scientific Journal Registered in the Web of Science Databases Included in Q1 in JCF IF		50		S	1, 2, 3, 4	L	P		
KBT/ded326/21	Publication I in a Scientific Journal Registered in the Web of Science Databases Included in Q2 in JCF IF		40		S	1, 2, 3, 4	L	P		
KBT/ded327/21	Publication II in a Scientific Journal Registered in the Web of Science Databases Included in Q2 in JCF IF		40		S	1, 2, 3, 4	L	P		
KBT/ded328/21	Publication I in a Scientific Journal Registered in the Web of Science Databases Included in Q3 in JCF IF		25		S	1, 2, 3, 4	L	P		
KBT/ded329/21	Publication II in a Scientific Journal Registered in the Web of Science Databases Included in Q3 in JCF IF		25		S	1, 2, 3, 4	L	P		
KBT/ded330/21	Publication I in a Scientific Journal Registered in the Web of Science Databases Included in Q4 in JCF IF		15		S	1, 2, 3, 4	L	P		
KBT/ded331/21	Publication II in a Scientific Journal Registered in the Web of Science Databases Included in Q4 in JCF IF		15		S	1, 2, 3, 4	L	P		
KBT/ded332/21	Publication in a Scientific Journal Registered in the Web of Science or Scopus Databases without Inclusion in Q1-Q4 in JCF IF		10		S	1, 2, 3, 4	L			

KBT/ded333/21	Publication in a Peer-Reviewed Proceedings		5		S	1, 2, 3, 4	L			
KBT/ded334/21	Active Participation in a Foreign Scientific Conference (declared by a published contribution in the proceedings)		5		S	1, 2, 3, 4	L			
KBT/ded335/21	Active Participation in a National Scientific Conference (declared by a published contribution in the proceedings)		5		S	1, 2, 3, 4	L			
KBT/ded336/21	Member of the Research Team on a Foreign Scientific Project, Registered at UCM		10		S	1, 2, 3, 4	L			
KBT/ded337/21	Member of the Research Team on a National Scientific Project (eg APVV, VEGA, KEGA, OPVaI), Registered at UCM		5		S	1, 2, 3, 4	L			
KBT/ded338/21	Citation to the Publication Output Registered in the Web of Science or Scopus Databases (it must not be an autocitation, it must be an affiliation of		10		S	1, 2, 3, 4	L			
KBT/ded339/21	Obtaining an Internal Grant		10		S	1, 2, 3, 4	L			
KBT/ded340/21	Adoption of a New Experimental Methodology I		5		S	1, 2, 3, 4	Z			
KBT/ded341/21	Adoption of a New Experimental Methodology II		5		S	1, 2, 3, 4	L			
KBT/ded342/21	Presentation at the Seminar		5		S	1, 2, 3, 4	Z			

In the scientific part, the student is required to publish at least one experimental output in a scientific journal indexed in the Web of Science database and ranked in quartiles Q1–Q2 according to the Journal Impact Factor (JIF) or Journal Citation Indicator (JCI) within the Journal Citation Reports (JCR) database, and at least one output in a scientific journal indexed in the Web of Science or Scopus database ranked in quartiles Q1–Q4. For the Web of Science database, quartile ranking is assessed according to JIF or JCI in JCR, while for the Scopus database it is assessed according to the SCImago Journal Rank indicator (SJR) quartiles. In these published outputs, indexed in the Web of Science and Scopus databases, the doctoral student must have an adequate authorship share (an adequate authorship share is defined as a percentage equal to or greater than: $100\% / \text{the total number of authors listed on the evaluated publication}$), which is documented by an extract from the publication activity records in the Online Catalogue of the UCM University Library or the Central Register of Publication Activity (CREPČ). The student is required to obtain a minimum of 95 credits for creative activity.

State exams

Compulsory subjects

Block - State examination										
Abbreviation	Name	Act.	Credit	Range	Ends.	Year	Sem.	Sign	Prerequisite	Teacher
KBT/ded343/21	Dissertation Exam		30		SS	2				
KBT/ded344/21	Dissertation Thesis Defence		30		OB	4				

For successful completion of the state exam (dissertation exam + dissertation defense) the student will receive 60 credits. The total number of credits required to complete the doctoral study is 240 credits.

There may be additional signs for subjects in study programs

! - the subject is not implemented in the given academic year

+ - the subject is not implemented, possibly from the next academic year

- the subject is being implemented for the last time

Sign of the subject in the study plan:

P - profile subject of the study program