

PhD Program in Biotechnology



The PhD Program of Biotechnology offers a multi-disciplinary program covering the fields of microbial, industrial and medical biotechnology. The program focuses on providing practical training as well as theoretical background on relevant topics.

The field of biotechnology uses living organisms to generate controlled processes or even final products. Students pursuing this degree learn about a wide range of topics with a focus on microbiology, cellular biology, genetic engineering and biochemistry.

The program will provide learners with:

- Multi-disciplinary curriculum covering the fields of microbial, medical and industrial biotechnology;
- Skills on molecular techniques, microbial and biochemical tests
- An environment for independent scientific research
- An opportunity for exposure and exchange in their chosen field

Program structure and award requirements

Course Code	Course Name	Credit Points			Prerequisite Courses
		Theoretical Part	Practical Part	Total Credit Points	
1403803	Molecular Diagnosis of Diseases	2	2	3	
1403804	Genes and Mutations	3	-	3	
1403807	Immuno-Biotechnology	2	2	3	
1403808	Pharmacogenomics	3	-	3	
1403809	Bioprocessing	3	-	3	
1403810	Advanced specialized course	3	-	3	
1403811	Proteomics and Protein Engineering	3	-	3	1403708 or an equivalent course
1403812	Advanced Molecular Biology	2	2	3	1403702
1403813	Research Methods in Biotechnology	1	4	3	1403704
1403814	Advanced Fermentation Technology	2	2	3	1403709
1403815	Advanced Bioinformatics	2	2	3	1403721
1403816	Biological Waste Management	3	-	3	
1403817	Food Biotechnology	3	-	3	

Enrolled candidates are awarded the degree when

- passing courses with 18 credit hours with a CGPA of at least C⁺.
- passing an English language proficiency test as per the University regulations.
- passing a comprehensive exam
- successfully preparing and defending PhD thesis dissertation.

Career prospects of the graduates

This degree program prepares students for biotechnology careers by encompassing a broad range of subjects as they are trained on main biotechnology and molecular biology techniques. They can choose to focus on medical, industrial and microbial biotechnology.

Potential employers include universities, research institutions, and private companies. Earning the degree can improve likelihood of employment as science and engineering employers often prefer candidates with graduate degrees.

Students of the Master of Biotechnology are prepared to work

- in companies involved in biotechnology, pharmaceutical technology and microbiology;
- in research and development sector of pharmaceutical and biotechnology industries;
- in clinical pathology laboratories using their acquired molecular expertise;
- in quality control sector for food industries, environmental screening and biotechnology and pharmaceutical industries;
- in molecular analysis and microbiological testing of samples in various sectors;
- as researchers in the fields of microbiology, basic medical research and biotechnology.