

**BIOTECHNOLOGY PhD Program (on MSc)**

<b>REMEDIAL COURSES</b>				
<b>Dept.</b>	<b>Code</b>	<b>Course Name</b>	<b>CR.</b>	<b>ECTS</b>
CHEM	205	Introduction to Organic Chemistry and Biomacromolecules	NC	
GBE	203	Microbiology	NC	
GBE	205	Cell Biology	NC	
GBE	301	Biochemistry I	NC	
GBE	326	Experimental GBE I: Principles	NC	
GBE	341	Techniques in Genetic Engineering I	NC	
GBE	361	Biotransport Phenomena I	NC	
GBE	403	Molecular Biology I	NC	
<b>PROGRAM COURSES</b>				
<b>Dept.</b>	<b>Code</b>	<b>Course Name</b>	<b>CR.</b>	<b>ECTS</b>
BTEC	604	Current Topics in Biotechnology	3	10
		Free Elective I	3	8
		Free Elective II	3	8
		Free Elective III	3	8
		Free Elective IV	3	8
		Free Elective V	3	8
		Free Elective VI*	3	8
BTEC	690	PhD Seminar	NC	2
BTEC	691	Independent Study for Qualifying Exam	NC	30
BTEC	700	PhD Dissertation	NC	150
		TOTAL	21	240
<b>EXTRA/NON-DEGREE COURSES</b>				
<b>Dept.</b>	<b>Code</b>	<b>Course Name</b>	<b>CR.</b>	<b>ECTS</b>
		Extra/Non-degree	NC	

\* If a student did not take a research methods/methodologies course during MS work, he/she shall take one of the courses in Research Methodologies instead of Free Elective VI.

<b>Course Group</b>	<b>Description</b>
Free Elective I-VI	Unrestricted, by approval of advisor and BTEC department.
Research Methodologies	BTEC 550.
Extra/Non-degree	Optional non-credit (NC) courses that are not part of the program.
Remedial Courses	Undergraduate level courses offered by department.