

BIOTECHNOLOGY INTEGRATED PhD PROGRAM

Remedial Courses

Code		Courses	Prerequi	T	U	L	Credit	ECTS
CHEM	205	Introduction to Organic Chemistry and Biomacromolecules	-	2	2	0	3	6
GBE	203	Microbiology	-	2	1	3	4	7
GBE	205	Cell Biology	-	2	1	3	4	6
GBE	212	Classical and Molecular Genetics	-	2	2	0	3	6
GBE	222	Biometrics: Numerical and statistical methods for bioengineering	-	2	2	0	3	6
GBE	301	Biochemistry I	-	2	1	3	4	7
GBE	326	Experimental GBE I: Principles	-	2	0	2	3	6
GBE	341	Techniques in Genetic Engineering I	-	2	2	0	3	5
GBE	361	Biotransport Phenomena I	-	2	2	0	3	5
GBE	403	Molecular Biology I	-	3	0	0	3	6

FALL&SPRING SEMESTER

Kod Code		Dersler Courses	Onkoşul Prerequi site	T	U	L	Y Credit	AKTS ECTS
BTEC	501	BASIC BIOTECHNOLOGY	-	3	0	0	3	10
BTEC	555	BIOSTATISTICS	-	3	0	1	3	10
BTEC	590	RESEARCH SEMINAR	-	2	0	0	0	2
BTEC	604	CURRENT TOPICS IN BIOTECHNOLOGY	-	3	0	0	3	10
BTEC	560	SCIENTIFIC RESEARCH METHODS IN GENETIC ENGINEERING	-	3	0	0	3	10
BTEC	667	APPLIED BIOSTATISTICS AND EXPERIMENTAL DESIGN	-	3	0	0	3	10
BTEC	5XX	Department Elective I	-	3	0	0	3	8
BTEC	5XX	Department Elective II	-	3	0	0	3	8
BTEC	5XX	Department Elective III	-	3	0	0	3	8
BTEC	5-6XX	Department Elective IV	-	3	0	0	3	8
BTEC	6XX	Department Elective V	-	3	0	0	3	8
BTEC	6XX	Department Elective VI	-	3	0	0	3	8
BTEC	6XX	Department Elective VII	-	3	0	0	3	8
BTEC	6XX	Department Elective VIII	-	3	0	0	3	8
BTEC	6XX	Department Elective IX	-	3	0	0	3	8
BTEC	690	PhD Seminar	-	2	0	0	0	2
BTEC	691	INDEPENDENT STUDY FOR QUALIFYING EXAM	-	0	0	0	0	30
BTEC	700	THESIS IN PHD	-	0	0	0	0	150
GRAND TOTAL							42	306

DEPARTMENT ELECTIVES

Kod Code		Dersler Courses	Onkoşul Prerequi site	T	U	L	Y Credit	AKTS ECTS
BTEC	601	YEAST AND BACTERIAL BIOTECHNOLOGY	-	3	0	0	3	8
BTEC	602	ADVANCED MOLECULAR BIOLOGY TECHNIQUES	-	3	0	0	3	8
BTEC	603	ANALYTICAL BIOTECHNOLOGY	-	3	0	0	3	8
BTEC	605	DRUG METABOLISM	-	3	0	0	3	8
BTEC	606	TRANSGENICS AND GENE THERAPY	-	3	0	0	3	8
BTEC	607	DRUG DISCOVERY AND DEVELOPMENT	-	3	0	0	3	8
BTEC	608	CELL COMMUNICATION AND SIGNAL TRANSDUCTION MECHANISMS	-	3	0	0	3	8
BTEC	610	TISSUE ENGINEERING APPLICATIONS	-	3	0	0	3	8
BTEC	611	ADVANCED STEM CELL TECHNOLOGY	-	3	0	0	3	8
BTEC	612	REPRODUCTIVE GENETICS	-	3	0	0	3	8
BTEC	613	DEVELOPMENTAL BIOLOGY	-	3	0	0	3	8
BTEC	615	PROTEIN PURIFICATION AND ANALYSIS	-	3	0	0	3	8
BTEC	616	ADVANCED TOPICS IN ENZYME KINETICS	-	3	0	0	3	8
BTEC	618	ADVANCED CANCER GENETICS	-	3	0	0	3	8
BTEC	620	BIOMATERIALS IN TISSUE ENGINEERING	-	3	0	0	3	8
BTEC	621	MOLECULAR TOXICOLOGY	-	3	0	0	3	8
BTEC	623	NEUROSCIENCE	-	3	0	0	3	8
BTEC	624	CYTOBIOLOGY-I	-	3	0	0	3	8
BTEC	626	ADVANCED BIOREACTORS	-	3	0	0	3	8
BTEC	629	EUKARYOTIC GENE REGULATION	-	3	0	0	3	8
BTEC	630	CONTROLLED DRUG DELIVERY AND TARGETING SYSTEMS	-	3	0	0	3	8
BTEC	635	EUKARYOTIC CELL BIOLOGY	-	3	0	0	3	8
BTEC	638	MOLECULAR PHARMACOLOGY	-	3	0	0	3	8
BTEC	639	FERMENTATION BIOTECHNOLOGY	-	3	0	0	3	8
BTEC	640	NANOMEDICINE	-	3	0	0	3	8
BTEC	641	PROTEOMICS AND MASS SPECTROMETRY	-	3	0	0	3	8
BTEC	642	REGENERATIVE BIOLOGY AND BIOMEDICAL APPLICATIONS	-	3	0	0	3	8
BTEC	643	GENE EDITING TECHNOLOGIES	-	3	0	0	3	8
BTEC	644	PLANT BREEDING	-	3	0	0	3	8
BTEC	666	SYSTEMS BIOLOGY	-	3	0	0	3	8
BTEC	502	MEDICAL AND CLINICAL GENETICS	-	3	0	0	3	8

BTEC	503	ADVANCED MOLECULAR BIOLOGY		3	0	0	3	8
BTEC	504	PHARMACEUTICAL AND MEDICAL BIOTECHNOLOGY		3	0	0	3	8
BTEC	505	MICROBIOLOGY		3	0	0	3	8
BTEC	506	PLANT BIOTECHNOLOGY		3	0	0	3	8
BTEC	507	ADVANCED BIOCHEMISTRY		3	0	0	3	8
BTEC	509	PHARMAGENETICS AND PHARMAGENOMICS		3	0	0	3	8
BTEC	510	BIOTECHNOLOGY LABORATORY PROJECTS		3	0	0	3	8
BTEC	511	COMPARATIVE PHYSIOLOGY		3	0	0	3	8
BTEC	512	ECOLOGY		3	0	0	3	8
BTEC	513	INTRODUCTION TO BIOINFORMATICS		3	0	0	3	8
BTEC	514	CANCER GENETICS		3	0	0	3	8
BTEC	515	IMMUNOGENETICS		3	0	0	3	8
BTEC	516	INTRODUCTION TO NANOBIOTECHNOLOGY		3	0	0	3	8
BTEC	517	IMMUNOBIOLOGY		3	0	0	3	8
BTEC	518	FOOD AND BIOETHICS		3	0	0	3	8
BTEC	519	MICROBIOLOGICAL ASPECTS OF FOOD SYSTEMS		3	0	0	3	8
BTEC	521	GENE EXPRESSION		3	0	0	3	8
BTEC	522	SPECIAL TOPICS IN BIOTECHNOLOGY		3	0	0	3	8
BTEC	527	BIOREACTORS		3	0	0	3	8
BTEC	528	PROCESSING OF BIOACTIVE EXTRACTS FROM NATURAL MATERIALS		3	0	0	3	8
BTEC	532	DRUG DELIVERY SYSTEMS AND INSTRUMENTS		3	0	0	3	8
BTEC	533	BIOMATERIALS IN TISSUE ENGINEERING		3	0	0	3	8
BTEC	534	TRANSGENICS AND GENE THERAPY		3	0	0	3	8
BTEC	535	MAMMALIAN TISSUE ENGINEERING		3	0	0	3	8
BTEC	536	STEM CELL BIOLOGY		3	0	0	3	8
BTEC	537	DOSAGE IN PROTEINS AND PEPTIDES		3	0	0	3	8
BTEC	538	NUTRIGENOMICS		3	0	0	3	8
BTEC	539	PROTEIN CHEMISTRY		3	0	0	3	8
BTEC	550	METHODS IN SCIENTIFIC RESEARCH		3	0	0	3	8
BTEC	582	SELECTED TOPICS: SIGNAL TRANSDUCTION PATHWAYS		3	0	0	3	8
BTEC	584	SELECTED TOPICS: ADULT NEUROGENESIS		3	0	0	3	8
BTEC	585	SELECTED TOPICS: MICROBIAL METABOLISM		3	0	0	3	8
BTEC	586	SELECTED TOPICS: APPLICATIONS OF BIOSTATISTICS IN RESEARCH		3	0	0	3	8
BTEC	587	SELECTED TOPICS: ENCAPSULATION TECHNOLOGY AND APPLICATIONS		3	0	0	3	8

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Remedial Courses: Undergraduate level courses offered by department

Department Elective I,II,III, IV, V : BTEC 6XX

Department Elective VI, VII, VIII, IX: BTEC 6XX, BTEC 5XX