



**Biochemistry (BIOC)**

**First Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
ENGL201	Composition and Research Skills	3	ENGL151	
CHEM200	General Chemistry	3	ENGL101 - CHEM160	CHEM200L
BIOL200	General Biology I	3	ENGL051 - ENGL101 - BIOL160	BIOL200L
BIOL200L	General Biology I Lab	1	ENGL051 - ENGL101	BIOL200
CHEM200L	General Chemistry Lab	1	ENGL101 - CHEM160	CHEM200
CSCI200	Introduction to Computers	3	ENGL051	
ARAB200	Arabic Language and Literature	3		
Total		17		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
BMED205	Biophysics	3	BIOL200	
BIOL385L	Microbiology Lab	1	ENGL051 - ENGL101	BIOL385
CHEM250	Organic Chemistry I	3	ENGL051 - ENGL101 - CHEM200	
ENGL251	Communication Skills	3	ENGL201	
BIOL385	Microbiology	3	ENGL051 - ENGL101 - BIOL200	BIOL385L
BIOL275	Cell and Molecular Biology	3	BIOL200	BIOL275L
BIOL275L	Cell and Molecular Biology Lab	1	BIOL200	BIOL275
Total		17		

**Second Year**

**Fall Semester**

Code	Title	Credits	Prerequisites	Corequisites
BIOL365	Genetics	3	BIOL275	
BIOC300	Biochemistry I (General)	4	BIOL200 - CHEM250	
CHEM260	Analytical Chemistry	3	CHEM200	CHEM260L
CHEM260L	Analytical Chemistry Lab	1	CHEM200	CHEM260
CHEM300	Organic Chemistry II	3	ENGL051 - ENGL101 - CHEM250	
CHEM300L	Organic Chemistry Lab	2	ENGL051 - ENGL101 - CHEM250	
Total		16		

**Spring Semester**

Code	Title	Credits	Prerequisites	Corequisites
MATH245	Statistics for Health Sciences	3	ENGL051 - ENGL101 - ENGL151	
BIOC350L	Biochemistry II Lab	1		BIOC350
BIOC350	Biochemistry II (Intermediary)	3	BIOC300	BIOC350L
CULT200	Introduction to Arab - Islamic Civilization	3		
BIOL360L	Human Physiology & Anatomy Lab	1		BIOL360
BIOL360	Human Physiology & Anatomy	4	BIOL200	BIOL360L
Total		15		

### Third Year

#### Fall Semester

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
CHEM310	Physical Chemistry I	3	CHEM200	
BIOC450	Advanced Lab Techniques in Biochemistry	2		BIOC445
BIOC445	Biotechnology	3	BIOL365 - BIOC300	
BIOC400	Biochemistry III (Protein Structure & Function)	3	BIOC350	
	Elective	3		
Total		17		

#### Spring Semester

Code	Title	Credits	Prerequisites	Corequisites
	Elective	3		
BMED450	Clinical Chemistry	3	BIOC300	BMED450L
BMED450L	Clinical Chemistry Lab	1		BMED450
	Elective	3		
BIOC375	Enzymology	3	BIOC350	
BIOL490	Seminar	1		BIOC485
BIOC485	Modern Topics in Biochemistry	3	BIOC350	
Total		17		

### Major Elective Courses

Code	Title	Credits	Prerequisites	Corequisites
BIOC390	Bioinformatics	3	BIOC300	
BIOC480	Molecular Genetics	3	BIOL365	
BIOC495	Biochemistry Project	3	BIOC400	
BIOL315	Animal Behaviour	3	BIOL200	BIOL360
BIOL415	Endocrinology	3	BIOL360	
BIOL425	Immunology	3	BIOL275 - BIOL360	
BIOL485	Neurobiology	3	BIOL360	
BMED435	Carcinogenesis and Oncology	3	BIOL275	
CHEM465	Environmental Chemistry	3	CHEM300	
FDSC370	Food Chemistry	3	CHEM250	
FDSC435	Food Toxicants and Additives	3	CHEM250	
FDSC475	Food Engineering	3	CHEM260	
NUTR250	Basic Nutrition	3		BIOL200