

Bachelor Degree of Biochemistry

Curricular Plan

1 st Semester (Common First Year)				
Course Code	Course Title	Requisite		Credits
		Pre.	Syn.	
ENG 100	English Language	-	-	6
MATH 101	Differential Calculus	-	-	3
ENT 101	Entrepreneurship	-	-	1
CHEM 101	General Chemistry	-	-	4
ARAB 100	Written skills	-	-	2
Total of Credit Hours				16

2 nd Semester (Common First Year)				
Course Code	Course Title	Requisite		Credits (Lect.- Exer.-Pract.)
		Pre.	Syn.	
ENG 110	English Language	-	-	6
CI 101	University skills	-	-	3
CT 101	Computer Skills	-	-	3
STAT 101	Introduction to Statistics	-	-	3
CHS 101	Fitness and healthy culture	-	-	1
Total of Credit Hours				16

3 rd Semester				
Course Code	Course Title	Requisite		Credits (Lect.- Exer.-Pract.)
		Pre.	Syn.	
BCH 103	Biochemical fundamentals of Life	-	-	2 (2+0+0)
ZOO 103	Principles in General Zoology	-	-	3 (2+0+2)
CHEM 108	Introduction in Organic Chemistry	-	-	4 (3+0+2)
MBIO 140	Microbiology	-	-	3 (2+0+2)
BCH 202	General Biochemistry	-	-	4 (3+0+2)
Elective Course group (A)			-	2 (2+0+0)
Total of Credit Hours				18

4 th Semester				
Course Code	Course Title	Requisite		Credits (Lect.- Exer.-Pract.)
		Pre.	Syn.	
PHYS 102	General Physics	-	-	4 (3+0+2)
CHEM 233	Chemical Thermodynamics	-	-	3 (2+0+2)
CHEM 251	Analytical Chemistry	-	-	3 (2+0+2)
BCH 303	Protein Biochemistry	BCH 202	-	3 (2+0+2)
BCH 312	Biochemical calculations	BCH 202	-	3 (2+0+2)
Elective Course group (A)			-	2 (2+0+0)
Total of Credit Hours				18

5 th Semester				
Course Code		Requisite		Credits (Lect.- Exer.- Pract.)
		Pre.	Syn.	
BCH 320	General Enzymology	BCH 303	-	3 (3+0+0)
BCH 322	Experiments in Enzymology		BCH 320	2 (0+•+4)
BCH 361	Molecular Biology		-	4 (3+•+2)
BCH 452	Biomembrane and Cell signaling	BCH 202	-	2 (2+•+0)
Elective course (Biochem. dept. or other)				2 (2+0+0)
Elective course (Biochem. dept. or other)				3 (2+0+2)
Elective Course group (A)			-	2 (2+0+0)
Total of Credit Hours				18

6 th Semester				
Course Code	Course Title	Requisite		Credits (Lect.-Exer.-Pract.)
		Pre.	Syn.	
BCH 332	Physical Biochemistry	BCH 303	-	3 (3+•+0)
BCH 340	Metabolism-1	BCH 320	-	3 (3+•+0)
BCH 333	Experiments in Biophysical Biochemistry	BCH 312	BCH 332	2 (2+•+4)
BCH 462	Biotechnology and Genetic engineering	BCH 361	-	4(2+0+4)
BCH 471	Blood Biochemistry	BCH 320	-	3 (2+0+2)
Elective course from Biochemistry Dept.			-	3)Elective 2+•(2+ Course Group (A)
Total of Credit Hours				18

7 th Semester				
Course Code	Course Title	Requisite		Credits (Lect.- Exer.- Pract.)
		Pre.	Syn.	
BCH 440	Metabolism- II	BCH 340	-	3 (3+0+0)
BCH 447	Practical Metabolism		-	2(0+0+4)
BCH 463	Bioinformatics	BCH 361	-	3 (1+0+4)
BCH 477	Immunochemistry	BCH 471	-	2(2+0+0)
BCH 453	Hormones	BCH 340 BCH 452		2(2+0+0)
BCH 484	Introduction in Scientific Research skills	BCH 333 BCH 361		2(1+2+0)
Elective course (Biochem. dept. or other)			-	2 (2+0+0)
Elective Course group (A)			-	2(2+0+0)
Total of Credit Hours				18

8 th Semester				
Course Code	Course Title	Requisite		Credits (Lect.- Exer.-Pract.)
		Pre.	Syn.	
BCH 445	Biochemistry of Nutrition	BCH 303	-	3(2+0+2)
BCH 496	Field Training in Biochemistry	BCH 361 BCH 484 BCH 340	-	5(0+0+10)
BCH 493	Research Project	BCH 484 Finishing 115 h	-	2(0+0+4)
Elective course from Biochemistry Dept.				2 (2+0+0)
Elective course from Biochemistry Dept.				2 (2+0+0)
Total of Credit Hours				14

List of the Elective Courses

Course Code	Course Title	Requisite		Credits (Lect.- Exer.- Pract.)	Level
		Pre.	Syn.		
BCH 350	Plant Biochemistry	BCH 303	-	2(2+0+0)	5 th
BCH 476	Chemistry of Antibiotics	BCH 202	-	2(2+0+0)	5 th
ZOO 352	Principles of Genetics	-	-	2(1+0+2)	5 th
MBIO 250	General Virology	-	-	3(2+0+2)	5 th
MBIO 260	General Bacteriology	-	-	3(2+0+2)	5 th
CHEM 341	Heterocyclic Organic Chemistry	CHEM 108	-	2(2+0+0)	5 th
FED 420	Biotechnology for food	-	-	2(2+0+0)	5 th
BCH 472	Biochemistry of Biological fluids	BCH 320	-	3(2+0+2)	6 th
BCH 473	Biomarkers in Health and Diseases	BCH 320	-	3(2+0+2)	6 th
BCH 450	Biochemistry of Specialized Tissues	BCH 340	-	2(2+0+0)	7 th
BCH 434	Biophysics	BCH 340	-	2(2+0+0)	7 th
BCH 441	Bioenergetics	BCH 320	-	2(2+0+0)	8 th
BCH 464	Gene Expression	BCH 361	-	2(2+0+0)	8 th
BCH 465	Molecular Genetics	BCH 303	-	2(2+0+0)	8 th
BCH 436	Nanotechnology	BCH 332	-	2(2+0+0)	8 th
BCH 454	Toxicology & Carcinogens	BCH 440	-	2(2+0+0)	8 th
BCH 466	Molecular Biology of Cancer	BCH 361 BCH 452	-	2(2+0+0)	8 th

List of Courses [Group A] (Student elects 8 credit hours)

Course Code	Course Title	Pre-requisite	Credits (Lect. – Exer. - Pract.)
IC 100	Studies in the Biography of the Prophet	-	2 (2+0+0)
IC 101	Introduction of Islamic Culture	-	2 (2+0+0)
IC 102	Islam and Building up the Society	-	2 (2+0+0)
IC 103	Economic System in Islam	-	2 (2+0+0)
IC 104	Political system in Islam	-	3 (2+0+1)
IC 105	Human Rights	-	3 (2+0+1)
IC 106	Islamic Jurisprudence	-	2 (2+0+0)
IC 107	Ethics of Occupation	-	2 (2+0+0)
IC 108	Contemporary Issues	-	2 (2+0+0)
IC 109	Woman and Her Developmental Role	-	2 (2+0+0)

List of Service courses offered to other departments

Course code	Course Name	Credits	Prereq.	Benefitting Departments
BCH 101	General Biochemistry	4 (3+0+2)	--	College of Science/Computer Science
BCH 102	Cellular Biochemistry	2 (1+2+0)	--	Chemistry Department
BCH 220	Fundamentals of Blood Biochemistry	2(1+0+2)	--	Microbiology Department