



### Bachelor of Science in Biochemistry Model Study Plan (2022-2023 Cohort onwards)

**For Students Admitted to the University from the Fall Semester**  
**Total Degree Credit hours: 120**

Semester	Course Code	Course Title	Cr	Specialization	Course type	Semester	Course Code	Course Title	Cr	Specialization	Course type
Year 1 (Fall)	CHEM111	General Chemistry I	3	Specialization		Year 1 (Spring)	CHEM113	General Chemistry II for Science Students	3	Specialization	
	MATH105	Calculus I	3	Gen Ed Course (Cluster 1: Area 5: Quantitative Reasoning)			CHEM115	General Chemistry Lab	1	Specialization	
	PHYS105	General Physics I	3	Gen Ed Course (Cluster 3: Area 1: Natural Sciences)			CISP112	Introduction To Programming	3	Support Course	
	ENGS110	Writing for Research	3	Support Course			BIOC100	Basic Biology I	3	Support Course	
	ESPU102	Introduction to Academic English For Science	3	Gen Ed Course (Cluster 2: Area 2: English Communication)				Student choice	3	Gen Ed Course (Cluster 2: Area 1: Humanities and Fine Arts)	
Year 2 (Fall)	BIOC205	Basic Biology II	3	Specialization		Year 2 (Spring)	CHEM222	Analytical Chemistry	4	Specialization	
	CHEM241	Organic Chemistry I	3	Specialization			CHEM242	Organic Chemistry II	3	Specialization	
	CHEM245	Organic Chemistry (Lab)	1	Specialization			BCHM361	Biochemistry I	4	Specialization	
	CHEM253	Physical Chemistry I	3	Specialization			BIOC214	General Biology Lab	1	Specialization	
	GET112	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 3: Fourth Industrial Revolution)			GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen Ed Course (Cluster 1: Area 1: Innovation and Entrepreneurship)	
Year 3 (Fall)		Effective	3	Gen Ed Course (Cluster 2: Area 2: Social and Behavioral Sciences)		Year 3 (Spring)					
	BCHM362	Biochemistry II	3	Specialization				Student choice	3	Major Elective	
	GESU121	Sustainability	3	Gen Ed Course (Cluster 3: Area 2: Sustainability)				Student choice	3	Major Elective	
		Effective	3	Gen Ed Course (Cluster 3: Area 4: Critical Thinking)			BIOC270	General Genetics	3	Specialization	
	ROE230	Microbiology	3	Specialization			HSD105	Emirates Studies	3	Gen Ed Course (Cluster 2: Area 3: Emirates Society)	
Year 4 (Fall)	SLMI100/SLMI101	Islamic Culture/Biography of the Prophet "Sira"	3	Gen Ed Course (Cluster 2: Area 4: Islamic Culture)		Year 4 (Spring)	STAT235	Statistics for Biology	3	Support Course	
							BCHM489	Molecular Biology Techniques	1	Specialization	
	BCHM472	Protein Structure and Function	3	Specialization			BCHM418	Research Project	3	Specialization	
	BCHM462	Clinical Biochemistry	3	Specialization				Student choice	3	Major Elective	
Year 4 (Fall)						Year 4 (Spring)		Student choice	3	Free Elective	
								Student choice	3	Major Elective	
								Student choice	3	Major Elective	
								Student choice	3	Major Elective	
								Student choice	3	Major Elective	

### Bachelor of Science in Biochemistry Model Study Plan (2025-2026 Cohort onwards)

**For Students Admitted to the University from the Fall Semester**  
**Total Degree Credit hours: 120**

Semester	Course Code	Course Title	Cr	Specialization	Course type	Semester	Course Code	Course Title	Cr	Specialization	Course type
Year 1 (Fall)	CHEM111	General Chemistry I	3	Specialization		Year 1 (Spring)	CHEM113	General Chemistry II for Science Students	3	Specialization	
	MATH105	Calculus I	3	Specialization			CHEM115	General Chemistry Lab	1	Specialization	
	PHYS105	General Physics I	3	Specialization			CISP110	Algorithm and Problem Solving	3	Support Course	
	ENGS110	Writing for Research	3	Support Course			BIOC100	Basic Biology I	3	Support Course	
	GEEM110	Contemporary Emirati Studies	3	Gen. Ed. Theme 1: UAE National Identity			GEAE101	Academic English for Humanities and STEM	3	Gen. Ed. Theme 2: Academic Language Proficiency	
Year 2 (Fall)						Year 2 (Spring)	STAT235	Statistics for Biology	3	Support Course	
	BIOC205	Basic Biology II	3	Support course							
	BIOC214	General Biology Lab	1	Specialization			CHEM222	Analytical Chemistry	4	Specialization	
	CHEM241	Organic Chemistry I	3	Specialization			CHEM242	Organic Chemistry II	3	Specialization	
	CHEM245	Organic Chemistry (Lab)	1	Specialization			BCHM361	Biochemistry I	4	Specialization	
Year 3 (Fall)	CHEM253	Physical Chemistry I	3	Specialization		Year 3 (Spring)	CHEM270	General Genetics	3	Specialization	
	GET113	Introduction to Artificial Intelligence	3	Gen. Ed. Theme 3: Innovation			BIOC275	Genetics Laboratory	1	Specialization	
	GET113	Introduction to Artificial Intelligence	3	Gen. Ed. Theme 3: Innovation			CHEM355	Physical Chemistry Lab I	1	Specialization	
	GEIE222	Fundamentals of Innovation and Entrepreneurship	3	Gen. Ed. Theme 4: Entrepreneurship							
Year 4 (Fall)	BCHM362	Biochemistry II	3	Specialization		Year 4 (Spring)		Student choice	3	Major Elective	
		Effective	3	Support Elective				Student choice	3	Support Elective	
		Effective	3	Major Elective			CHEM321	Instrumental Analysis I	4	Specialization	
	ROE230	Microbiology	3	Specialization				Student choice	3	Free Elective	
	GESU121	Sustainability	3	Gen. Ed. Theme 5: Sustainability			BCHM489	Molecular Biology Techniques	1	Support Course	
Year 4 (Fall)		Effective	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11		Year 4 (Spring)		Student choice	3	Gen. Ed. Theme 6 or 7 or 8 or 9 or 10 or 11	
	BCHM472	Protein Structure and Function	3	Specialization			BCHM418	Research Project	3	Specialization	
	BCHM462	Clinical Biochemistry	3	Specialization				Student choice	3	Major Elective	
	BCHM419	Internship	6	Internship				Student choice	3	Free Elective	