

## Study Plan

### Chemistry Program 2023-2024

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or
Level 1	105115-2	History of the Kingdom	Required	-	2	Institution
	201104-4	General Biology	Required	-	4	College
	202112-3	Introduction to Mathematics	Required	-	3	College
	2031204-4	General Physics 1	Required	-	4	College
	999801-2	English for Academic Purposes 1	Required	-	2	Institution
Level 2	2021204-4	Calculus 1	Required	202112-3	4	College
	204101-4	General Chemistry 1	Required	-	4	College
	2051204-3	Introduction to Biotechnology	Required	-	3	College
	999802-2	English for Academic Purposes 2	Required	999801-2	2	Institution
	990211-2	Arabic Language Skills	Required	-	2	Institution
	990311-2	University Study Skills	Required	-	2	Institution
Level 3	990111-2	Fundamentals of Islamic Culture	Required	-	2	Institution
	2042101-2	Quantum chemistry	Required	204101- 4	2	Department
	2042102-2	Inorganic Chemistry 1	Required	204101-4	2	Department
	2042103-3	General Chemistry 2	Required	204101-4	3	Department
	2042104-3	Chemistry of Volumetric and Gravimetric Analysis	Required	204101-4	3	Department
	2042105-3	Organic Chemistry 1	Required	204101-4	3	Department
	999803-2	English for Academic Purposes 3	Required	999802-2	2	Institution
Level 4	990112-2	Islamic Culture (Morals and Values)	Required	990111-2	2	Institution
	2042201-3	Chemistry of Spectral Analysis	Required	-	3	Department
	2042202-3	Thermodynamics	Required	2042103-3	3	Department
	2042203-3	Organic Chemistry 2	Required	2042105-3	3	Department
	2042204-3	Inorganic Chemistry 2	Required	2042102-2	3	Department
	999804-2	English for Academic Purposes 4	Required	999803-2	2	Institution
Level 5	2043101-3	Coordination Chemistry	Required	2042204-3	3	Department
	2043102-3	Electrochemistry	Required	2042103-3	3	Department

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	2043103-3	Chemical kinetics	Required	2042103-3	3	Department
	2043104-3	Chromatographic Separation Methods	Required	2042104-3	3	Department
	2043105-2	Stereochemistry	Required	2042203-3	2	Department
	2043106-3	Biochemistry	Required	2042203-3	3	Department
	999819-2	Special English for Science	Required	-	2	Institution
Level 6	990313-2	Islamic Culture 3 (Social system in Islam)	Required	-	2	Institution
	2043201-2	Organometallic Chemistry	Required	2042203-3	2	Department
	2043202-3	Heterocyclic Chemistry	Required	2042203-3	3	Department
	2043203-2	Solid State Chemistry	Required	2042101-4	2	Department
	2043204-2	Group-Theory	Required	-	2	Department
	2043205-2	Chemistry of Environmental Analysis	Required	2042104-3	2	Department
	2043206-2	Physical Organic Chemistry	Required	2042203-3	2	Department
2043207-2	Inorganic reactions mechanism	Required	2043101-3	2	Department	
Level 7	990414-2	Islamic Culture 4 (Human rights)	Required	2004313-2	2	Institution
	2044101-3	Organic Spectroscopy	Required	2042203-3	3	Department
	2044102-2	Inorganic Spectroscopy	Required	2043207-2	2	Department
	2044103-2	Principles of Nanotechnology	Required	990414-2	2	Department
	2044104-3	Surface Chemistry and Catalysis	Required	2043103-3	3	Department
	2044214-2	Industrial Chemistry	Required	-	2	Department
	2044215-2	Modern Trends in Chemistry	Required	-	2	Department
		Elective 1	Elective	-	2	Institution
	2044105-2	Cooperative Training.	Elective	--	2	Department
2044110-2	Radio Nuclear Chemistry	Elective	--	2	Department	
Level 8	2044111-2	Natural Products	Required	-	2	Department
	2044201-3	Graduation project	Required	-	3	Department
	2044202-2	Polymer Chemistry	Required	2042203-3	2	Department
	2044203-2	Chemistry of Petroleum and Petrochemicals	Required	2043104-3	2	Department

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	2044204-2	Material science	Required	2044103-2	2	Department
	2044206-2	Biophysical Chemistry	Required	2043106-3	2	Department
	2044205-2	Molecular spectroscopy	Elective	--	2	Department
	2044207-2	Corrosion chemistry	Elective	--	2	Department
	2044210-2	Applications of Nanotechnology	Elective	2044103-2	2	Department
	2044212-2	Computational Chemistry	Elective	--	2	Department
	2044213-2	Water desalination	Elective	--	2	Department

\* Include additional levels (for three semesters option or if needed).

\*\* Add a table for the courses of each track (if any)

### Institutional Elective Courses:

Level	Course Code	Course Title	Pre-Requisite Courses	Credit Hours
Level 7	990314-2	French Language	-	2
	990315-2	Chinese Language	-	2
	999809-2	Presentation Skills	-	2
	999814-2	IELTS Preparation	-	2
	999815-2	Academic Writing	-	2
	999821-2	English and the 21 <sup>st</sup> Century Skills	-	2

### Program (Department) Elective Courses:

Level	Course Code	Course Title	Pre-Requisite Courses	Credit Hours
Level 7	2044105-2	Cooperative Training.	--	2
	2044110-2	Radio Nuclear Chemistry	--	2
	2044205-2	Molecular spectroscopy	--	2
Level 8	2044207-2	Corrosion chemistry	--	2
	2044210-2	Applications of Nanotechnology	2044103-2	2
	2044212-2	Computational Chemistry	--	2
	2044213-2	Water desalination	--	2