ملخص خطة الكيمياء 3 فصول يبدأ العمل بها من 2023 1

Year	Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours			Contact Hours				Type of requirements (Institution, College or Department)
						L	P	Total	L	Tutorial	P	Total	
Year 1	Level 1	CHEM 101	General Chemistry	R		3	1	4	3	0	2	5	College
		ENGL 104	English Language 1	R		3	0	3	10	0	0	10	College
		ISLM 101	Islamic Culture 1	R		2	0	2	2	0	0	2	University
		ARAB 102	Arabic Editing	R		2	0	2	2	0	0	2	University
					TOTAL	10			19				
	Level 2	MATH 101	General Mathematics	R		3	0	3	3	0	0	3	College
		ENGL 105	English Language 2	R	ENGL 104	3	0	3	10	0	0	10	College
		PHYS 101	General Physics	R		3	1	4	3	0	2	5	College
					TOTAL	10			18				
	Level 3	MATH 201	Calculus	R	MATH 101	3	0	3	3	0	0	3	department
		ENGL 106	English Language 3	R	ENGL180	3	0	3	10	0	0	10	College
		CHEM 201	General and physical Chemistry	R	CHEM101	3	1	4	3	0	2	5	department
					TOTAL	10			18				
Year 2	Level 4	BIO 101	General Biology	R		3	1	4	3	0	2	5	College
		CHEM 231	Aliphatic organic Chemistry	R	CHEM101	2	1	3	2	0	2	4	department
		ISLM 102	Islamic Culture 2	R		2	0	2	2	0	0	2	University
					TOTAL	9			11				
	Level 5	CHEM 211	Volumetric Analytical Chemistry	R		2	1	3	2	0	2	4	department
		CHEM 221	Chemistry of Main Groups	R		3	1	4	3	0	2	5	department
		MATH 202	Differential Equations	R	MATH201	3	0	3	3	0	0	3	department
					TOTAL	10			12				
	Level 6	CHEM 212	Chemistry of Gravimetric Analysis	R	CHEM 211	2	1	3	2	0	2	4	department
		CHEM 232	Aromatic Organic Chemistry	R	CHEM 231	2	1	3	2	0	2	4	department
		CHEM 241	Thermodynamics	R	CHEM 201	2	1	3	2	0	2	4	department
					TOTAL	10			12				
Year 3	Level 7	CHEM 342	Kinetic Chemistry	R	CHEM 241	2	1	3	2	0	2	4	department
		CHEM 322	Chemistry of Transition Elements	R	CHEM 221	3	1	4	3	0	2	5	department
		CHEM 333	Heterocyclic Organic Chemistry	R	CHEM 232	2	1	3	2	0	2	4	department
					TOTAL	10			13				
	Level 8	CHEM 344	Electrochemistry	R	CHEM 241	2	1	3	2	0	2	4	department
		CHEM 343	Surface Chemistry & Catalysis	R	CHEM 241	3	0	3	3	0	0	3	department
		CHEM 335	Organic Reaction Mechanisms	R	CHEM 232	2	1	3	2	0	2	4	department
		CHEM 437	Stereochemistry	R	CHEM 232	2	0	2	2	0	0	2	department
					TOTAL	11			13				
	Level 9	CHEM 323	Co-ordination Chemistry	R	CHEM 322	2	1	3	2	0	2	4	department
		CHEM 447	Quantum Chemistry	R	MATH 202	3	0	3	3	0	0	3	department

		CHEM 314	Electrochemical analysis methods	R	CHEM 344	2	1	3	2	0	2	4	department
		CHEM 334	Spectroscopy of Organic Compounds	R	CHEM 232	2	0	2	2	0	0	2	department
					TOTAL	11			13				
Year 4	Level 10	CHEM 436	Chemistry of Natural Products	R	CHEM 322	2	1	3	2	0	2	4	department
		CHEM 424	Lanthanides & Actinides	R	CHEM 344	2	1	3	2	0	2	4	department
		CHEM 415	Methods of Instrumental analysis	R	CHEM 232	3	1	4	3	0	2	5	department
					TOTAL	10			13				
	Level 11	CHEM 446	Polymer Chemistry	R	CHEM 342	2	0	2	2	0	0	2	department
		CHEM 491	Graduation Project	R	MATH 202	1	2	2	1	0	2	3	
		CHEM 313	Chromatographic Analysis	R	CHEM 212	2	1	3	2	0	2	4	department
		CHEM 439	Principles of Biochemistry	R	CHEM 232	2	1	3	2	0	2	4	department
					TOTAL	10			13				
	Level 12	CHEM 445	Solution Chemistry	R	CHEM 344	2	1	3	2	0	2	4	department
		CHEM 425	Group Theory	R	CHEM 322	2	0	2	2	0	0	2	department
		CHEM 438	Organic applied chemistry	R	CHEM 232	2	1	3	2	0	2	4	department
		CHEM 448	Photochemistry	R	CHEM 447	2	0	2	0	0	0	2	department
					TOTAL	10			12				
					Over all total	85	26	121	115	0	50	167	