

Kingdom of Saudi Arabia
Ministry of Education
Majmaah University
College of Education - Zulfi
Department of Chemistry



Study plan of Chemistry program

Table 1 : Percentages' Courses

No.	Module	Percentage
1	Education Skills	18.05%
2	General Sciences	10.41%
3	Chemical Sciences	59.02%
4	Compulsory(University elective studies)	8.33%
5	Practical Training	4.16%

The portion of elective studies is 8.33 %. The student may include any courses taught at MU in the elective studies.

Table 2: Courses Requirement

Requirement	Type	Total Credit Hours	Percentage	ECST
University	Compulsory	12	8.33%	20.4
	Optional	26	-	
College	Compulsory	32	22.22%	54.4
	Optional	-	-	
Department	Compulsory	100*	69.44%	170
	Optional	-	-	
Free Courses		-	-	
Total hours and percentage		144	100%	244

Table 3: University Requisite

No.	Code	Course	Credit Hours	Prerequisite	Observations
1	SALM 101	Introduction to Islamic Culture	(2+0+0) 2	-----	6 Hours Selecting 3 from 4
2	SALM 102	Islam and Society	(2+0+0) 2	-----	
3	SALM 103	Economic System in Islam	(2+0+0) 2	-----	
4	SALM 104	The Basics of the Political System in Islam	(2+0+0) 2	-----	
5	AR AB 101	Arabic Language Skills	(2+0+0) 2	-----	2 Hours Selecting 1 from 2
6	AR AB 103	Arabic Editing	(2+0+0) 2	-----	
7	SOCI 101	Contemporary Social Issues	(2+0+0) 2	-----	4 Hours Selecting 2 from 7
8	ENT 101	Business Leadership	(2+0+0) 2	-----	
9	FCH 101	Family and Childhood.	(2+0+0) 2	-----	
10	HAF 101	The basics of Health and Fitness	(2+0+0) 2	-----	
11	LHR 101	Laws and Human Rights	(2+0+0) 2	-----	
12	VOW 101	Voluntary Work	(2+0+0) 2	-----	
13	ENG 101	English Language	(2+0+0) 2	-----	
Total Number of Credit hours			26		

Table 4: Compulsory College Requisites

NO.	CODE	SUBJECT	CREDIT HOURS	Prerequisite
1	EDU 116	Teaching Techniques and Communication Skills	(2+0+0) 2	
2	EDU 117	Fundamentals of Islamic Education	(2+0+0) 2	
3	EDU 118	The System and Policy of Education in KSA	(2+0+0) 2	
4	EDU 126	Developmental Psychology	(2+0+0) 2	
5	EDU 216	Psychological Health	(2+0+0) 2	EDU 126
6	EDU 217	Principles of Educational Research	(2+0+0) 2	
7	EDU 226	Educational Psychology	(2+0+0) 2	EDU 126
8	EDU316	Administration and Educational Planning	(2+0+0) 2	
9	EDU317	Production of E-learning	(2+0+0) 2	EDU 116
10	EDU 326	Teaching Strategies	(2+0+0) 2	
11	EDU 327	Curricula	(2+0+0) 2	
12	EDU 416	Modern Trends in Teaching Strategies	(2+0+0) 2	EDU 326
13	EDU 417	Educational Evaluation	(2+0+0) 2	

14	EDU426	Practicum	(0+0+6) 6	120 Successful Hours. EDU 416 EDU 326
Total Number of Credit hours			32	

Table 5 : Compulsory Department Requisites

No.	Code	Course	Semester F=First S= Second	Credits hours	Prerequisite
1	CHEM111	General chemistry (1)	F	(1+1+0)2	
2	MATH 111	Calculus(1)	F	(1+1+0)2	
3	PHYS 111	General Physics (1)	F	(1+1+0)2	
4	CHEM121	Organic Chemistry (1)	S	(3+1+0)4	
5	CHEM122	Inorganic Chemistry (Main Group Elements)	S	(2+0+0)2	
6	COMP125	Introduction to Computer	S	(2+1+0)3	
7	MATH123	Introduction to Differential Equations	S	(2+1+0)3	MATH 111
8	STAT 101	Biostatistics	S	(1+1+0)2	
9	CHEM211	Organic Chemistry (2)	F	(3+1+0)4	CHEM121
10	CHEM212	Physical Chemistry- Phase Rule	F	(1+1+0)2	
11	CHEM213	General Chemistry (2)	F	(2+1+0)3	CHEM111
12	PHYS 123	General Physics(2)	F	(2+1+0)3	PHYS 111
13	CHEM221	Heterocyclic Compounds Chemistry	S	(2+2+0)4	CHEM211
14	CHEM222	Quantum Chemistry (1)	S	(2+0+0)2	MATH123
15	CHEM223	Physical Organic Chemistry	S	(2+0+0)2	CHEM. 211
16	CHEM224	Descriptive Analytical Chemistry	S	(2+1+0)3	
17	CHEM225	Electro-Reversible Chemistry (1)	S	(2+1+0)3	
18	CHEM311	Quantum Chemistry (2)	F	(2+0+0)2	CHEM222
19	CHEM312	Thermodynamic Chemistry	F	(2+1+0)3	

20	CHEM314	Organic Chemistry (Polymers and patrol)	F	(2+1+0)3	CHEM 211
21	CHEM315	Quantitative Analytical Chemistry	F	(2+1+0)3	CHEM224
22	CHEM316	Physical Chemistry (Surfaces, Colloid s & Catalysis)	F	(2+1+0)3	
23	CHEM321	Biochemistry (1)	S	(2+1+0)3	
24	CHEM322	Inorganic Chemistry(Transition Elements)	S	(4+0+0)4	CHEM 122
25	CHEM323	Electro-Reversible Chemistry (2)	S	(3+1+0)4	CHEM 225
26	CHEM324	Coordination Chemistry	S	(2+1+0)3	CHEM 122
27	CHEM411	Instrumental Analysis Chemistry	F	(3+1+0)4	
28	CHEM412	Kinetic Chemistry	F	(2+1+0)3	CHEM 312
29	CHEM413	Organic Chemistry (Organic Compounds Spectra)	F	(3+1+0)4	
30	CHEM414	Biochemistry (2)	F	(2+1+0)3	CHEM 321
31	CHEM421	Natural Products Chemistry	S	(2+1+0)3	CHEM221
32	CHEM 422	Chemistry of Organic Reactions Mechanisms	S	(2+0+0)2	CHEM211
33	CHEM 423	Research Project	S	(1+3+0)4	
34	CHEM 424	Nuclear and Radiation Chemistry	S	(3+0+0)3	
Total Number of EUC Credits hours				100 Credits hours	

Table 6: Suggested distribution of courses on levels

Level	Course Code	Course Title	Credit Hours	Prerequisite	College or Department
Level 1	EDU 116	General Chemistry (1)	(1+1+0)2		Department
	EDU 117	Teaching Techniques and Communication Skills	(2+0+0)2		College
	EDU 118	Fundamentals of Islamic Education	(2+0+0)2		College
	MATH 111	The System and Policy of Education in KSA	(2+0+0)2		College
	PHYS 111	Calculus(1)	(1+1+0)2		Department
	EDU 116	General Physics (1)	(1+1+0)2		Department
		University Requirement	(2+0+0)2		University
		University Requirement	(2+0+0)2		University
		University Requirement	(2+0+0)2		University
Level 2	CHEM121	Organic Chemistry (1)	(3+1+0)4		Department
	CHEM122	Inorganic Chemistry (Main Group Elements)	(2+0+0)2		Department
	COMP125	Introduction to Computer	(2+1+0)3		Department

Majmaah University -College of Education – Zulfi - Department of Chemistry

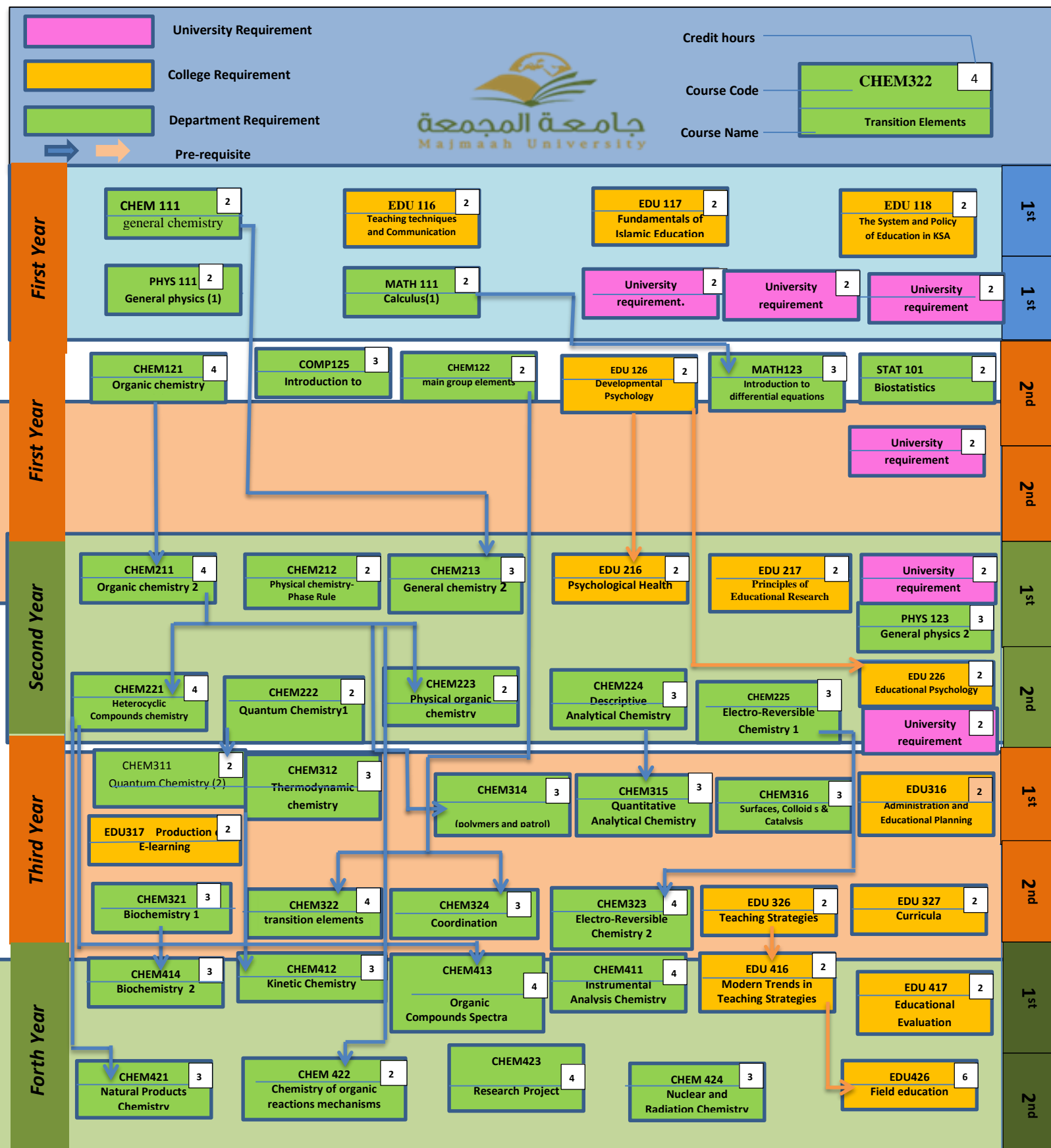
	EDU 126	Developmental Psychology	(2+0+0)2		College
	MATH123	Introduction to Differential Equations	(2+1+0)3	MATH111	College
	STAT 101	Biostatistics	(1+1+0)2		Department
Level 3		University Requirement	(2+0+0)2		University
	CHEM211	Organic Chemistry (2)	(3+1+0)4	CHEM121	Department
	CHEM212	Physical Chemistry-Phase Rule	(1+1+0)2		Department
	CHEM213	General chemistry (2)	(2+1+0)3	CHEM111	Department
	EDU 216	Psychological Health	(2+0+0)2	EDU 126	College
	EDU 217	Principles of Educational Research	(2+0+0)2		College
	PHYS 123	General Physics (2)	(2+1+0) 3	PHYS 111	Department
Level 4		University Requirement	(2+0+0)2		University
	CHEM221	Heterocyclic Compounds Chemistry	(2+2+0)4	CHEM211	Department
	CHEM222	Quantum Chemistry (1)	(2+0+0)2	MATH 123	Department
	CHEM223	Physical Organic Chemistry	(2+0+0)2	CHEM. 211	Department
	CHEM224	Descriptive Analytical Chemistry	(2+1+0)3		Department
	CHEM225	Electro-Reversible Chemistry (1)	(2+1+0)3		Department
	EDU 226	Educational Psychology	(2+0+0)2	EDU126	College
Level 5		University Requirement	(2+0+0)2		University
	CHEM311	Quantum Chemistry (2)	(2+0+0)2	CHEM 22	Department
	CHEM312	Thermodynamic Chemistry	(2+1+0)3		Department
	CHEM314	Organic Chemistry (polymers and patrol)	(2+1+0)3	CHEM211	Department
	CHEM315	Quantitative Analytical Chemistry	(2+1+0)3	CHEM224	Department
	CHEM316	Physical Chemistry (Surfaces, Colloid s & Catalysis)	(2+1+0)3		Department
	EDU316	Administration and Educational Planning	(2+0+0)2		College
Level 6	EDU317	Production of E-learning	(2+0+0)2		College
	CHEM321	Biochemistry (1)	(2+1+0)3		Department

Study plan of Chemistry program

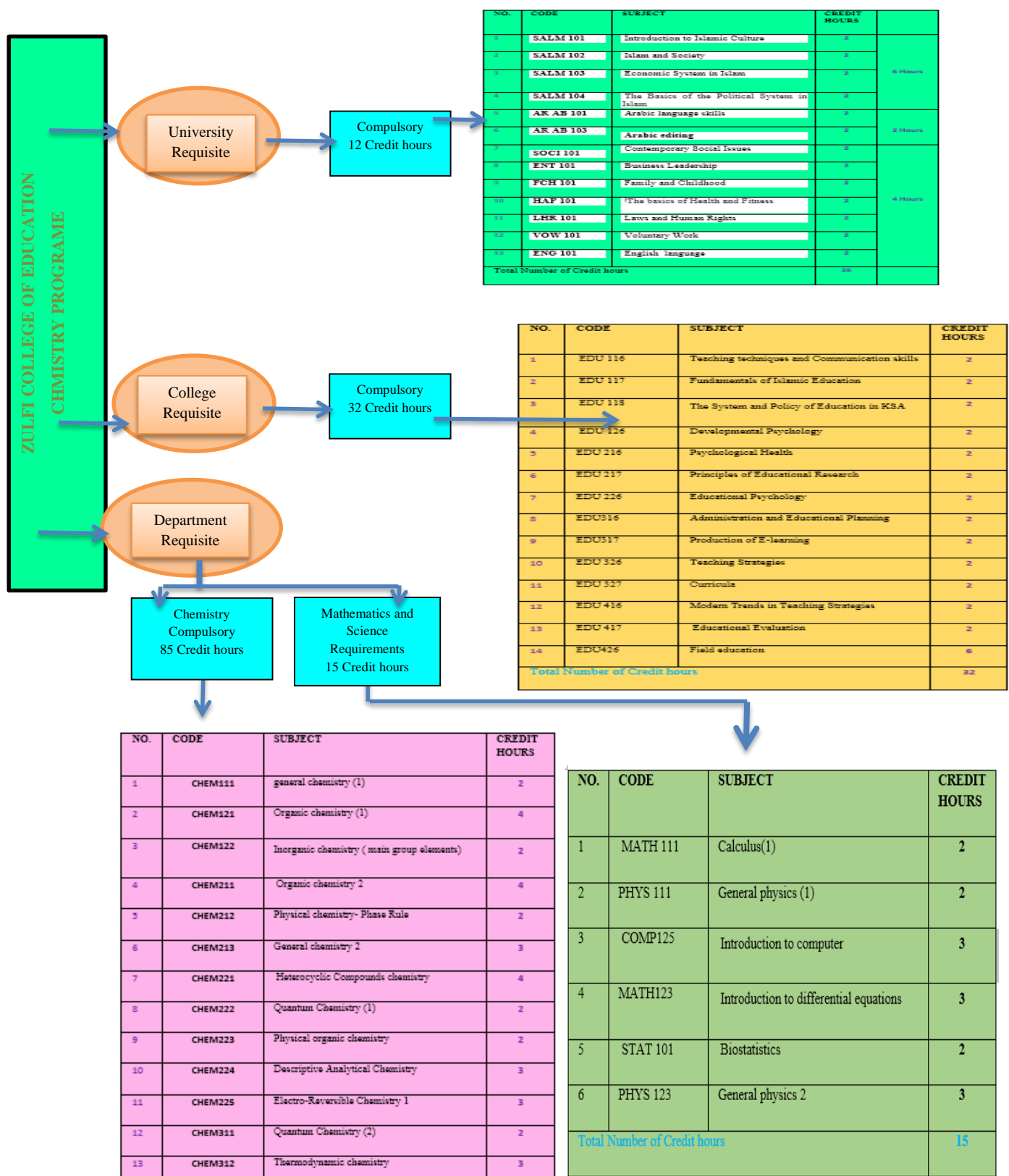
Majmaah University -College of Education – Zulfi - Department of Chemistry

	CHEM322	Inorganic Chemistry(Transition Elements)	(4+0+0)4	CHEM122	Department
	CHEM323	Electro-Reversible Chemistry(2)	(3+1+0)4	CHEM 225	Department
	CHEM324	Coordination Chemistry	(2+1+0)3	CHEM 122	Department
	EDU 326	Teaching Strategies	(2+0+0)2		Department
	EDU 327	Curricula	(2+0+0)2		Department
Level 7	CHEM411	Instrumental Analysis Chemistry	(3+1+0)4		Department
	CHEM412	Kinetic Chemistry	(2+1+0)3	CHEM 312	Department
	CHEM413	Organic Chemistry (Organic Compounds Spectra)	(3+1+0)4		Department
	CHEM414	Biochemistry (2)	(2+1+0)3	CHEM 321	Department
	EDU 416	Modern Trends in Teaching Strategies	(2+0+0)2	EDU 326	College
	EDU 417	Educational Evaluation	(2+0+0)2		College
Level 8	CHEM421	Natural Products Chemistry	(2+1+0)3	CHEM221	Department
	CHEM 422	Chemistry of Organic Reactions Mechanisms	(2+0+0)2	CHEM211	Department
	CHEM423	Research Project	(1+3+0)4		Department
	CHEM 424	Nuclear and Radiation Chemistry	(3+0+0)3		Department
	EDU426	Practicum	(0+0+6)6	EDU326 ‘ EDU 416	College

Study Plan of Chemistry Program



Majmaah University -College of Education – Zulfi - Department of Chemistry



Study plan of Chemistry program

Majmaah University -College of Education – Zulfi - Department of Chemistry

14	CHEM314	organic chemistry (polymers and petrol)	3
15	CHEM315	Quantitative Analytical Chemistry	3
16	CHEM316	Physical Chemistry (Surfaces, Colloid & Catalysis)	3
17	CHEM321	Biochemistry I	3
18	CHEM322	inorganic chemistry(transition elements)	4
19	CHEM323	Electro-Variable Chemistry I	4
20	CHEM324	Coordination Chemistry	3
21	CHEM411	Instrumental Analysis Chemistry	4
22	CHEM412	Kinetic Chemistry	3
23	CHEM413	organic chemistry (Organic Compounds Spectra)	4
24	CHEM414	Biochemistry I	3
25	CHEM421	Natural Products Chemistry	3
26	CHEM 422	Chemistry of organic reactions mechanisms	2
27	CHEM423	Research Project	4
28	CHEM 424	Nuclear and Radiation Chemistry	3
Total Number of Credit hours			85