



**Dept. of Chemistry
College of Science
University of Mosul**

**Republic of IRAQ
Ministry of Higher
Education and
Scientific Research**



Academic programs Definition

This academic program definition provides a necessary summary of the most important characteristics of the program and the learning outcomes that the student achieves by demonstrating whether he has made the most of the available opportunities and is accompanied by a description of everything prohibited within the program:

1- Educational institution	University of Mosul / College of Science
2- University department/center	Chemistry
3- Name of the academic program	ABET
4- Name of the final certificate	B.Sc. in Chemistry
5- The academic system	Courses
6- Accredited accreditation program	ABET
7- Other external influences	
8- Date the description was prepared	20/7/2021
9- Objectives of the academic program	Reaching the national classification

10-Required educational outcomes and teaching, learning and evaluation methods:

Success in academic subjects for the four years + graduation research + summer training

A- Knowledge and understanding

1- Enabling the student to understand the subject of chemistry

2- The student should understand the nature of matter and its chemical composition

3- That the student understands the mechanisms of chemical reactions

B- Subject-specific skills

1- Enables the student to teach chemistry

2- Enables the student to work in laboratories and health institutions

3- Enables the student to work in research institutions

4- Enables the student to work in the chemical and petroleum industries

C- Thinking skills

1- Discussions

2- Duties

3- Laboratory reports

4- Scientific reports

11- Program structure

a. Preliminary study

Stage	n	Subject	Academic system	Theor. hours	Pract. hours	Code
1st Class	1	Inorganic	1 st +2 nd Course	3	3	SCCH1-F1011
	2	Analytical	1 st +2 nd Course	3	3	SCCH1-F1021
	3	Mathematics	1 st +2 nd Course	3	-	SCCH1-F1031
	4	Physics	1 st Course	2	2	SCCH1-F1051
	5	Programming	1 st +2 nd Course	-	2	SCCH1-F1041
	6	Geology	1 st Course	2	2	SCCH1-F1061
	7	Physical characteristics	2 nd Course	3	-	SCCH1-F1081
	8	Organic	2 nd Course	3	-	SCCH1-F1091
	9	Culture	1 st +2 nd Course	1	-	SCCH1-F1101

2nd Class	1	Inorganic	1 st +2 nd Course	2	3	SCCH1-F2011
	2	Analytical	1 st +2 nd Course	2	3	SCCH1-F2031
	3	Physical	1 st +2 nd Course	3	3	SCCH1-F2041
	4	Organic	1 st +2 nd Course	3	3	SCCH1-F2021
	5	Mathematics	1 st +2 nd Course	3	-	SCCH1-F2061
	6	Programming	1 st +2 nd Course	-	2	SCCH1-F2071
	7	Ecology	1 st Course	2	-	SCCH1-F2051
	8	Culture	1 st +2 nd Course	1	-	SCCH1-F2081
3rd Class	1	Inorganic	1 st +2 nd Course	2	3	SCCH1-F2081
	2	Physical	1 st +2 nd Course	3	3	SCCH1-F3011
	3	Biochemistry	1 st +2 nd Course	2	3	SCCH1-F3021
	4	Organic	1 st +2 nd Course	3	3	SCCH1-F3031
	5	industrial	1 st +2 nd Course	2	-	SCCH1-F3041
	6	Mechanism Colloids Phys. Organic Organometallic	Elective 1st Course	2	-	SCCH1-F3061 SCCH1-F3071 SCCH1-F3081 SCCH1-F3091
4th Class	1	Physical	1 st +2 nd Course	3	-	SCCH1-F4011
	2	Instrumentation & Separation	1 st +2 nd Course	3	3	SCCH1-F4051
	3	Petroleum	1 st +2 nd Course	2	3	SCCH1-F4041
	4	Polymers	1 st +2 nd Course	2	3	SCCH1-F4031
	5	Identification	1 st +2 nd Course	1	3	SCCH1-F4071
	6	Biochemistry	1 st +2 nd Course	2	3	SCCH1-F4021
	7	Project	1 st +2 nd Course	1	1	SCCH1-F4061
	8	Bioinorganic Biophysical Fused ring Radiochemistry Clinical Chem.	Elective 2nd Course	2	-	SCCH1-F4081 SCCH1-F4091 SCCH1-F4101 SCCH1-F4111 F4121-SCCH1