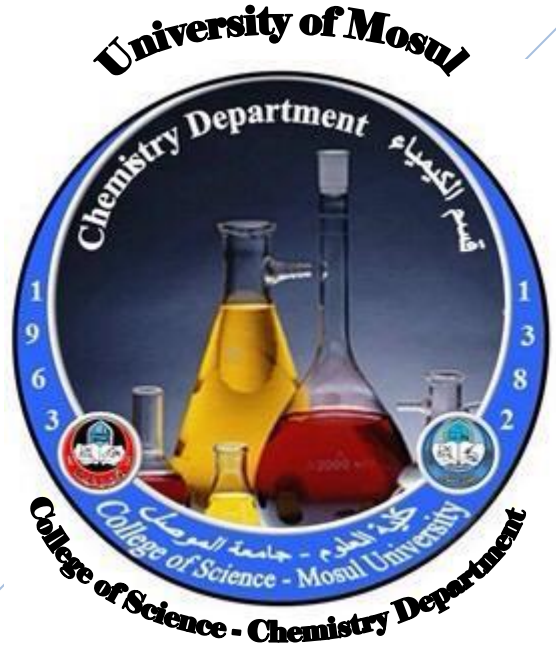
REPUBLIC OF IRAQ

Ministry of Higher Education & Scientific Research



Self-evaluation Report

for

Department of Chemistry

Depending on Criteria

(ABET Accredited Certification Program)

2022-2023

University of Mosul – College of Science – Department of Chemistry

https://n9.cl/r4ei8

CONTENTS

Introduction

Based on the directives of the Honorable Minister of Higher Education and Scientific Research regarding the necessity of developing universities and educational institutions, His Excellency instructed the establishment of a center for ensuring quality and reliability through which the scientific services provided by the Ministry and its educational institutions are matched with international quality standards, taking into account the current and future needs of Iraqi society, with the aim of graduating Qualified cadres capable of meeting these needs.

Based on the commitment of the Department of Chemistry/College of Science/University of Mosul to establish and apply quality practices to support the university's mission towards achieving its strategic goals and reaching global leadership, a self-evaluation report was written.

Self-evaluation according to the "ABET Accreditation Standards" is an examination of the overall functions and activities of the department, taking into account the mission and goals of the department, justifying the analysis extensively with conclusions and evidence, and taking advice from others who are able to provide independent comments. The responsibility for conducting the self-study falls on those in charge of the department, so that everyone is committed to conducting an objective, subjective, and scientific evaluation, and evaluation is an effective means of reviewing the strengths and weaknesses of the department.

The goal of the report is to make changes that contribute to raising the level of performance, supporting strengths, and eliminating weaknesses through work that achieves the standards of the ABET accreditation program, giving a comprehensive overview of the level of activities, services, and educational programs provided by the department, knowing the levels of students, and ways to improve the educational reality, and determining what. They need training courses and development programs and ensuring the quality of the department's outputs and programs to ensure the effectiveness of ongoing quality processes and procedures.

Report Preparation Methodology

The methodology for preparing the self-evaluation report for the Department of Chemistry - College of Science was based on ABET program accreditation standards and on the participatory work of department officials and in direct coordination with the Quality Assurance Department in the college. Electronic workshops were initiated to clarify how to work with the standards, discuss ways and mechanisms of work, and begin writing the department's self-report. The College of Science to be the basic building block from which the final self-evaluation report will emerge.

Mechanism for involving academic and administrative units and students in implementing the study. After the department outlined the comprehensive model for preparing the self-evaluation study, it determined the organizational structure of the committee supervising the self-evaluation study, and the work teams in accordance with the quality management system applied in it, so that the department defined the organizational structure as follows:

1- Supervisor of the self-evaluation study.

2- Form a committee of department teachers to collect evidence supporting each standard and number them according to the standard, and determine an action plan for the work groups.

3- Preparing and writing the report

Tools for collecting information to prepare the report

The following tools were used to prepare the report

1- Vision, mission and goals.

2- ABET Standards Guide.

3- The Ministry of Higher Education's book of laws, regulations and instructions.

4- Annual and executive plans, decisions, records, procedures, and forms.

5- Questionnaires, personal interviews, meeting minutes, periodic reports, quarterly reports, and annual reports.

Members of the Team Writing and Preparing the Self-Evaluation Report

Dr. Salem Jassim Mohammed

Dr. Rabah Ali Khalil

Dr. Alaa Hussein Jalil

Dr. Firas Ahmed Thanon

Dr. Ala Aldin Darghouth

Dr. Ammar Abdel Sattar Ibrahim

Dr. Iman Ismail

Dr. Rana Hassan Ahmed

Dr. Imad Younus Hasan

Dr. Ibrahim Muhammad Hayes

Chapter One

Department Metadata

• **Name and address of the institution:** Ministry of Higher Education and Scientific Research - University of Mosul - College of Science - Department of Chemistry.

• **Department contact information:**

• **Department Head:** ***Prof. Dr. Salem Jassim Mohammed***

Iraq - Mosul - University of Mosul - College of Science - Department of Chemistry

Phone number: **07740871740**

Email: salimjmohamed@uomosul.edu.iq

• **Department Rapporteur:** ***Dr. Imad Younus Hasan***

Iraq - Mosul - University of Mosul - College of Science - Department of Chemistry

Phone number: **07738234172**

Email: imad.younus@uomosul.edu.iq

• **Year of establishment:** 1963

• **Language of study:** English.

• **Initial study period:** four years.

• **Duration of postgraduate study (Master's):** two years.

• **Duration of postgraduate study (PhD):** three years**.**

Department overview:

The Department of Chemistry - College of Science is one of the important departments and has a high scientific standing and national value over a period of 60 years, since its founding in 1963. The Department of Chemistry is one of the scientific departments of the College of Science at the University of Mosul. The duration of study is four years. The department grants a bachelor's degree in chemical sciences after the student has been prepared scientifically and methodologically, qualifying him to keep pace with technical progress in the field of scientific research and providing services to the public and private sectors. Study in the department is in English.

The College of Science was established in Mosul in the summer of 1963 and was affiliated with the University of Baghdad, like the College of Medicine, which was founded in 1959. Studies began in the College of Science in 1963. There were two departments: the Department of Chemistry and the Department of Mathematics.

• The number of graduated courses has reached 56 courses since its founding until now, as the number of graduates of the Chemistry Department since its founding and up to now has reached 9759 graduates, both male and female. The Chemistry Department hosts in its laboratories for practical and theoretical study 5 departments: (BIOLOGY, New and renewable Energies sciences, geology, physics and medical physics) as well as other colleges such as medicine, pharmacy, environmental sciences and technologies, and petroleum engineering.

• It began studying for a master's degree in 1968, and the number of graduates from that date until now who hold a master's degree has reached 920. I began studying for a doctorate in the Department of Chemistry in 1978, and the number of graduates has been 220 so far.

Heads of the Chemistry Department since its establishment

No.	Head of the department	Period
1.	Dr. Abdul Qader Fatin	1964 - 1971
2.	Dr. Abdul Hussein	1971 - 1975
3.	Dr. Latif Hameed Ali	1975 - 1977
4.	Dr. Saadallah Tawfiq	1977 - 1978
5.	Dr. Ihsan Abdul Ghani	1978 – 1979
6.	Dr. Fathi Ahmed Obaid	1979 - 1985
7.	Dr. Latif Hameed Ali	1985 - 1986
8.	Dr. Saad Al-Mukhtar	1986 - 1987
9.	Dr. Talal Al-Allaf	1987 - 1990
10.	Dr. Fathi Ahmed Obaid	1990 - 1995
11.	Dr. Saad Al-Mukhtar	1995 - 2003
12.	Dr. Adnan Othman Omar	2003 - 2007
13.	Dr. Essam Al-Nouri	2007 - 2011
14.	Dr. Amer Thanoun Al-Tai	2011 - 2013
15.	Dr. Nabil Sobeih Othman	2013 - 2015
16.	Dr. Zeina Abdel Moneim	2015 - 2020
17.	Dr. Asaad Faisal Khattab	2020 - 2022
18.	Dr. Salem Jassim Mohamed	2022 -

The most important achievements and activities of the Chemistry Department since its founding:

i. International conferences (4), local (4).

ii. Seminars (40).

iii. Numbers of research since the establishment of the department (1478).

iv. Number of books written and translated (35).

v. Number of exhibitions (60).

vi. Number of continuing education courses and workshops for the self-evaluation year (2022-2023) (24).

vii. Department Library: It includes 57,000 books and 253 periodicals.

viii. Free education number of books (7800).

ix. Patent No. (29).

VISION, MISSION & GOALS

View

Distinctive education for students in primary and postgraduate studies in accordance with developments and the latest modern scientific developments that qualifies them to be creative in their professional lives.

Department message

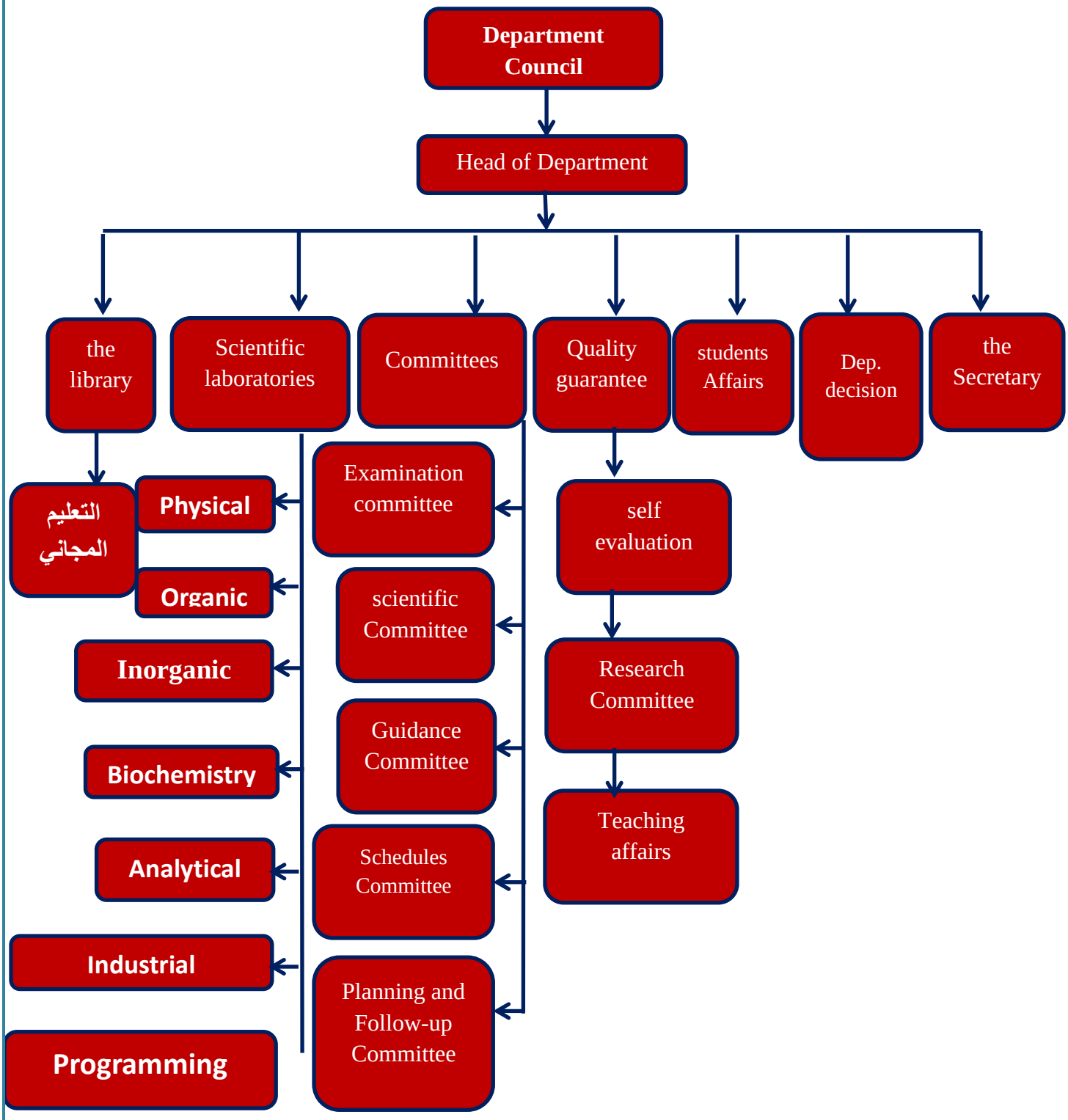
Spreading science and knowledge among students and graduating a generation of chemists with a high degree of scientific competence and instilled in them with love for their country and society in order to serve and build Iraq.

Department objectives

1. Preparing specialized scientific competencies in the field of chemistry to meet the needs of society in the field of education, industry and scientific research.
2. Contributing to scientific and cognitive progress through academic scientific research.
3. Providing technical services and scientific consultations in the field of chemistry to the governmental, industrial and private sectors.
4. Contributing to spreading scientific culture by holding scientific seminars and conferences.
5. Contributing to the dissemination of science through writing and translation.
6. Continuing to develop the skills of the department's graduates by holding continuing education courses.
7. Contributing to deepening and consolidating the department's role in community service.
8. Striving to create job opportunities for graduates of the department by aligning the curricula with the need of the labor market, in a way that supports the investment process and meets the needs of investors in the country.

9. Forming a basic foundation for the general chemistry curriculum and a smooth and harmonious study plan.
10. Providing an advanced level of education for primary and postgraduate studies, maintaining a solid level of curricula, and constantly updating scientific plans.
11. Prepare the student in a focused manner in the principles of chemistry and the principles of analytical methods required for deduction from physical experiments.
12. Providing the student with the opportunity to deepen his knowledge in the various branches of chemistry so that he can overlook the outskirts of contemporary scientific research.
13. Training the student on the method of scientific research and enabling him to contribute to it under the supervision of capable researchers. From my teaching department.
14. Qualifying the student with in-depth knowledge and a degree of scientific maturity that will enable him to participate effectively in the scientific and technical aspects of development and planning programs.
15. Working to complete applied and basic research in various chemistry specializations.
16. Contributing to advisory services, training, short courses and solving scientific and industrial problems facing development plans in Iraq.
17. Continuous development of faculty members by sending them to training courses in order to maintain high levels of efficiency and performance.
18. Support and encourage scientific cooperation among faculty members in the department and cooperation with other departments in the field of multi-purpose research.
19. Spreading the spirit of competition and encouragement and giving the opportunity to all faculty members in the field of research and teaching.
20. Preparing national cadres equipped with basic chemical knowledge qualified to contribute to the development of the country and society.
21. Making sustainable development among the department's main goals.

Organizational Structure of the Department



Members of Department Council

No.	Name of Members
1	Dr. Salem Jassim Mohammed Saleh
2	Dr. Nabil Sabeih Othman Khadr
3	Dr. Rabah Ali Khalil Mahmoud
4	Dr. Asaad Faisal Khattab Imran
5	Dr. Adnan Othman Omar Maami
6	Dr. Thikra Ali Fathi Allwsh
7	Dr. Khansa Shaker
8	Dr. Azzam Ahmed Muhammad

The Students

1. Student admission policy

The student is accepted into the department centrally by distributing the student by the Ministry to various colleges and institutes, where the student who graduates from preparatory school in the biological and applied branches fills out the admission form through which he is accepted, based on the sequence of his choices and his average. The number of students applying and the minimum averages. Students applying to the college are accepted in general on the basis of the scientific departments, of which the Chemistry Department is one of them. Students are distributed among these departments depending on their desires, which they prove by filling out an internal selection form. As well as their grades in preparatory school, according to the total.

2. Central guidance

The Central Guidance Committee seeks to establish mechanisms to maintain the student's needs during the university stage by providing the necessary and appropriate environment to enable the student to succeed and achieve academic excellence, in addition to enhancing confidence in his abilities, especially in the field of his future work. Secondly, identifying the problems or obstacles that may cause a negative impact on his studies and the urgent mechanisms to work to overcome the problems that the student may encounter in the scientific, personal and psychological aspects. The most important thing you can do in the field of personality development is The student is to enhance cooperation between the student and the professor in the field of scientific knowledge, and for the student to resort to the advisor and the college in the event of a problem or topic that is difficult to solve, and to refer to guidance as an important means of confidence and personality for the student, and there are four professors supervising each A stage in the department.

3. Graduation requirements

Graduation requirements for a student in the initial stage of study include the following:

Our department's program grants a bachelor's degree in chemistry. In order for the student to obtain the certificate awarded by the program must provide the following requirements:

Passing the four levels of study through:

First: Attend hours of attendance for each subject not less than (90% of the hours scheduled for the subject).

Second: Obtaining a passing grade in each subject for the year in question, which is equal to 50%. The grade for each subject is determined based on the evaluation method used.

In addition to continuous monitoring of the student's attendance at theoretical and practical lectures, as the student is considered non-compliant. He completes the subject if his hours of absence exceed 10% of the total hours for that subject.

After completing the above certificate requirements, the student is awarded a bachelor's degree in chemistry.

There is a summer training committee in the department that organizes the process of training students during the summer vacation through forms received from the ministry and sent to the training sites in an official letter. The committee receives the training body's responses, which show the student's evaluation during the training period. The training period is... The summer training period is eight weeks and is allocated to third-year students. The summer training committee follows up the students' training through visits it makes and meetings with department officials to learn closely about the nature of the training and the extent to which the student benefits from the training program.

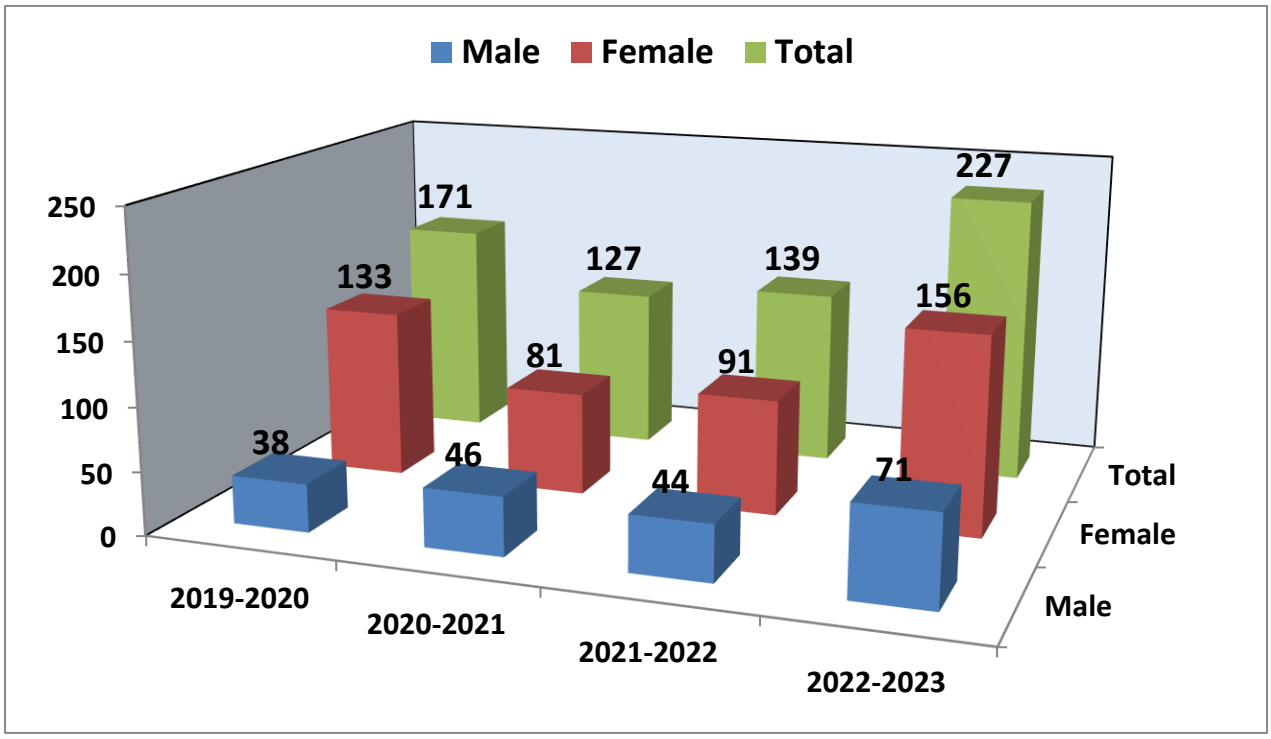
4. Student transfer policies and classroom equivalency.

The department relies on a unified academic program approved by the Committee of Deans of Colleges of Science, which includes a high policy. In moving between college.

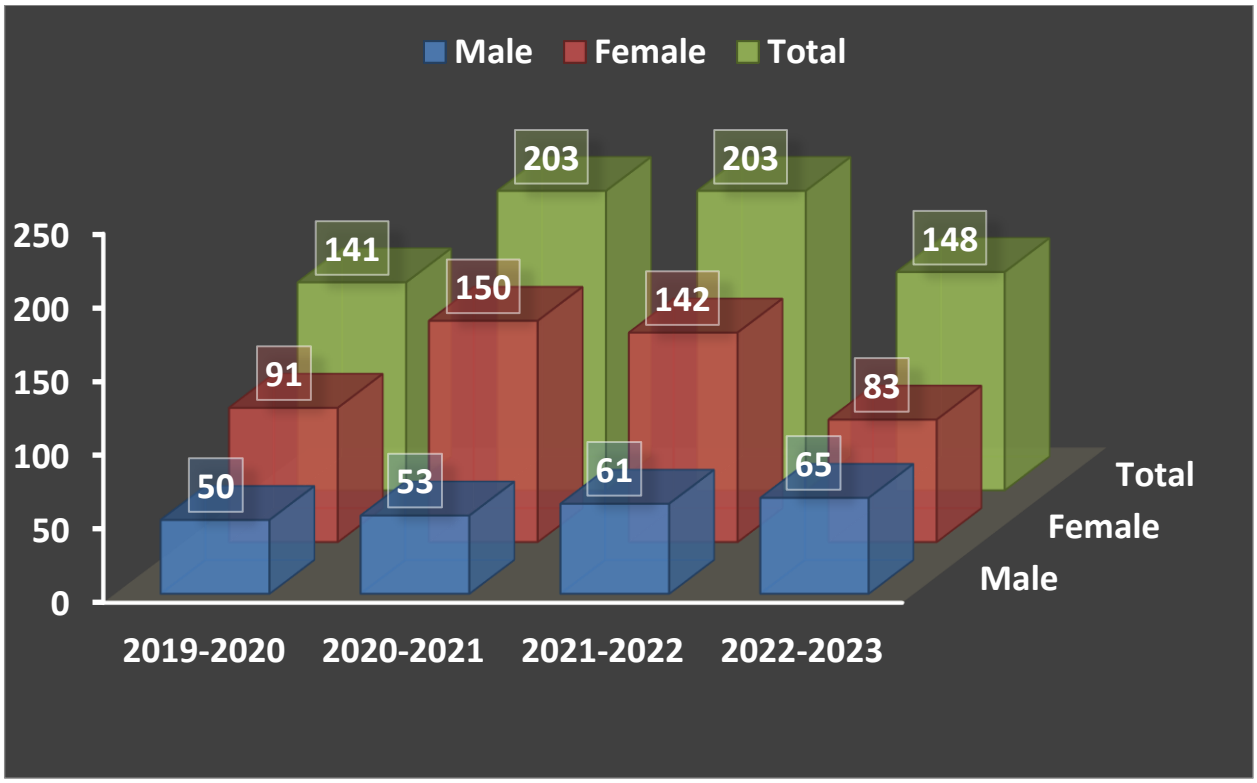
- ***Numbers of students for the last four years - Department of Chemistry***

Classes	First			Second			Third			Fourth		
Years	**Male**	**female**	**all**	**Male**	**female**	**all**	**Male**	**female**	**all**	**Male**	**female**	**all**
2017 - 2018	32	97	129	57	66	123	43	45	98	19	14	33
2018 - 2009	31	80	111	30	94	124	57	57	114	40	41	81
2019 - 2020	38	133	171	50	91	141	38	89	127	46	51	97
2020 - 2021	46	81	127	53	150	203	52	86	138	49	84	133
2021-2022	44	91	135	61	142	203	54	86	140	32	92	124
2022-2023	71	156	227	65	83	148	47	137	185	51	86	137

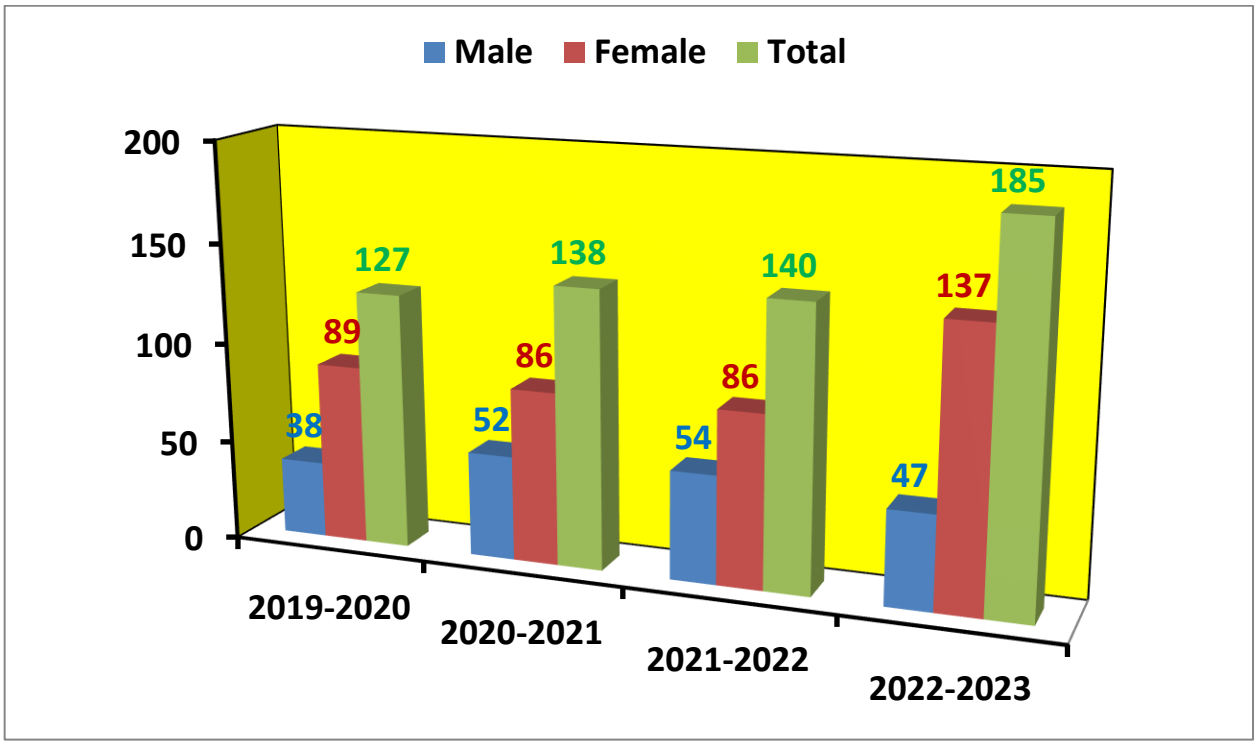
- ***Numbers of students of first class for the last four years - Department of Chemistry.***



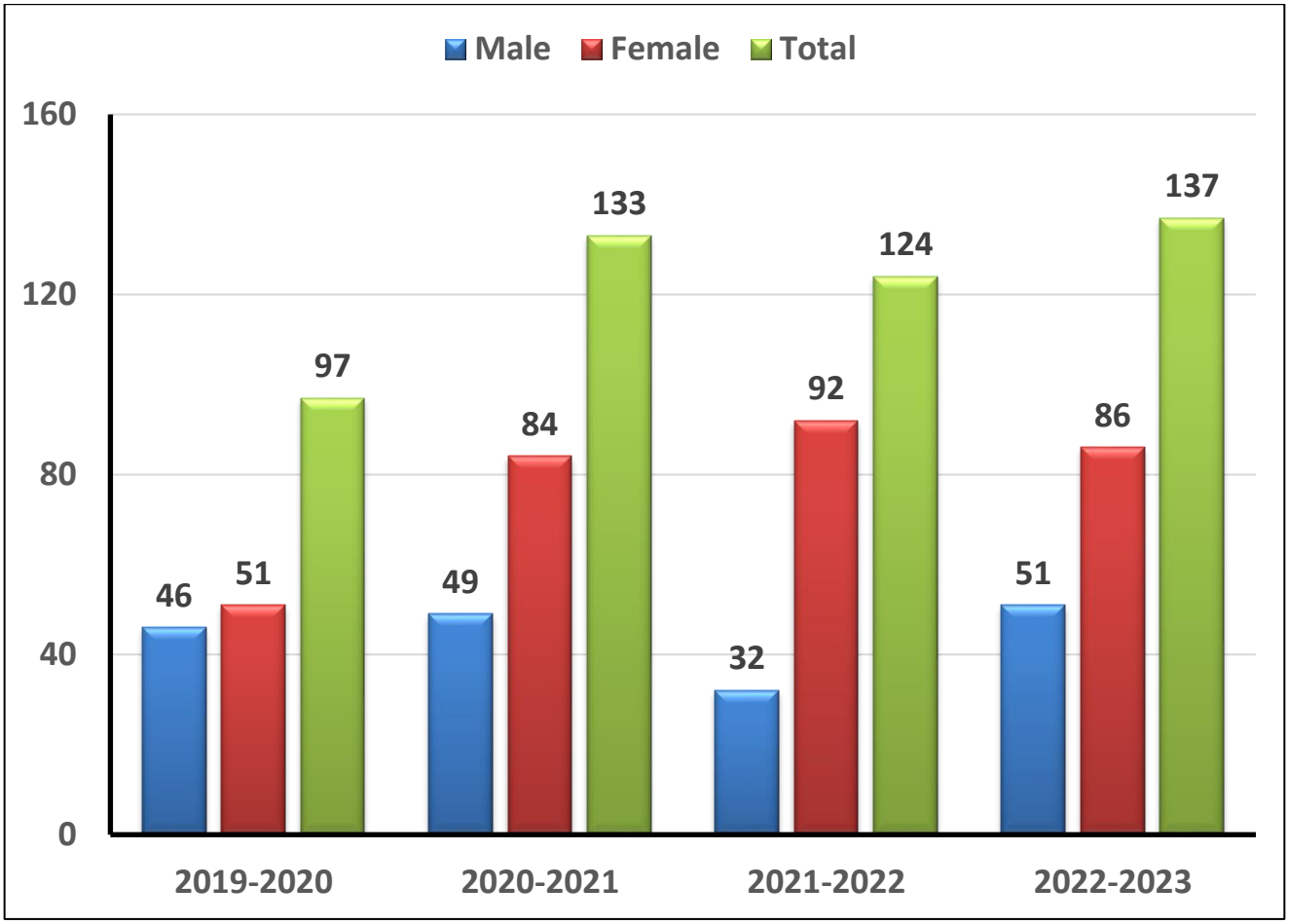
- ***Numbers of students of second class for the last four years - Department of Chemistry.***



- ***Numbers of students of third class for the last four years - Department of Chemistry.***



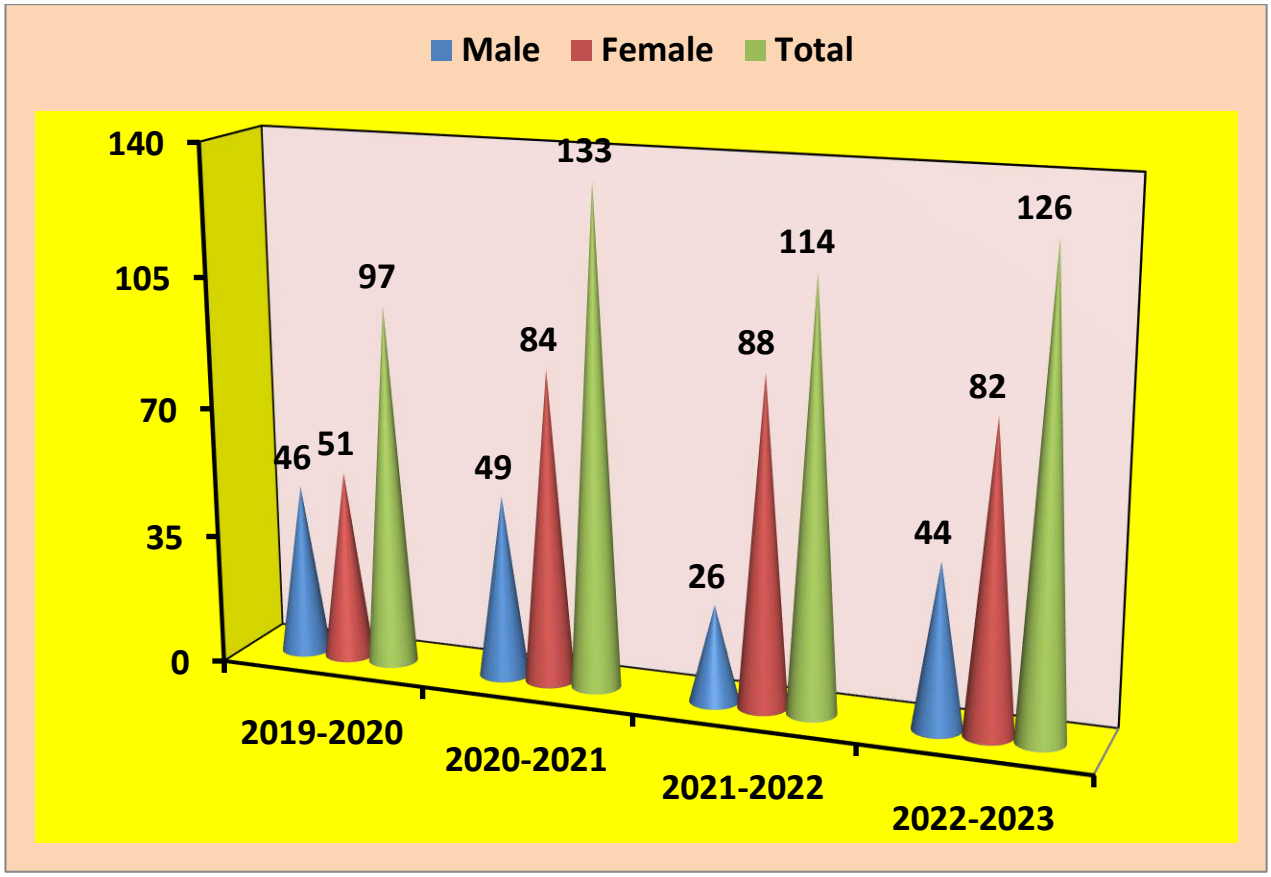
- ***Numbers of students of fourth class for the last four years - Department of Chemistry.***



- ***Numbers of graduate students for the last four years - Department of Chemistry.***

Year	Graduate students		
	Male	Female	Total
2019 – 2020	46	51	97
2020 – 2021	49	84	133
2021 – 2022	26	88	114
2022 - 2023	44	82	126

- ***Numbers of graduate students for the last four years - Department of Chemistry.***



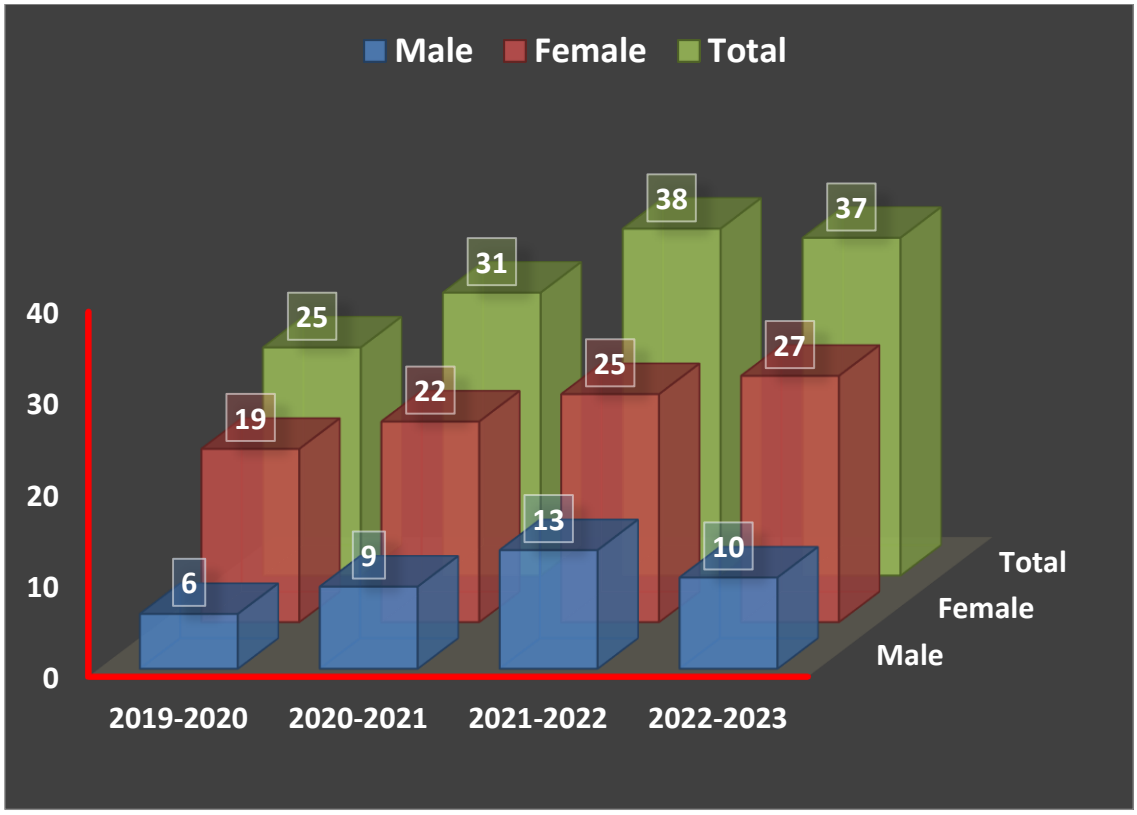
- ***Number of Chemistry Department students who were expelled, withdrawn, and postponed for the last four years.***

Classes	First			Second			Third			Fourth		
Years	Expelled	withdrawn	postponed	Expelled	withdrawn	postponed	Expelled	withdrawn	postponed	Expelled	withdrawn	postponed
2020-2019	—	—	2	—	3	1	—	2	1	—	—	—
2021-2020	—	5	—	—	1	—	—	—	1	—	—	—
2022-2021	—	2	3	—	8	1	—	—	1	—	—	1
2023-2022	—	8	1	—	4	2	—	—	—	—	—	—

- ***Estimates of graduates for the last four years - Department of Chemistry.***

Grade		Excellent			Very good			Good			Average			Accepted			
Years		Male	female	Total	Male	female	Total	Male	female	Total	Male	female	Total	Male	female	Total	Final Total
2019–2020	No.	0	0	0	4	0	4	2	4	6	6	5	11	1	2	3	97
	%	—	—	—	6,16	—	6,16	3,8	6,16	9,96	25	8,20	33,45	1,4	3,8	5,2	54,77
2020–2021	No.	0	0	0	1	1	2	2	2	4	9	5	14	0	1	1	133
	%	—	—	—	3,9	6,4	10,3	1,19	3,9	5,09	6,66	8,23	14,89	—	6,4	6,4	36,68
2021–2022	No.	0	5	5	2	17	19	6	26	32	7	25	32	11	15	26	114
	%	0	4.3	4.3	1.7	14.9	16.6	5.2	22.8	28	6.1	21.9	28	9.6	13	22,6	95,2
2022-2023	No.	1	2	3	5	6	11	6	32	38	17	28	45	15	14	29	126
	%	0.7	1.5	2.2	3.9	4.7	8.6	4.7	25.3	30	13.4	22	35.4	11.9	11.1	23	99,2

- ***Numbers of graduate students for the last four years - Department of Chemistry.***



Academic Program

Description of the academic program

This academic program description provides a necessary summary of the most important characteristics of the program and the learning outcomes expected of the student to achieve, demonstrating whether he has made the most of the available opportunities, and is accompanied by a description of each course within the program.

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.

Program Structure for Undergraduate

Educational level	T	Subject Name	University academic system	Number of hours	Coding
First Year	1	Inorganic chemistry	1st & 2nd semester	3	F1011-SCCH1
	2	analytical chemistry	1st & 2nd semester	3	F1021-SCCH1
	3	mathematics	1st & 2nd semester	3	F1031-SCCH1
	4	Physics	1st semester	2	F1051-SCCH1
	5	programming	1st & 2nd semester	-	F1041-SCCH1
	6	Earth science	1st semester	2	F1061-SCCH1
	7	Physical characteristics	2nd semester	3	F1081-SCCH1
	8	organic chemistry	2nd semester	3	F1091-SCCH1
	9	University culture	1st & 2nd semester	1	F1101-SCCH1
Second Year	1	Inorganic chemistry	1st & 2nd semester	2	F2011-SCCH1
	2	analytical chemistry	1st & 2nd semester	2	F2031-SCCH1
	3	Physical chemistry	1st & 2nd semester	3	F2041-SCCH1
	4	organic chemistry	1st & 2nd semester	3	F2021-SCCH1
	5	mathematics	1st & 2nd semester	3	F2061-SCCH1
	6	programming	1st & 2nd semester	-	F2071-SCCH1
	7	environmental pollution	1st semester	2	F2051-SCCH1
	8	University culture	1st & 2nd semester	1	F2081-SCCH1

Educational level	T	Subject Name	University academic system	Number of hours	Coding
Third Year	1	Inorganic chemistry	1st & 2nd semester	2	F3011-SCCH1
	2	Physical chemistry	1st & 2nd semester	3	F3021-SCCH1
	3	Biochemistry	1st & 2nd semester	2	F3031-SCCH1
	4	organic chemistry	1st & 2nd semester	3	F3041-SCCH1
	5	Industrial chemistry	1st & 2nd semester	2	F3051-SCCH1
	6	Elective (mechanical interactions) (surfaces and colloids) (physical membership) (organometallic)	1st semester	2	F3061-SCCH1 F3071-SCCH1 F3081-SCCH1 F3091-SCCH1
Fourth Year	1	Physical chemistry	1st & 2nd semester	3	F4011-SCCH1
	2	Automated analysis and separation methods	1st & 2nd semester	3	F4051-SCCH1
	3	oil	1st & 2nd semester	2	F4041-SCCH1
	4	Polymers	1st & 2nd semester	2	F4031-SCCH1
	5	Diagnosis	1st & 2nd semester	1	F4071-SCCH1
	6	Biochemistry	1st & 2nd semester	2	F4021-SCCH1
	7	research project	1st & 2nd semester	1	F4061-SCCH1
	8	Elective (Bioinorganic chemistry) (biophysical chemistry) (heterocyclic chemistry) (radial)	1st semester	2	F4081-SCCH1 F4091-SCCH1 F4101-SCCH1 F4111-SCCH1 F4121-SCCH1

Program Structure for Postgraduate

Educational level	No.	Subject Name	University academic system	Number of hours	Codes
Master	1	Industrial chemistry	1st semester	2	F6061-SCCH10
	2	Organic spectrum	2nd Semester	2	F6091-SCCH10
	3	English language	1st & 2nd semester	1	F6071-SCCH10
	4	Human nutrition	2nd Semester	2	F6401-SCCH10
	5	Bioinorganic chemistry	2nd Semester	2	F6041-SCCH10
	6	Enzymes and hormones	2nd Semester	2	F6311-SCCH10
	7	Clinical biochemistry	2nd Semester	2	F6301-SCCH10
	8	Molecular biology	2nd Semester	2	F6331-SCCH10
	9	Physical organic chemistry	2nd Semester	2	F6101-SCCH10
	10	Colloids	1st semester	2	F6151-SCCH10
	11	analytical chemistry	1st semester	2	F6021-SCCH10
	12	X-ray	1st semester	2	F6171-SCCH10
	13	Group Theory	2nd Semester	2	F6161-SCCH10
	14	Organic construction	2nd Semester	2	F6111-SCCH10
	15	Advanced life	1st semester	2	F6191-SCCH10
	16	Life technologies	2nd Semester	2	F6031-SCCH10
	17	Molecular interactions	2nd Semester	2	F6211-SCCH10
	18	Thermodynamic	1st semester	2	F6341-SCCH10
	19	Stereochemistry	2nd Semester	2	F6081-SCCH10
	20	Heterocyclic	2nd Semester	2	F6121-SCCH10
	21	Physical processes	1st semester	2	F6011-SCCH10
	22	Organic analysis	2nd Semester	2	F6241-SCCH10
	23	Biopolymer	2nd Semester	2	F6411-SCCH10

Educational level	No.	Subject Name	University academic system	Number of hours	Codes
PhD	1	Polymerization	1st semester	2	F7161-SCCH10
	2	English language	1st & 2nd semester	1	F7061-SCCH10
	3	Human nutrition	2nd Semester	2	F7251-SCCH10
	4	Metabolic diseases	2nd Semester	2	F7411-SCCH10
	5	Heterocyclic	1st semester	2	F7311-SCCH10
	6	Biotechnology	1st semester	2	F7371-SCCH10
	7	Enzymes and hormones	2nd Semester	2	F7241-SCCH10
	8	Oxidants and antioxidants	2nd Semester	2	F7441-SCCH10
	9	Computer Chemistry (Computational(	2nd Semester	2	F7321-SCCH10
	10	Organometallic	2nd Semester	2	F7091-SCCH10
	11	Coordination chemistry	1st semester	2	F7101-SCCH10
	12	Transitional elements	2nd Semester	2	F7341-SCCH10
	13	Inorganic)M. Selected(	1st semester	2	F7581-SCCH10
	14	Reaction kinetics	1st semester	2	F7121-SCCH10
	15	Physical processes	1st semester	2	F7151-SCCH10
	16	Physical spectrum	1st semester	2	F7381-SCCH10
	17	Colloids and surfaces	2nd Semester	2	F7391-SCCH10

Planning for personal development:

A- Extra-class activity:

- Participation in multiple dialogues via direct sessions provided by advanced universities.
- Participation in national and external scientific conferences and transfer of skills through joint seminars.

B- Extracurricular activities, scientific trips, and scientific tours

- Admission standard (establishing regulations related to enrollment in the college or institute)

  Central admission

- The most important sources of information about the program

  Student guide for central admission counted by the Ministry of Higher Education and Scientific Research for more information.

- Job description and courses: https://bityl.co/P7V3
- Department lectures on the website: https://rb.gy/8j3a7O
- College Guide: https://bityl.co/P7TV
- CV of teachers: https://cv.uomosul.edu.iq/list/science/chemistry
- Members of the College Council: https://shorturl.at/eBT27
- Links to faculty research on the college website:

  https://cv.uomosul.edu.iq/list/science/chemistry

- Links to graduation projects for department students:

  https://shorturl.at/oHLUO

- Subjects and units: https://shorturl.at/kuzO6
- Continuing education courses:

  https://uomosul.edu.iq/public/files/datafolder_3067/_20211103_100359_230.docx

- Lectures: https://shorturl.at/iGJTV
- Class schedules: https://uomosul.edu.iq/pages/ar/science/42594

Department outputs:

1. Determine the department's measurable cognitive skills that are consistent with the objectives of the academic department's programs through daily, quarterly and final examinations and reports.

2. Determine the priorities of the knowledge and skills that the department is keen to achieve for the graduate

3. The extent to which graduate students achieve the department's academic program

4. The department's mechanisms used in evaluating the department's academic program:

- Graduate opinion polls, as the department cooperates with the head of the rehabilitation and employment unit at the college in order to communicate with the department's graduates and listen to their opinions and ideas in developing the department.

- Opinions of employment agencies: The department communicates and cooperates with government employment agencies, the most important of which are the Directorate of Health and the Directorate of Education, as well as some companies, health centers and clinics in the private sector.

- Graduates' performance in jobs: Graduates perform very well in jobs because they have benefited from valuable information during their years of study.

- Graduate employment data through the College's Qualification and Employment Unit.

Academic Staff

No.	Name	Academic title	General Subject	Fine Subject
1.	Dr. Salem Jassim Mohammed Saleh Al-Juhaishi	Prof.	Chemistry	Organic Chemistry
2.	Dr. Ammar Abdel Sattar Ibrahim Yahya Al Dabbagh	Prof.	Chemistry	Physical Chemistry
3.	Dr. Imad Younis Hassan Al-Nasser	Lecturer	Chemistry	Analytical Chemistry
4.	Dr. Nabil Sobeih Othman Khader Tahafi	Prof.	Chemistry	Analytical Chemistry
5.	Dr. Rabah Ali Khalil Mahmoud Al-Hamdani	Prof.	Chemistry	Physical Chemistry
6.	Dr. Asaad Faisal Khattab Omran Al Omran	Prof.	Chemistry	Industrial Chemistry
7.	Dr. Salem Ali Muhammad Saleh Qassab	Prof.	Chemistry	Analytical Chemistry
8.	Dr. Adnan Othman Omar Maami Hasakah	Prof.	Chemistry	Organic Chemistry
9.	Dr. Thikra of Ali Fathi Alloush Aloush	Prof.	Chemistry	Biochemistry
10.	Dr. Louay Abdel Ali Ismail Al-Hilali	Prof.	Chemistry	Biochemistry
11.	Dr. Widad Taha Hamed Muhammad Al-Qattan	Prof.	Chemistry	Inorganic Chemistry
12.	Dr. Fawzi Habib Gabriel Ibrahim Ibrahim	Prof.	Chemistry	Industrial Chemistry
13.	Dr. Abdul Rahman Basil Fadel Amin Al-Obaidi	Prof.	Chemistry	Industrial Chemistry
14.	Dr. Zeina Abdel Moneim Muhammad Al-Jawadi	Prof.	Chemistry	Biochemistry
15.	Dr. Zahraa Muhammad Ali Ahmed Mustafa Hamouda	Prof.	Chemistry	Biochemistry
16.	Dr. Amer Thanoun Abdul Rahman Ahmed Al-Taie	Prof.	Chemistry	Physical Chemistry
17.	Dr. Ammar Hussein Abdullah Fares Al-Sabaawi	Prof.	Chemistry	Organic Chemistry
18.	Dr. Hana Shukr Mahmoud Ahmed Al-Omari	Prof.	Chemistry	Analytical Chemistry
19.	Dr. Sahba Ali Ahmed Hassan Al-Sabaawi	Prof.	Chemistry	Inorganic Chemistry
20.	Dr. Shaima Khazal Younis Omar Al-Azzawi	Prof.	Chemistry	Organic Chemistry
21.	Dr. Laila Abdullah Mustafa Abdullah Abdul Al	Assist. Prof.	Chemistry	Biochemistry
22.	Dr. Saba Zaki Mahmoud Khader Al-Abaji	Assist. Prof.	Chemistry	Biochemistry
23.	Dr. Muhammad Bahri Hassan Abdel Saadoun	Assist. Prof.	Chemistry	Biochemistry
24.	Dr. Wasan Khairallah Ali Hussein Al-Dulaimi	Assist. Prof.	Chemistry	Biochemistry
25.	Dr. Iman Ismail Ahmed Majdhab Al-Akidi	Assist. Prof.	Chemistry	Industrial Chemistry

26.	Dr. Fatima Abdul Hamid Muhammad Al-Atrushi	Assist. Prof.	Chemistry	Biochemistry
27.	Dr. Sakina Hussein Rashid Ali Al-Rawi	Assist. Prof.	Chemistry	Biochemistry
28.	Dr. Iman Adel Hadi Hamdoun Ramadan	Assist. Prof.	Chemistry	Biochemistry
29.	Dr. Khansa Shaker Nemat Allah Al-Nima	Assist. Prof.	Chemistry	Inorganic Chemistry
30.	Dr. Khaleda Muhammad Omar Daed Al-Tai	Assist. Prof.	Chemistry	Analytical Chemistry
31.	Dr. Amra Fares Muhammad Darwish Al-Sarraj	Assist. Prof.	Chemistry	Inorganic Chemistry
32.	Dr. Munira Youssef Raouf Al-Naqshbandi	Assist. Prof.	Chemistry	Organic Chemistry
33.	Dr. Laila Jumaa, star, Zaher star	Assist. Prof.	Chemistry	Inorganic Chemistry
34.	Dr. Farah Tariq Saeed Muhammad Al-Tikriti	Assist. Prof.	Chemistry	Inorganic Chemistry
35.	Dr. Omar Adel Sharif	Assist. Prof.	Chemistry	Physical Chemistry
36.	Dr. Safaa Abdel Aziz Taha Amin Al-Amin	Assist. Prof.	Chemistry	Biochemistry
37.	Dr. Saeed Abdel Qader Saeed Al-Bighamberly	Assist. Prof.	Chemistry	Organic Chemistry
38.	Dr. Saad Hassani, Sultan of Zarzis Allawi	Assist. Prof.	Chemistry	Analytical Chemistry
39.	Dr. Alaa Muhammad Tayyab Hussein Al Laila	Assist. Prof.	Chemistry	Physical Chemistry
40.	Dr. Fanar Muhammad Ismail Muhammad Al-Hayali	Assist. Prof.	Chemistry	Physical Chemistry
41.	Dr. Shaima Hashem Abdel Rahman Mustafa Al-Hilali	Assist. Prof.	Chemistry	Physical Chemistry
42.	Dr. Haifa Younis Hussein Darwish Al-Jubouri	Assist. Prof.	Chemistry	Organic Chemistry
43.	Dr. Atallah Muhammad Sheet Mahmoud Al-Sharifi	Assist. Prof.	Chemistry	Organic Chemistry
44.	Dr. Harith Muhammad Salman Abdul Ajili	Assist. Prof.	Chemistry	Organic Chemistry
45.	Dr. Amal Taha Yassin Ramla Al Jeraisy	Assist. Prof.	Chemistry	Biochemistry
46.	Dr. Asim Salman Abdullah Fathi Al-Boutani	Lecturer	Chemistry	Inorganic Chemistry
47.	Dr. Amira Muhammad Faraj Saleh Suleiman	Lecturer	Chemistry	Organic Chemistry
48.	Dr. Heba Amin Ibrahim Dhanoun Al-Alaf	Lecturer	Chemistry	Organic Chemistry
49.	Dr. Nada Bashir Sharif Hamid Al Nuaimi	Lecturer	Chemistry	Physical Chemistry
50.	Dr. Aladdin Muhammad Hani Darghouth	Lecturer	Chemistry	Physical Chemistry
51.	Dr. Samir Saadallah Azza Nasser Al-Hayali	Lecturer	Chemistry	Inorganic Chemistry
52.	Dr. Rafd Rabie Saadoun Muhammad Al-Taie	Lecturer	Chemistry	Biochemistry
53.	Dr. Rana Abdul Malik Suleiman Ali Al Qa'ba	Lecturer	Chemistry	Inorganic Chemistry
54.	Dr. Saleh Awaid Aboud Muhammad Al-Obaidi	Lecturer	Chemistry	Organic Chemistry

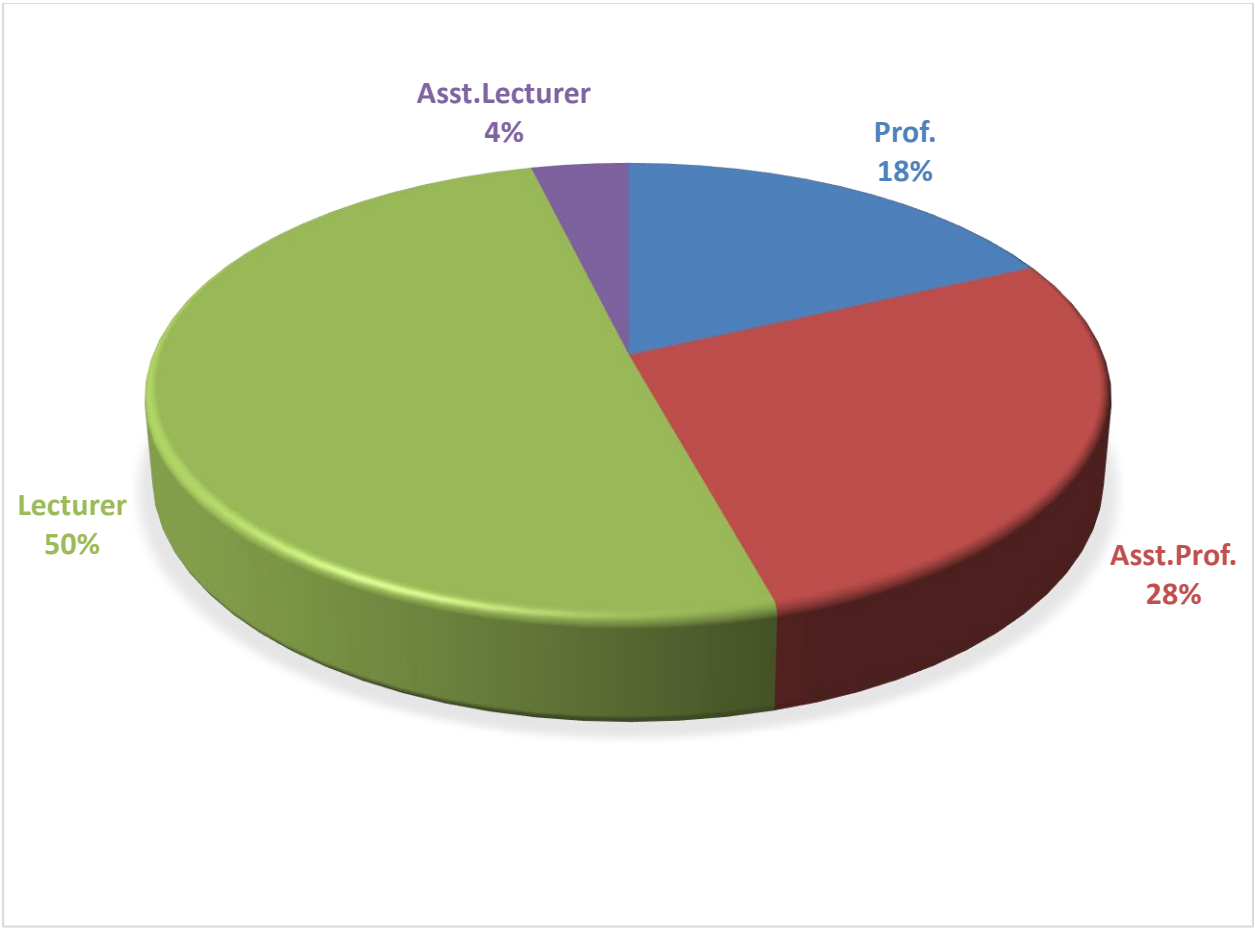
55.	Dr. Rana Hassan Ahmed, all of them	Lecturer	Chemistry	Physical Chemistry
56.	Dr. Firas Ahmed Thanoun Al-Lulji	Lecturer	Chemistry	Physical Chemistry
57.	Dr. Alaa Hussein Jalil Muhammad Al-Taei	Lecturer	Chemistry	Physical Chemistry
58.	Dr. Azzam Ahmed Muhammad Hudayd Al-Hadidi	Lecturer	Chemistry	Organic Chemistry
59.	Dr. Ihab Salem Ahmed replaced Al-Jubouri	Lecturer	Chemistry	Industrial Chemistry
60.	Dr. Shaima Sultan Abo Al-Mutlaq Al-Aqidi	Lecturer	Chemistry	Industrial Chemistry
61.	Dr. Ibrahim Muhammad Hayes Saleh Al-Khafaji	Lecturer	Chemistry	Physical Chemistry
62.	Dr. Maha Thanoun Hussein Abdullah Al-Obaidi	Lecturer	Chemistry	Analytical Chemistry
63.	Dr. Heba Farouk Muhammad Amin Yahya Al-Kateb	Lecturer	Chemistry	Inorganic Chemistry
64.	Dr. Congratulations to Walid Jihad Yacoub Qato	Lecturer	Chemistry	Organic Chemistry
65.	Dr. Heba Amin Ibrahim Dhanoun Al-Alaf	Lecturer	Chemistry	Organic Chemistry
66.	Dr. Ahmed Salem Mahmoud Muhammad Al-Taie	Lecturer	Chemistry	Inorganic Chemistry
67.	Dr. Heba Abdul Salam Muhammad Abdullah	Lecturer	Chemistry	Organic Chemistry
68.	Dr. Amna Farouk Sanallah Abdullah Al-Omari	Lecturer	Chemistry	Industrial Chemistry
69.	Dr. Ibrahim Muhammad Ahmed Al-Halima	Lecturer	Comput. Sci.	Network security
70.	Dr. Omar Ismail Muhammad Al-Dhanoun	Lecturer	Chemistry	Biochemistry
71.	Dr. Hanan Hamid Ahmed Suleiman Al-Ali	Lecturer	Chemistry	Analytical Chemistry
72.	Neaam Muhammad Tayyab Hussein Al Laila	Assist. Prof.	Chemistry	Industrial Chemistry
73.	Wael Abdul Qader Abdullah Abdul Qader Al Qazzaz	Lecturer	Chemistry	Analytical Chemistry
74.	Amal Ghazi Abdel Rahawi Al-Sarraj	Lecturer	Chemistry	Physical Chemistry
75.	Inaam Ahmed Hamdoun Al-Gargis	Assist. Prof.	Chemistry	Analytical Chemistry
76.	Israa Ali Hassan Ali Haj Hussein	Assist. Prof.	Chemistry	Inorganic Chemistry
77.	Kawakeb of Abdul Aziz Muhammad Majeed Al-Tai	Lecturer	Chemistry	Inorganic Chemistry
78.	Dr. Zeina Talal Shaker Mahmoud Bakr	Lecturer	Chemistry	Analytical Chemistry
79.	Sariya Walid Zidan Thanoun Al-Taie	Lecturer	Chemistry	Inorganic Chemistry
80.	Dr. Israa Adnan Saeed Ahmed Al-Shukarji	Lecturer	Chemistry	Inorganic Chemistry
81.	Dr. Asmaa Natiq Abdul Qadir Mahmoud Al Arhaim	Lecturer	Chemistry	Analytical Chemistry
82.	Mawada Muhammad Suleiman Hassan Al-Ghabsha	Lecturer	Comput. Sci.	Artificial intelligence
83.	Dr. Saba Mumtaz Saleh Taha Al-Asali	Lecturer	Chemistry	Inorganic Chemistry

84.	Noha Abdel Qader Sharif Omar Al Talib	Assist. Prof.	Chemistry	Biochemistry
85.	Dr. Afia Muayyed Younis Mustafa Al-Dabbagh	Lecturer	Chemistry	Inorganic Chemistry
86.	Dr. Basemah Ahmed Abdel Hadi Salim Al-Taha	Assist. Prof.	Chemistry	Analytical Chemistry
87.	Mafaz Khaled Saeed Tawfiq Al-Sayegh	Lecturer	Chemistry	Biochemistry
88.	Dr. Lama Taha Daoud Sharif Al-Bakr	Lecturer	Chemistry	Analytical Chemistry
89.	Dr. Naseem Maysar Abdel Hamid Al-Hamdani	Lecturer	Chemistry	Analytical Chemistry
90.	Dr. Safa Abdel Aleem Ahmed Younis Zakaria	Lecturer	Chemistry	Analytical Chemistry
91.	Dr. Anfal Raad Mahmoud Ahmed Al-Barhawi	Lecturer	Chemistry	Physical Chemistry
92.	Sana Abdel-Ilah Ahmed Girgis Abdel-Mawjoud	Lecturer	Chemistry	Biochemistry
93.	Dr. Saba Hazem Siddiq Hassan Al-Sarati	Lecturer	Chemistry	Synthetic Chemistry
94.	Dr. Fayhaa Kamal Hussein Ali Al-Jarrah	Lecturer	Chemistry	Inorganic Chemistry
95.	Dr. Raghad Abdel Mawjoud Muhammad Al-Abadi	Lecturer	Chemistry	Biochemistry
96.	Dr. Lana Abdel Hamid Rashid	Lecturer	Chemistry	Inorganic Chemistry
97.	Dr. Enas Samir Thanoun Mahmoud Mulla Hamo	Lecturer	Chemistry	Analytical Chemistry
98.	Shahla Ahmed Younis Abdel-Jamas	Lecturer	Chemistry	Organic Chemistry
99.	Shaima Younis Ibrahim Dhanoun Al-Taie	Lecturer	Chemistry	Organic Chemistry
100.	Dr. Muhammad Adnan Muhammad Ali Al-Qaba	Lecturer	Chemistry	Organic Chemistry
101.	Khaled Nazir Hamid Abdullah Al-Sarraf	assist Lect.	Chemistry	Inorganic Chemistry
102.	Dr. Muhammad Qahtan Hassan Ali Siala	Lecturer	Chemistry	Physical Chemistry
103.	Amna Adnan Muhammad Shihab Al Fares	assist Lect.	Chemistry	Inorganic Chemistry
104.	Iman Bahjat Bashir Tawfiq Mulla Jarjis	assist Lect.	Chemistry	Analytical Chemistry
105.	Sahba Younis Majeed Abdul Ghani Al-Taie	assist Lect.	Chemistry	Inorganic Chemistry

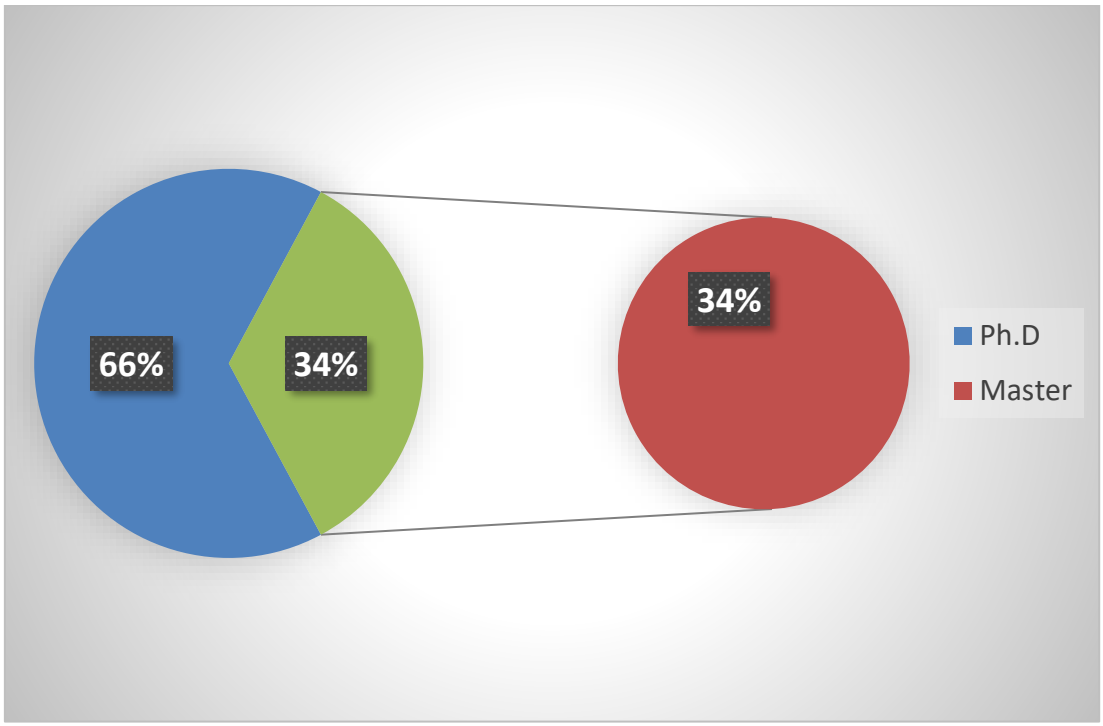
Description of the faculty members in the department:

staff	Coalification		Scientific degree					
	Ph.D	Master	Prof.	Asst.Prof.	Lecturer	Asst. lecturer	Male	female
105	88	17	19	29	53	4	36	69

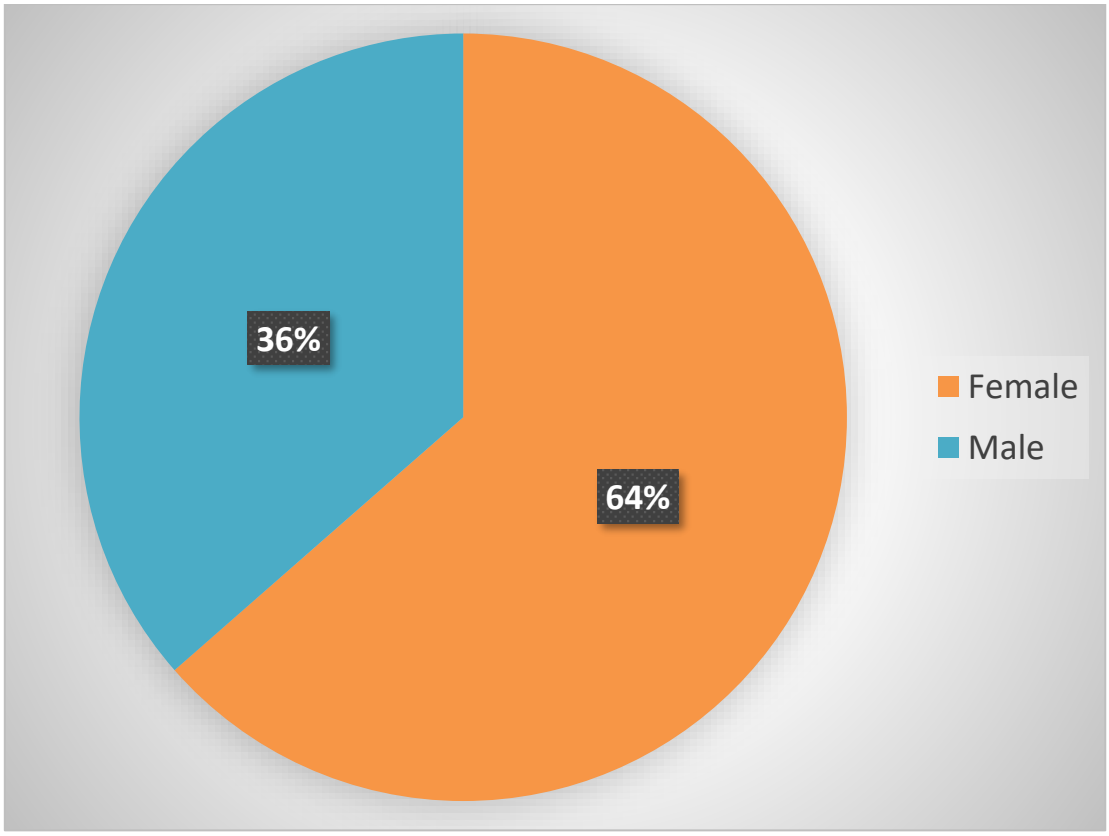
% of Ph.D	84%
% of Master	16%



Faculty members by academic degree



Faculty members by gender



Average hours of additional teaching load for faculty members:

The scientific title	The number of quorum hours specified	Number of load hours
Professor	6-4	16
Assistant Professor	8	13
Lecturer	10	15
Assistant Lecturer	12	17

Employees and administrators according to academic qualification

Academic qualification of employees	Number of permanent employees	Number of contract employees
Bachelor's	13	
Technical Diploma	3	
Preparatory school	0	
Medium	1	
Primary	1	2

- **Ratio of students to teachers:**

  - Number of Chemistry Department students in 2022-2023 (952) for the four stages.
  - Preparation of teaching staff in the Chemistry Department for the year 2022-2023 (105) teaching staff.

Ratio of students to teachers = 0.1

A summary of the most important work at the quality assurance level:

- ***Quality field:***

1- Writing and implementing boards related to the department's vision, mission, and goals.

2- Preparing questionnaires for students to evaluate the teaching.

3- Follow up on the implementation of the department's self-evaluation standards

4- Participation in many seminars, workshops and conferences related to quality within the country.

5- Holding workshops aimed at improving quality in the department.

6- Holding and attending scientific courses on performance evaluation for department members.

7- Prepare a plan on what was done before starting the department's self-evaluation process.

8- Working on coding the new curricula and exam questions on a regular basis.

9- Establishing special mechanisms for laboratory quality.

- ***Field of university performance:***

1- Completing the department's annual calendar file.

2- Conducting evaluations of teachers as well as evaluations of employees.

3- Archiving (automation) of information: electronic documentation of information in the department's Quality Assurance Committee.

4- Completing the national evaluation form for scientific departments.

5- Completing and writing the department's self-evaluation report according to the standards of the accredited ABET accreditation program

6- Writing a report on conformity with the standards of the accredited ABET accreditation program.

Infrastructure

No.	Buildings	no	Area m²	Ratio of students to hall area
1	Teaching halls	10	610	0.86
2	Event halls	2	180	4.0
3	Central laboratory	1	220	
4	Laboratories	31	1317	0.3
5	Technical workshops	0	0	
6	Faculty offices	54	950	
7	Internet units	2	18.5	
8	Clubs, sports stadiums	1	60	
9	Parking lot	4	1800	
10	Gardens and squares	4	1200	
11	the library	1	210	
12	Bathrooms	9	270	

Chapter Two

ABET Accreditation Program Standards

About Accreditation:

Accreditation Board for Engineering and Technology (ABET)

It is an American non-governmental organization that grants accreditation for academic programs in colleges and universities around the world in the fields of applied sciences, computers, engineering, and technology. It is one of the most trusted academic accreditations in the United States of America. ABET has been providing accreditation certificates to confirm the quality of academic programs in university studies for more than 75 years.

What does ABET accreditation mean:

ABET accreditation is confirmation that the academic program obtained applies the quality standards of education agreed upon by those with relevant experience in education to prepare and qualify students. Learning specifications are set in terms of the academic program's mission, learning objectives, learning outcomes, and study plan for engineering programs by experts in engineering education, with confirmation of the existence of mechanisms to ensure that feedback is taken from all its sources and used for continuous improvement of the academic program so that graduates of these programs continue to have the highest specifications, qualifications, and skills they need. The labor market and to ensure that the graduate remains capable of continuous self-learning that enables him to keep pace with developments in his field.

Why ABET accreditation is important:

- ABET accreditation ensures confidence that the academic program has met the basic standards to prepare graduates to enter the fields of science, technology, engineering, and mathematics, which have become a requirement for the global labor market.

- Graduates from an ABET-accredited program have a strong and capable educational foundation that enables them to follow the path of rapid technological innovations and developments.

- Accreditation helps students and their parents choose a reliable specialization, as it guarantees students that their educational experience keeps pace with international standards for learning and technical education in the vocational field.
- Accreditation gives companies and employers the opportunity to select and employ graduates, knowing that these graduates have been taught the specialty within international standards.
- Enhances job opportunities for the graduate as multinational companies require graduation from an accredited program.
- Registrars, licensors and certificates may use the accreditation to select applicants for these licenses and certificates.
- Accreditation helps universities and departments establish an organized mechanism to evaluate and develop the quality of their programs.

Standards of the American Accreditation Authority:

The study aimed to evaluate the current situation of the department, and the extent to which the department achieves the standards to ensure quality, noting that the department, from the beginning, reviewed the experiences of regional and local universities and reached the following fact: The department needs support for a quality management system to ensure continuity of development and improvement of performance, and this in turn requires development and modernization in The management method and its work mechanisms are consistent with international standards for the quality of higher education and achieve compliance with the standards set by the Ministry of Higher Education and Scientific Research/the Scientific Supervision and Evaluation Agency/the Department of Quality Assurance and Academic Accreditation by adopting the program standards.

The results of the self-evaluation study showed the extent to which these standards were met as follows:

Degree of conformity			Students	Standard number
Completely	partially	None		
✓			Objectives of the	**1**
✓			educational program	**2**
	✓		Continuous improvement of the educational institution's environment	**3**
✓			educational subjects	**4**
✓			Teaching staff	**5**
	✓		financial support	**6**
✓			Evaluation and examination system	**7**

Degree of conformity			Student	
Completely	partially	Not related		
✓ ✓ ✓ ✓			1. Student acceptance 2. Providing advice to the student regarding the curriculum and job opportunities**.** 3. There must be a program to evaluate the student's progress for the purpose of achieving the success of the program's outcomes in order to help them fully benefit from the program**.** 4. The program must have the following**:** • Clear policies regarding accepting the student's transfer from other institutes or universities and verifying the subjects (clearing) in his approval to complete the program in terms of units**.** The program must include clear methods to ensure that all**.**	**1**

Degree of conformity			Objectives of the educational program	
Completely	partially	Not related		
✓ ✓ ✓			**1.** The educational objectives of the program (printed) and are in line with the vision of the educational institution **2.** The program must have a continuous evaluation process for programmed time periods that shows that the goals are based on needs. **3.** There must be a continuous evaluation and evaluation process for all components of the program, which shows the desired degree and on the basis of which the goals were set**.**	**2**

Degree of conformity				
Completely	partially	Not related		
	✓ ✓ ✓ ✓		• Classrooms and laboratories must be available with modern equipment that is compatible with the objectives of the program and provides an appropriate educational environment**.** • Providing these requirements is necessary to increase interaction between the teaching staff and students and to create an appropriate and encouraging climate for the growth and development of the profession**.** • The program must provide an opportunity for students to learn and use the latest scientific equipment •Information technology infrastructure must be available to support the educational activities carried out by students and teachers and the educational objectives of the program and educational institution**.**	**3**

Degree of conformity			Academic subjects	
Completely	partially	Not related		
✓ ✓			• We must ensure that the curriculum contains sufficient teaching hours for each subject and each subject, in line with the required outcomes and the objectives of the program and the college**.** • The scientific part of the program must include the basic principles of chemistry, and may include some practical experiments related to the specialization**.**	**4**

Degree of conformity			Academics staff	
Completely	partially	Not related		
✓ ✓ ✓			Must be available 1- A sufficient number of teachers who are capable of covering all components of the program**.** 2- It must have high academic specifications to be able to provide the student with adequate advice and guidance regarding the curriculum components**.** 3- The faculty member must also have the ability to evaluate and evaluate the program on an ongoing basis, on the one hand	**5**

Degree of conformity			financial support	
Completely	partially	Not related		
	✓		The support for the educational institution in terms of financial resources and constructive leadership must be effective to ensure the continuity and value of the program. Resources must be prepared to ensure the continuity and operation of all facilities and laboratory equipment related to the program, in addition to supporting the items related to services.	6

Degree of conformity			Financial Support	
Completely	partially	Not related		
✓			• The evaluation system in the college • Collecting, evaluating and analyzing data • Using data to develop the program	7

SWOT analysis

The **first standard** *and the* **second standard***: students and the objectives of the educational program.*

Strengths:

• There are multiple mechanisms to support students, whether at the level of guidance and rehabilitation or at the level of academic performance as well

About the existence of a system to support students financially.

• There are guidance and educational committees in the department that take it upon themselves to follow up on students, provide them with educational advice, and help them overcome the problems and difficulties they face.

• The department's sponsorship of artistic and sports activities

• Forming the department's introduction committee, which undertakes the task of introducing the department at the beginning of the academic year, especially to new students. It explains the goals and mission of the department, descriptions of the graduate's work from the department, the department's curricula, and others.

• A survey of students' opinions in recent years regarding academic subjects, the level of exam questions, and the obstacles surrounding the teaching and learning process.

Weaknesses:

- Students are accepted into the department at the lowest grades, which indicates the low academic level of students accepted into the department.
- Sometimes a student's acceptance into the department is not by his choice, either because of the grade point average or an error in the admission form.
- The absence of a division or unit that takes care of graduates' affairs and communicates with them
- There is no electronic link to the department on the college's website for graduates who can communicate with them and benefit from feedback to improve the teaching and learning process.
- The weakness of the systematic training program, despite its importance, due to the lack of seriousness of the training sites and the weak follow-up by the relevant committees and the distance from these sites, as the student usually chooses the site close to his place of residence.
- The lack of a mechanism to activate relations between the corresponding departments and colleges at the Arab and international levels.

Improvement plan:

- Identifying the educational and training programs announced by Arab and international universities and guiding students.

To benefit from it:

- Trying to find a mechanism to promote the department's program to attract Arab or even foreign students.

Threats:

- The lack of graduates obtaining jobs leads to a lack of student enthusiasm, a lack of interest in studying, laziness, and a lack of creativity.

Third standard: *Continuous improvement of the department's educational environment*

Strengths

- The number of classrooms available at the time is considered sufficient to cover the lecture schedule.

Weak points

- Scientific laboratories do not provide the devices and equipment available to some laboratories.
- The level of furnishing of classrooms is considered modest.

Optimization

- Increase the financial allocations necessary to build model laboratories with sufficient spaces and equipped with modern laboratory devices and equipment.
- Increase financial allocations to furnish classrooms and equip them with the necessary modern technologies.

Threats

- Poor performance of students in carrying out laboratory experiments for experiments in which one or two devices are used, as this leads to not all students being able to carry out the experiments themselves, but rather being content with only watching their colleagues or laboratory staff while carrying out such experiments, which reflects negatively on the student's academic level due to the importance of the practical aspect in scientific disciplines.

Fourth standard: *Curriculum*

strength point

- Compatibility between the curriculum and the department's stated mission.

Weaknesses

- Lack of actual participation of beneficiary entities in designing and developing curricula.
- Lack of international and regional cooperation mechanisms to develop curricula.
- Lack of financial resources allocated for writing and translation that serve both learning and teaching.

Optimization

- Striving to develop curricula by implementing continuous updating of curricula
- Paying attention to the labor market and meeting its growing and evolving needs.
- Benefiting from new information for scientific competencies who completed their studies abroad

Threats

- The ongoing financial and political crises and their impact on educational curriculum development plans
- Weak will of the teaching staff in the field of self-development
- Weak mutual trust between different generations within the educational framework due to lack of communication

Proposed procedures for the fourth standard

- Periodic review of educational curricula through specialized committees in comparison with scientific development and progress.
- Preparing regular reports on the needs and needs of the labor market and their suitability to the approved curricula.
- Providing the opportunity for educational institutions in the private sector and employers to participate in developing curricula.
- The department listens to the opinions of students and stakeholders to determine their requirements and formulate curricula and general directions towards achieving their desires and needs.
- Achieving the balance as much as possible between modernization and application requirements and the needs of the learner and society.
- Benefiting from the evaluation results in the process of making corrective decisions to develop curricula and educational programs.

Items for evaluating the fourth standard

The existence of a study prepared by the department's scientific committee explaining the compatibility of curricular objectives with educational outcomes and the extent of their conformity with international standards.

- There is an academic description for all courses that provides sufficient information about teaching and learning methods, evaluation, and course contents, and it is announced on the website and documented.
- The courses contain theoretical and practical aspects that help the student acquire applied skills
- The department adopts a variety of teaching and learning methods, including interactive lectures, e-learning, self-learning, problem-solving methods, and teaching in small groups.
- Enhancing students' self-education through graduation research in the final academic year.
- There is a diversity of methods for evaluating students, such as theoretical, electronic, and oral exams

Fifth standard: *Faculty members*

Strength point

- Diversity of the precise specializations of the teaching staff.
- All teachers complete their teaching quorum, in addition to assigning most of them additional hours.
- Most of the teachers received an academic promotion, especially from the rank of assistant teacher to teacher.
- The ratio of students to the number of teachers is considered somewhat acceptable.

Weaknesses

- The small number of teaching staff holding the title of professor or assistant professor in the specific specialty of the department.
- Lack of opportunities for interaction with international academic institutions, which negatively affects the ability to learn about modern methods in the teaching and learning processes.

Optimization

- Increasing support for training programs for teaching staff by the Ministry for the purpose of informing the largest possible number of teachers about the modern methods used in higher education systems in the world.
- Activating agreements between the department and corresponding departments around the world to increase teaching experience.
- Increasing opportunities for obtaining academic promotions for the purpose of supporting the initial and postgraduate study programs in the department.

Threats

- The modest experience of some teachers sometimes prevents the proper implementation of the curriculum.

Sixth standard: *Financial Support*

Strength point

- Employee and teaching salaries are secured from the annual budget.
- The department maintains the good academic level because the financial aspect does not affect its work, which suffers from colleges whose method of study depends on the financial dues the student pays to secure the study, which leads to a low academic level.

Weaknesses

- Lack of financial allocations for scientific research and the absence of financial allocations to purchase modern laboratory equipment and materials for the purpose of keeping pace with modern developments.

Optimization

- Ease of securing financial resources when available to cover the department's needs for equipment and other materials.
- Activating the joint cooperation mechanism to provide financial resources that help cover some expenses for which resources are not available or limited budget.

Threats

- The lack of appointments for new young cadres, even those who excel academically, limits the possibility of developing or implementing some ambitious programs.
- The department is unable to contract with administrative, technical, or teaching staff to meet its needs due to the lack of self-financing that can be used to cover salary expenses.

Seventh standard: *Evaluation and Examination System*

Strength point

The department has a strong evaluation and examination system that can collect data about its students regarding the degree of their academic qualifications to practice the profession and their performance after graduation, which helps in providing feedback from its evaluation and examination programs. The two previous standards are linked to both the student and the teacher.

- The evaluation system in place at the college
- Collecting, evaluating and analyzing data
- Using data to develop the program
- Scientific tests (written and oral, tests during learning)
- Evaluating students' individual and group work
- Student success rates.
- Educational and scientific supervision forms

Optimization

- Conducting training courses for students and teaching staff to learn and conduct electronic tests using the latest programs
- Providing smart electronic halls

Weaknesses

- The students' weak English language, which hinders the answering process
- Lack of experience among students and teaching staff in electronic matters and managing evaluation programs.

The file for completing the self-evaluation report for the Chemistry Department was previously reviewed, audited and approved.

Scientific Committee

Signature:

Name:

Date:

Head of Department

Signature:

Name:

Date:

Quality Assurance and Performance Evaluation Division

Signature:

Name:

Date:

Assistant Dean for Scientific Affairs

Signature:

Name:

Date:

Dean

Signature:

Name:

Date: