



University of Mosul

Environmental Science and Technology

College Prospectus

2012-2013



The Dean's Welcome

By the name of Allah the Most Gracious and
the Most Gratitude

Praised to be Allah, prayers of Allah be upon our prophet Mohammed (Peace be upon him). Throughout history, the environment accommodated human beings' residues, and when the damages exceeded their boundaries resulting in catastrophic consequences accompanied with commence of renaissance, especially, in the major cities. Global environmental disasters such as global warming, Eutrophication, radioactive pollution, animal and plant genera extinction, congenital malformations and depleting the natural resources are the result of violations of global companies. Efficient solutions can be performed including the prevention of extravagance and good exploitation of natural resources according to our religion's teachings. It was necessary to establish specialized environmental institutes, centers and universities to solve this problem. The College of Environmental Sciences and Technology (CEST)- Mosul University is considered as a unique college with its ecological specialty on a national level. The establishment of CEST was a response to the miseries that the Iraqi environment is facing, some of which are consequences of wars; others are outputs of backwardness in different fields of life.

The college was established in 2006 starting with two Departments: (Environmental sciences) and (Environmental technology). Since its establishment, the college held a number of conferences and symposiums. Future ambitions of the college include initiating new departments such as (Environmental law and regulations, Environmental public health, Environmental planning and development and Sustainable energy). Looking forward to consider environment as everyone responsibility.

May Allah bless you all

Prof. Dr. Muath H. Mustafa

College Dean

About the College



The College of Environmental Sciences and technology was established in 12 June 2006 and commenced its tasks with the beginning of the academic year 2006-2007. The college includes two departments: Environmental sciences and environmental technology with (312) students. CEST celebrated the graduation of its third group of undergraduates for the academic year 2011-2012 with (37) students. Higher studies program (M.Sc. in environmental science) was initiated for the academic year 2012-2013 with fourteen students.

The college provides the society with graduates equipped with scientific knowledge to describe environmental problems with new concepts and suggesting scientific solutions could be applied with national capabilities. The college contributes to community service through holding symposiums, seminars and conferences. CEST held its second environmental conference for the period 27-28 November 2012 to interact directly with the Iraqi environmental needs through discussing academic and practical researches.



Old Building



New Building



The Administration Council of Quality

□ The Vision

Environmental specialty became a priority concern of man especially in advanced countries for its direct relation to human life and activities. Therefore, the college seeks to provide scientific and educational conditions suitable to get together students interested in environment and preparing them to be the cornerstone of environmentalists who participate fully and actively in solving and awareness of environmental hazards.

□ The Message

The college message includes the following:-

- Contributing to proliferation of environmental awareness.
- Spreading environmental culture.
- Preparing a graduate equipped with a scientific background with acquiring experiences and skills which enable them dealing with environmental problems to participate actively in solving environmental problems after graduation.
- Achieving sustainable energy targets and cleaning the environment in the country.

□ The Goals

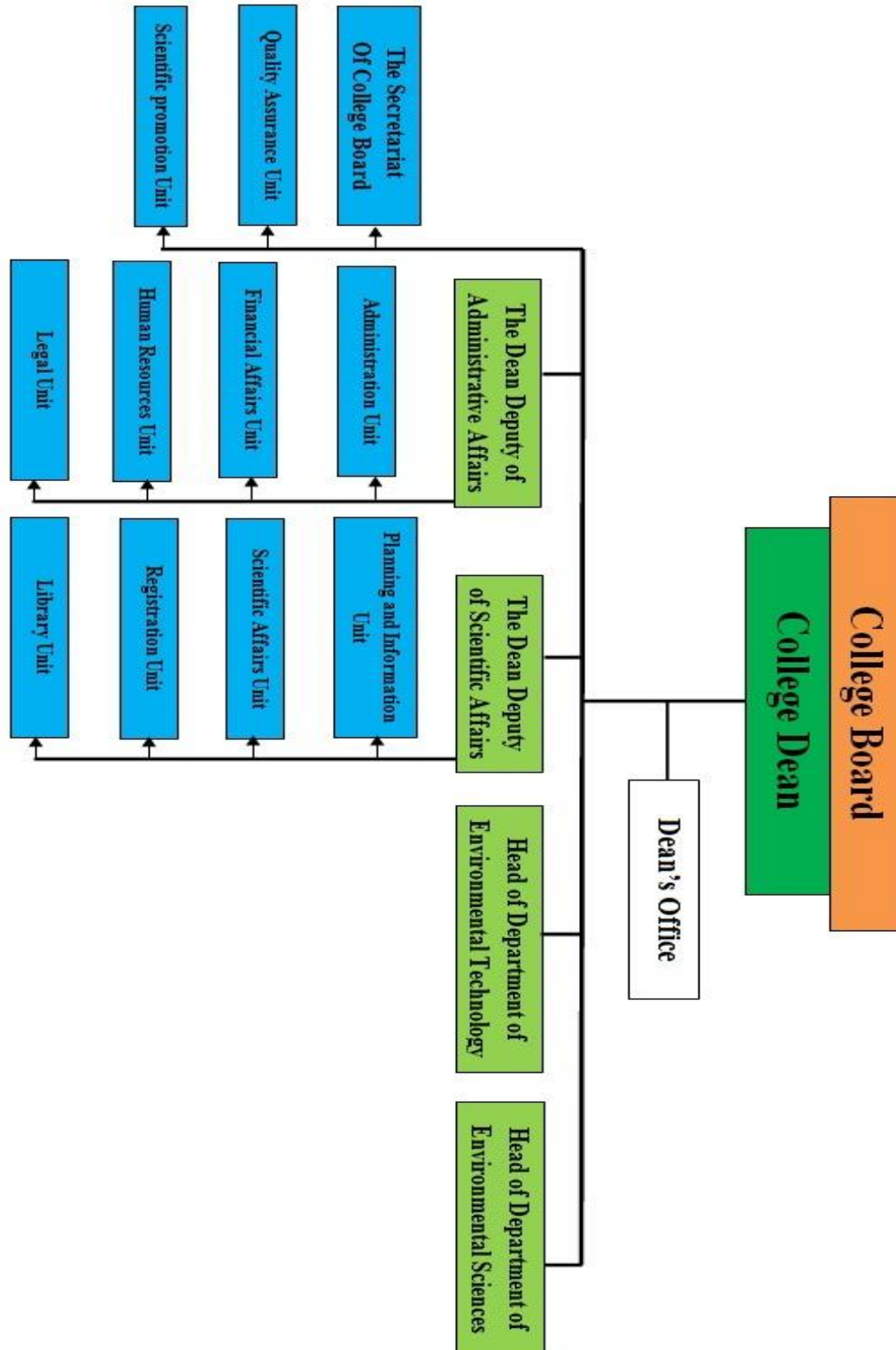
- Offering students curricula with scientific subjects accompanied with practical and field work courses to enable them to understand and diagnose environmental problems including reasons and accurate practical and scientific descriptions, finally, proposing suitable solutions through designing models for each case individually.

- Conducting scientific research related to national environmental subjects to describe the facts and possibilities to define the problems and their relations to each other with suggesting immediate solutions and long term solutions to preserve the environmental component.
- Higher studies program was initiated to provide the society with specialists with the ability to diagnose the environmental problems.
- The College seeks to establish new departments such as (Sustainable energy, Environmental law and regulations, environmental public health, and environmental planning and development).





The College Structure



The College Units



1. The Secretariat of the College Board:

Typing the college board's meeting minutes and sending them to Mosul University Presidency office, and following up the endorsement of the meeting minutes.

Name	Tasks
Khada Salim	Receiving mail and issuing formal letters
Fanar Naif	Electronic documentation

2. Secret Mail Office:

Receiving secret mail from the Dean's office and delivering it to the specific destination. Also, replying formal letters besides following up tasks assigned by the dean.

Name	Tasks
Dureid Ayoub	Following up of the office's affairs

3. Scientific Promotions:

Following up scientific promotion affairs for the college teaching staff according regulations.

Name	Tasks
Rahma Taher	Receiving mail and issuing formal letters and electronic documentation



4. Dean's Office:

Office's management includes following up of formal mail and documentation. Also, following up electronic mail of the college, and organizing Dean's meetings.

Name	Tasks
Mushtaq Ayad	Receiving mail and issuing formal letters and electronic documentation Following up of Electronic mail and the Dean's meetings.
Hawra Jassim	Following up of Electronic mail and the Dean's meetings. Receiving mail and issuing formal letters and electronic documentation

5. Dean's Scientific Affairs Deputy's Office:

The tasks summarized with office management through following up correspondence to the college and transferring it to units, also, organizing interview timetable of the Dean's deputy.

Name	Tasks
Ilham Khalil Mohammed	Following up of the Dean's Deputy affairs

6. Dean's Administrative Affairs Deputy's Office:

The tasks summarized with office management through following up correspondence to the college and transferring it to units, also, organizing interview timetable of the Dean's deputy.

Name	Tasks
Inara Jamal Jalal	Following up of the Dean's Deputy affairs
Rabea Moafaq Abdul Jabbar	Following up of the Dean's Deputy affairs



7. Human Resources Unit:

Follow up of formal mail of the college. Issue of administrative orders for the college's staff.

Name	Tasks
Abdul razaq Farhan	Head of Unit
Nada Younis	Following up of database system
Dureid Salim	Following up of college staff files
Ra'ad Ibrahim	Promotions
Basher Mudhafar	ID's and electronic documentation
Ragheed Dureid	Typing and documentation of formal letters
Sura Leith	Typing and documentation of formal letters

8. Financial Unit:

- Preparing tables of monthly salaries and promotions.
- Preparing monthly retirement tables.
- Organizing lectures fees and monthly accountancy analysis.
- Following up purchase committee.

Name	Tasks
Raghad Hashim	Head of Unit
Yaseen Ahmed	Following up of salary
Rabee Leith	Financial records
Yousif mahir	Lectures fees
Zeid Khalid	Records affairs
Luma Yonan	Payment affairs



9.Registration Unit:

- Following up of students and graduates affairs.
- Documentation of students files.
- Preparing required tables for all academic years.
- Issuing transcripts.
- Following up of issuing students' IDs and no dues notes.

Name	Tasks
Salim Yassin	Head of Unit
Ahmed Hazim	Head Deputy
Abdulkarim Tahseen	Head of graduates affairs
Emad Mizael	Following up of students affairs
Ahlam Abdulmajeed	Formal Mail Affairs
Suha Salim	Computation affairs
Falah Hasan	Following up of absence

10.Scientific Affairs Unit:

- Following up researches and sending updates to the department of research and development in Mosul University presidency periodically.
- Updating Ministry's activities system periodically.
- Following up scholarships and fellowships affairs.
- Following up the college conferences and symposiums affairs.
- Following up studying files for college's staff studying abroad.

Name	Tasks
Prof. Dr. Nawfal A. Al-Masri	Head of Unit
Alaa Ali	Study leave
Ahlam Khalil	Following up of formal mail
Sara Basam	Receiving formal mail
Mohammed Abdulrazaq	Electronic documentation

11. Higher studies Unit:

- Following up electronic system for students.
- Electronic documentation of formal letters.

Name	Tasks
Dr. Naif Bakir	Following up electronic system for students
Omar Abduljabar	Replying formal letters
Fanar Naif	Following up students' study leaves affairs

12. Planning and Information Unit:

- Preparing electronic database to document information related to college staff.
- Preparing a monthly updated teaching staff database.
- Preparing a quarterly report on the college's activities.
- Preparing a yearly report concerning the college's activities.
- Preparing the scientific plan's report at the beginning of academic year.

Name	Tasks
Wisam Saeed	Head of Unit
Muthanna Mohammed	Study leave
Hana Adalat	Study leave
Areej Abdulghani	Mothering leave
Areej Khazaal	Updating college staff database
Fatima Ahmed	Preparing annual reports



13. Administration Unit:

- Following up reception and vehicles movement in the college.
- Opening and closing college's gates.
- Following up of cleaning duties.
- Opening signature records of the employees.
- Following up maintenance tasks in the college.
- Preparing all the college's needs.
- Following up the daily formal mail.

Name	Tasks
Hashim Qubua	Head of Unit
Emad Mohammed	Cleaning duties
Rabeea Muafaq	Reception duties
Mohammed Salim	Cleaning duties
Khamis Salim	College's Garage
Ali Idrees	Cleaning duties
Yasir Hamza	Driver
Rakan Mohsin	Driver
Ammar Esam	Cleaning duties
Ahmed Ibrahim	Absence affairs

14. Internal Auditing Unit:

- Auditing of all financial checks and accountancy records.
- Auditing of purchase documents and related issues.
- Monitoring of work within the college's units.

Name	Tasks
Batool Younis	Head of Unit
Mohammed Bashir	Auditing of units
Duaa Ziad	Absence record
Haitham Abdulrazaq	Auditing of units



15. Research and Development Unit:

- Following up training courses and methods of teaching courses.
- Following up scientific researches and research plans.
- Following up conferences, symposiums and workshops.
- Following up mutual cooperation with other universities.

Name	Tasks
Rawa Mahmood	
Ahmed Riadh	
Omar Ghanim	

16. Quality Assessment Unit:

- Assuring the application of quality assessment standards and systems to achieve the targets of qualitative education and scientific research and community service.
- Putting measurements and standards of quality for all administrative and academic activities inside the college.
- Improving human resources capabilities.
- Building an integrated system to assess and improve the performance of teaching and administrative staff in all units and scientific departments in the college.
- Following up of scientific departments' commitment in the college to apply quality standards and submitting periodical reports to the quality assurance department in the university presidency.

Name	Tasks
Lilian Yaquob	Head of Unit
Ma'an Hashim	Coordinator of assessment forms
Bilal Salim	Following up of documentation process in the departments
Noor Sa'ad	Documentation and college website affairs
Mustafa Kamil	Documentation and college website affairs



17. Computer and Internet Unit:

- Management and following up of internet service and communication in the college.
- Maintenance of computers and accessories in the college.
- Holding developmental training courses of computer in the college.
- Supervision of computer labs in the college.

Name	Tasks
Nabil Zuheir	Head of Unit
Didar Khalaf	Computer lab

18. Free Education Unit:

- Receiving and classification of academic books inside the unit.
- Receiving and delivering academic books to students and providing them with no dues at the end of the academic year.
- Following up of borrowing process of academic books by college teaching staff.

Name	Tasks
Israa Mohammed	Head of Unit

19. Legal Unit:

- Following up of legal affairs of the college.
- Preparing legal bonds for the college staff.

Name	Tasks
Sa'ad Mahmood	Preparing legal documents
Jinan Ibrahim	Preparing legal documents
Nagham Hazim	Documentation affairs

20. The Library Unit

- Receiving and classifying books according to titles and subjects.
- Preparing index for each book with labels.
- Preparing records to document books information and updating it.

Name	Tasks
Hanan Ahmed	Head of Unit

21. Al-Rafidain Environment Quarterly Unit:

Name	Tasks
Sa'ad Mohammed	Arrangement and typing process
Ikhlas Abdulaziz	Administrative affairs
Isra abdulbait	Administrative affairs



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College of Environmental Sciences and Technology

Department of Environmental Sciences

About the Department

The department of environmental sciences pursues its activities through teaching specialized subjects which help the students understand and describe pollution scenarios within the basic elements of environment (water, air and soil). Also, the department conducts researches in the fields of environmental sciences and supervision of higher studies students by the departments' teaching staff.

The Vision

The department provides educational and scientific atmosphere to get together students with interest in the specialty. The students are expected to acquire necessary skills and practical knowledge to become successful environmentalists. The department works to provide the community with graduates can diagnose and solve environmental problems.

The Message

It is important to improve the environmentalist scientific background through academic and social activities and develop his personal skills to enable him to maintain the basic elements of environment (air, water and soil).

The Goals

- Providing students with environmental information in all its aspects.
- Developing environmental skills and scientific backgrounds.
- The graduate will be equipped with necessary environmental knowledge and technique to achieve his goals.
- The department's graduates are capable to conduct and apply their practical knowledge in field.
- The department participates in providing students with scientific skills to succeed in their future jobs.
- The graduate has advanced understanding of the relationship between man and his environment.



Environmental Science and Technology



The Teaching Staff

of the Department of Environmental Sciences

No.	Name	Title	Specialty	Position
1	Dr. Muath H. Mustafa	Professor	Environmental Chemistry	College Dean
2	Dr. Abdulsatar Abdulkadir	Assist. Prof.	Biology	Dean Deputy for Scientific Affairs
3	Dr. Yahya Daood Wahab	Assist. Prof.	Biology	-
4	Dr. Mazin Nazar	Lecturer	Biology	Dean Deputy for Administrative Affairs
5	Dr. Ahmed Nori	Lecturer	Physics	Head of Environmental Science Department
6	Dr. Yusra Majeed	Lecturer	Chemistry	-
7	Mishaal Ali	Lecturer	Biology	-
8	Mohammed Ibrahim	Lecturer	Biology	-
9	Sinan Thanon	Lecturer	Biology	-
10	Dr. Ansam Ahmed	Lecturer	Biology	-
11	Rawa Mahmood	Lecturer	Biology	-
12	Suheir Moneer	Assist. Lecturer	Biology	-
13	Ali Basheer	Assist. Lecturer	Biology	-
14	Mohammed Mahmood	Assist. Lecturer	Biology	-
15	Hana Ramadan	Assist. Lecturer	Biology	-
16	Thamir Khalil	Assist. Lecturer	Biology	-
17	Ghaida Ahmed	Assist. Lecturer	Biology	-

18	Fatin Khalil	Assist. Lecturer	Biology	-
19	Bilal Salim	Assist. Lecturer	Biology	-
20	Ayman Mohammed	Assist. Lecturer	Medicine	-
21	Omar Idrees	Assist. Lecturer	Chemistry	-
22	Suha Sa'ad	Assist. Lecturer	Chemistry	-
23	Ibtihal Idrees	Assist. Lecturer	Biology	-
24	Mohammed Ali	Assist. Lecturer	Biology	-





Syllabus

First Year

First semester						
No	Code	subject	Theoretical	Practical	Tutorial	Semester Credit
1	ESC 1101	Analytical chemistry	3	2	-	4
2	ESC 1102	Geology	2	2	-	3
3	ESC 1103	physics	2	2	-	3
4	ESC 1104	Computer Science	2	2	-	3
5	ESC 1105	Human Right	2	-	-	2
6	ESC 1106	Biology	2	2	-	3
7	ESC 1107	Mathematics	2	-	1	2
Total			15	10	1	20
Total Hours per week				26		

Second semester						
Code	subject	Theoretical	Practical	Tutorial	Credit	Total credit prayer
ESC 1101	Analytical chemistry	3	2		4	8
ESC 1102	Geology	2	2		3	6
ESC 1103	physics	2	2		3	6
ESC 1104	Computer Science	2	2		3	6
ESC 1105	Human Right	2	--	-	2	4
ESC 1106	Biology	2	2		3	6
ESC 1107	Mathematics	2		1	2	4
ESC 110	Organic chemistry	2	2		3	3
Total		17	12	1	23	43
Total Hours per week		30				

Second Year



Hours per Week and Credits						
First semester						
No	Code	subject	Theoretical	Practical	Tutorial	Semester Credit
1	ESC 2101	Environmental chemistry	2	2	-	3
2	ESC 2102	Animal Taxonomy	2	2	-	3
3	ESC 2103	Ecology	2	2	-	3
4	ESC 1104	Biochemistry	2	2	-	3
5	ESC 2105	Environmental Geology	2	2	-	4
6	ESC 2106	Statistics	2	2	-	3
7	ESC 2107	Democrasy	2	-		2
Total			15	12	-	
Total Hours per week			27			21

Second semester						
Code	subject	Theoretical	Practical	Tutorial	Credit	Total credit prayer
ESC 2208	Environmental chemistry	2	2		3	6
ESC 2209	Plant Taxonomy	2	2		3	6
ESC 2210	Hydrology	2	2		3	6
ESC 2211	Microbiology	2	2		3	6
ESC 2212	Climatology	2	--		2	6
ESC 2213	Survey and Engineering Drawling	2	4		4	7
ESC 2214	Plant Ecology	2	2		3	5
Total		14	14		21	
Total Hours per week		28				42



Third Year

First semester						
No	Code	subject	Theoretic al	Practical	Tutori al	Semeste r Credit
1	ESC 3101	Soil pollution	2	-	-	2
2	ESC 3102	Air pollution	2	-	-	3
3	ESC 3103	Food pollution	2	2	-	3
4	ESC 3104	Water pollution	2	2	-	3
5	ESC 3105	Waste Management	3	-	-	3
6	ESC 3106	Environmental Education	2	-	-	2
8	Esc 3108	Mycology	2	2	-	3
Total			17	6		21
Total Hours per week			23			

Hours per Week and Credits							
Second semester							
No	Code	subject	Theoretic al	Practical	Tutorial	Credit	Total credit prayer
9	ESC 3209	Microbial Ecology	2	2		3	5
10	ESC 3210	Remote sensing application md GIS	3	2		4	7
11	ESC 3211	Biodiversity	2	-		2	5
12	ESC 3212	Ec- toxicology	2	2		3	6
13	ESC 3213	Wastewater Treatment	2	2		3	6
14	ESC 3214	Environmental Impact Assessment	2	-		2	4
15	Esc 3215	Alger	2	2		3	6
Total			15	10		22	41
Total Hours per week			25				

Fourth Year



First semester						
No	Code	subject	Theoretical	Practical	Tutorial	Semester Credit
1	ESC 4101	Environmental Legislation	3	-	-	3
2	ESC 4102	Safety and Environmental public health	3	-	-	3
3	ESC 4103	Gradation project	1	3	-	2
4	ESC 4104	Environmental Physics	2	-	-	2
5	ESC 4105	Sustainable Development	2	-	-	2
6	ESC 4106	Atmospheric chemistry	2	-	-	2
7	ESC 4107	Environmental Field application and summer Training	1	4	-	3
Total			14	7		17
Total Hours per week			21			

Second semester							
No	Code	subject	Theoretical	Practical	Tutorial	Credit	Total credit prayer
8	ESC 4208	Environment Cost	2			2	5
9	ESC 4209	Renewable Energy	2			2	5
10	ESC 4210	Gradation project	1	3	-	2	4
11	ESC 4211	Radiation Pollution	2			2	4
12	ESC 4212	Environmental Nanotechnology	2			2	4
13	ESC 4213	Environmental Technology	3			3	5
	Total		11	3		13	30
	Total Hours per week		14				



Postgraduate Curriculum courses of Environmental Science Department Msc . Courses

First semester				
No	Code	subject	Hrs	Units
1	MA 5101	Advance Environmental chemistry	2	2
2	MA 5102	Advance Ecology	2	2
3	MA 5103	Advance statistical Methods Experimental design	2	2
4	MA 5104	Environmental Biology	2	2
5	MA 5105	Water Quality and pollution	2	2
6	MA 5106	Advance Environmental pollution ;Air ; Noise ; Radiation ; Solid water ;solid	3	3
7	MA 5107	Technical English	1	-
Total			14	13

Second semester				
No	Code	subject	Hrs	Units
1	5208	Wastewater treatment	2	2
2	5209	Environmental Geo sciences and planning	2	2
3	5210	Bioremediation	2	2
4	5211	Natural Environmental Resources and conservation	2	2
5	5212	Advance pollution control technology	2	2
6	5213	Monitoring and water Resource	2	2
7	5214	Technical English	1	
Total			13	12



Department of Environmental Technology

About the Department

The department prepares well sophisticated graduates who are capable to diagnose and suggest suitable solutions to environmental problems.

The Vision

The department was established in the academic year 2008-2009. It is concerned with teaching environmental technologies and suggesting reasonable solutions for environmental problems.

The Message

1. Providing graduates who are capable to deal with environmental problems and suggesting suitable solutions.
2. Serving community through conducting environmental tests and providing consultation.



The Goals

- Preparing graduates with advanced theoretical and practical scientific background to practice their tasks.
- The graduate is capable to suggest and design control systems to handle all kinds of pollution.
- Participation in environmental development through conducting scientific research.



The Teaching Staff

of the Department of Environmental Technology



No.	Name	Title	Specialty	Position
1	Dr. Taha Hussein	Assist. Prof.	Biology	Head of Environmental Technology Department
2	Dr. Naufal Al-Masri	Professor	Engineering	-
3	Dr. Ayad Fadeel	Assist. Prof.	Engineering	-
4	Dr. Rasheed Mahmood	Assist. Prof.	Physics	-
5	Dr. Naif Rahman	Lecturer	Chemistry	-
6	Dr. Naif Baker	Lecturer	Agriculture	-
7	Dr. Salim Yaseen	Assist. Lecturer	Biology	-
8	Dr. Riadh Abdullah	Lecturer	Biology	-
9	Lilian Yaquob	Lecturer	Engineering	Head of Quality Assurance Unit
10	Maan Hashim	Assist. Lecturer	Biology	-
11	Muthaina Abdullah	Assist. Lecturer	Computer science	-
12	Abdulsattar Jubeir	Assist. Lecturer	Agriculture	-
13	Rasha Khalid	Assist. Lecturer	Engineering	-
14	Roaa Mudhafar	Assist. Lecturer	Engineering	-
15	Iman Abdulrahman	Assist. Lecturer	Engineering	-
16	Ra'ad Mahmood	Assist. Lecturer	Geography	-
17	Asmaa Emad	Assist. Lecturer	Physics	-
18	Mohammed Fakhr Aldin	Assist. Lecturer	Engineering	-



Syllabus

First Year

Subject	Hours						No. of units
	First Term			Second Term			
	Theoretical	Practical	Tutorial	Theoretical	Practical	Tutorial	
Mathematics	3	-	1	3	-	1	6
Engineering drawing	-	4	-	-	4	-	4
Geology	2	2	-	2	2	-	6
Physics	2	2	-	2	2	-	6
Computer	1	2	-	1	2	-	4
Microbiology	2	2	-	2	2	-	6
Analytic chemistry	2	2	-	2	2	-	6
Human Rights	2	-	-	2	-	-	4
Summation	14	14	1	14	14	1	42
No. of hours/week	29			29			

Second Year

Subject	Hours						No. of units
	First Term			Second Term			
	Theoretical	Practical	Tutorial	Theoretical	Practical	Tutorial	
Mathematics	3	-	1	3	-	1	6
Statistics	2	2	-	2	2	-	6
Fluid mechanics	2	1	1	2	1	1	5
Environmental Chemistry	2	2	-	2	2	-	6
Surveying	1	2	-	1	2	-	4
Hydrology	2	2	-	2	2	-	6
Environmental science	2	-	-	2	-	-	4
Organic chemistry/1st course	2	2	-		1	-	3
Water quality	-	-	-	2	1	-	2.5
Summation							42.5
No. of hours/week	29			28			



Third Year

Subject	Hours						No. of units
	First Term			Second Term			
	Theoretical	Practical	Tutorial	Theoretical	Practical	Tutorial	
	1	1	1	1	1	1	
Engineering and numerical analysis	2	-	1	2	-	1	4
Water supply and treatment	2	2	-	2	2	-	6
Techniques of Measurements	2	-	-	2	-	-	4
Geographical and environmental information system	2	2	-	2	2	-	6
Solid wastes	2	-	-	2	-	-	4
Liquid wastes of industry/1st course	2	-	-	-	-	-	2
Pollution of soil/ 1st course	2	2	-	-	-	-	3
Thermodynamic/ 1 st course	2	-	-		-	-	2
Biochemistry /2nd course	-	-	-	2	2	-	3
Elective course/2nd course	-	-	-	2	-	-	2
Summation	16	6	1	14	6	1	36
No. of hours/week	23			21			



Fourth Year

Subject	Hours						No. of units
	First Term			Second Term			
	Theoretical	Practical	Tutorial	Theoretical	Practical	Tutorial	
Wastewater and sludge treatment	3	2	-	3	2	-	8
Environmental management and costs	2	-	-	2	-	-	4
Remote sensing	2	2	-	2	2	-	6
Air pollution	2	-	-	2	-	-	4
Environmental Legislation /1st course	2	-	-	-	-	-	2
Irrigation and drainage /1st course	-	-	-	2	-	-	2
Renewable energy/2nd source		-	-	2	-	-	2
Urban planning /2nd course	-	-	-	2	-	-	2
Elective course/1nd course	2	-	-	-	-	-	2
Graduation project	-	4	-	-	4	-	4
Summer training	-	-	-	-	-	-	2
Summation	13	8	-	15	8	-	38
No. of hours/week	21			23			

The Biology Lab

Description

This lab provides all assistance needed by students in the biological fields including: Biology, microbiology, and fungi.

Instruments

<i>Instruments</i>	
1	Microscope
2	Oven
3	Autoclave
4	Atomic absorption spectrophotometer





The Research Lab

Description

This lab was the first one to provide services to teaching staff and for M.Sc. and B.Sc. students of the college through conducting measurements and analysis required in scientific research.

Instruments

<i>Instruments</i>	
1	Atomic Absorption Spectrophotometer
2	HPLC
3	Dosing Pump
4	Gas Detector
5	Digital Burett
6	Flow Meter
7	Mill Grinder
8	Chlorine Analyzer
9	Mortar & Pastel
10	Homogenizer
11	Filtration System
12	(TDS + EC +pH Multi-meter)

13	EC-meter
14	DO-meter
15	Turbidimeter
16	Mixer
17	Chemical Oxygen Demand (COD) Analyzer
18	Centrifuge
19	Susceptible Balance
20	FTIR
21	Compound Microscope
22	Flame Analyzer
23	Double-Beam Spectrophotometer
24	Heavy Metal Detector
25	Sieves



The Water Lab

Description

This lab provides services in water tests and measurements for teaching staff and students.

Instruments

<i>Instruments</i>	
1	TOC Analyzer
2	Jar Test System
3	Double Beam-Spectrophotometer
4	pH-meter
5	BOD incubator
6	DO-meter
7	Giger meter
8	Flame Photometer
9	pH-meter
10	E.C-meter

The Environmental Lab

Description

This lab provides assistance for teaching materials for students in the fields of environment and pollution.

Instruments

<i>Instruments</i>	
1	Chemical Oxygen Demand
2	Water Bath
3	pH-meter
4	Turbidimeter
5	Digital Titrator
6	Deionizer
7	Sevies Shaker
8	Chloride Analyzer
9	Ultra Filter System
10	Compound Microscope
11	pH-meter



12	Conductivity meter
13	Dissolved Oxygen meter
14	Oven
15	Electronic balance
16	Furnace
17	Vacuum pump.
18	Flame photometer
19	Spectrophotometer
20	Chloride analyzer
21	Incubator
22	COD



The Mycology Lab

Description

This lab provides support in the fields of general environment, plant, and water pollution.

Instruments

<i>Instruments</i>	
1	Water Distilater
2	Water Bath
3	Cooled Incubator
4	Incubator
5	Hot Plate with Magnetic Stirrer
6	Spectrophotometer
7	Compound Microscope
8	Dissecting Microscope
9	Balance



Scientific and Cultural Achievements

- The college held scientific conferences and symposiums since its establishment with a scientific conference every two years and annual symposium.
- Holding the second scientific conference for the period 27-28/ 11/ 2012.
- Holding seven seminars with four seminars in the department of environmental sciences and three in the department of environmental technology.
- Assist. Prof. Dr. Rasheed Mahmood received an award in the day of science, Mr. Ra'ad Mahmood received an award for scientific innovation, Dr. Taha Hussein and Dr. Abdulsatar Abdulqadir received an award for participation in a workshop in London.
- Mutual Agreements:
 - Training the first and second groups of students in Aleppo University.
 - Future agreement with Middle East University in Turkey.
 - Training the third group of students for the period 23-27/4/2012 in Haran University, Turkey.
- Courses:
 - Training courses of graduates in methods of teaching courses (Computer efficiency).
 - Distance education training for a number of the college's staff.
 - There is an academic plan to send four lecturers to receive PhD degrees and one employee to receive M.Sc. degree and seven employees with study leaves to receive PhD degrees.
- Athletic activities:
 - Participation in the university league.
 - Holding a yearly athletic festival in 18/5/2011 .
- The establishment of a scientific quarterly entitled Alrafidain environment quarterly.
- Future plans: it is planned to establish new departments such as environmental public health department and environmental regulations department and environmental planning and development department and sustainable energy department. Also, there is an intention to start higher studies to Master and PhD degrees and establishing environmental consulting office.



The college has essential role in community through interacting with other public directorates to spread environmental awareness and create clean environment. The college held a number of training courses, as follows:

- A training course in treatment of environmental pollutants in labs for the period 10-14/4/2011.
- A training course of analysis of chemical solutions for the period 8-9/4/2012.
- Submitting a project regarding improving water plants in Mosul city.
- Study of environmental impact to develop Gyara and Najma oil fields.
- Measurement of radiation level in different areas within Mosul city.
- Conducting researches and studies regarding evaluating water quality for household use.

