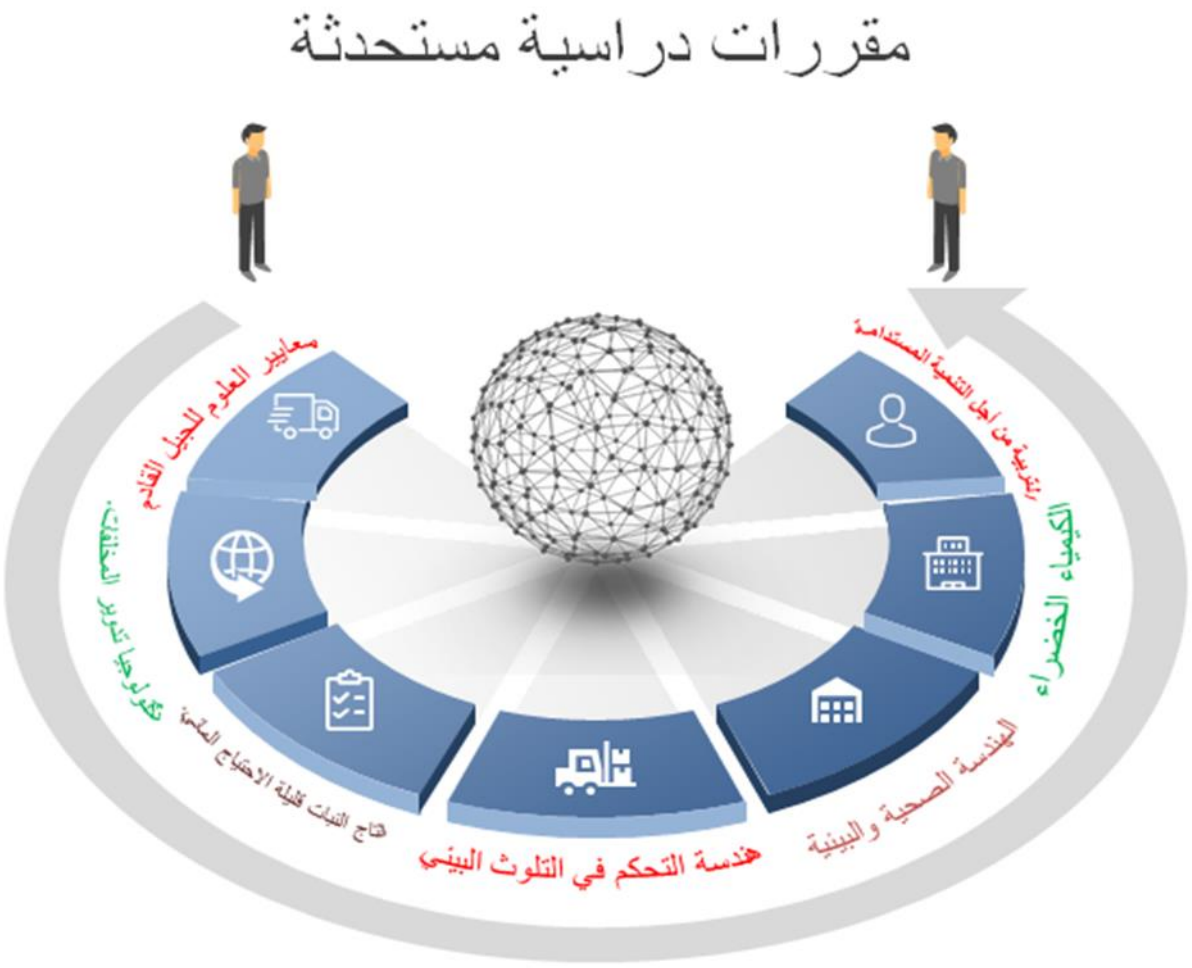
courses related to the environment and sustainability

The number of courses related to the environment and sustainability / Total number of courses offered by the university:

At Assiut University, there are many new programs and courses being taught in some of the university's faculties and institutes. A total of 312 courses related to the environment and sustainability are taught at the undergraduate level (first university stage) out of a total of 3,557, which is 8.7%, and 134 courses at the postgraduate level.

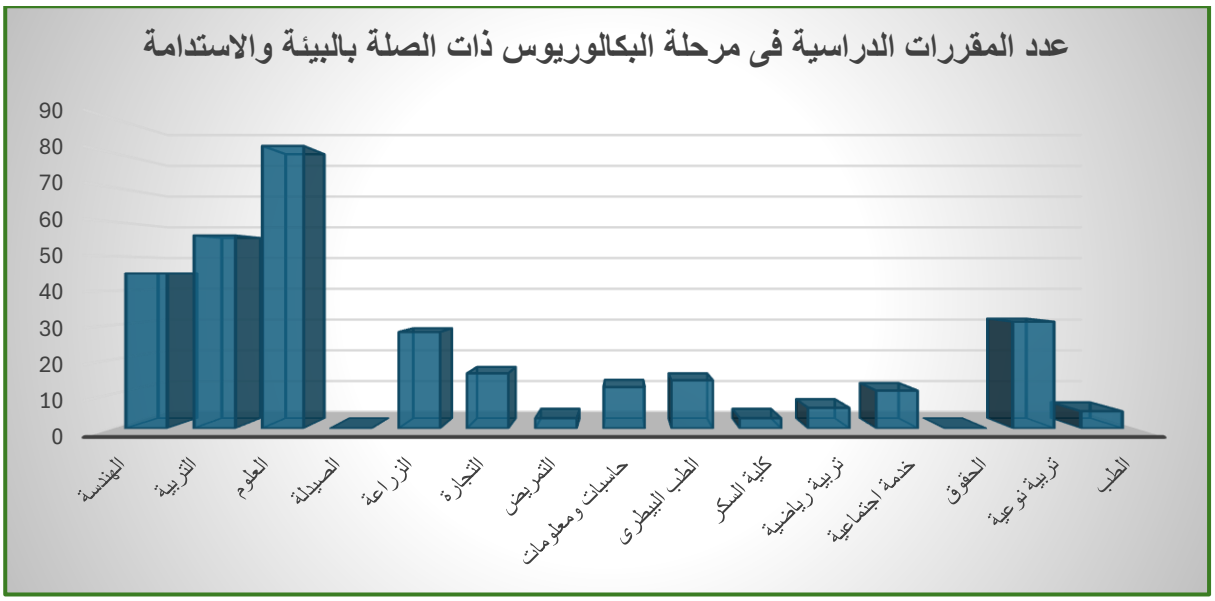
The shape of some newly introduced academic programs



Form for some newly introduced courses

A table of the number of courses related to the environment and sustainability at the undergraduate and graduate levels.

College	Undergraduate Level		Graduate Level
	Number of courses related to environment and sustainability	Total number	Number of courses related to environment and sustainability
Engineering	45	556	43
Education	56	1200	2
The sciences	82	691	17
Pharmacy	-	-	9
Agriculture	28	128	19
Commerce	16	57	8
Nursing	3	39	6
Computers and Information	12	54	-
College of Sugar Industry Research and Studies and Integrated Industries	3	42	17
Veterinary Medicine	14	63	-
Physical Education	6	124	1
Social service	11	58	-
Rights	-	-	4
Quality education	31	495	1
Medicine	5	40	7
The total	312	3557	134



THE NUMBER OF UNDERGRADUATE COURSES RELATED TO THE ENVIRONMENT AND SUSTAINABILITY.

1. **FIRST: BACHELOR'S DEGREE STAGE:**
2. **COLLEGE OF MEDICINE :**
3. **THERE ARE (5) COURSES RELATED TO THE ENVIRONMENT AND SUSTAINABILITY TAUGHT AT THE UNDERGRADUATE LEVEL OUT OF A TOTAL OF (40) COURSES; THEY ARE AS FOLLOWS:**
4. **.1THE PATIENT, THE DOCTOR, AND THE COMMUNITYTHE PATIENT, THE DOCTOR, AND SOCIETY**
5. **.2MECHANISMS AND PRINCIPLES OF DISEASES AND TREATMENTMECHANISMS AND PRINCIPLES OF DISEASES AND TREATMENT**
6. **.3INFECTION AND IMMUNITY**
7. **.4HEALTH AND DISEASE IN THE COMMUNITYHEALTH AND ILLNESS IN SOCIETY**
8. **.5RESEARCH AND DISCOVERY/SCIENTIFIC PROJECT**

COLLEGE OF AGRICULTURE

The college offers 28 undergraduate courses related to the environment and sustainability out of a total of 128 undergraduate courses, which is a percentage of 21.87%. They are as follows:

1. Low-water-requirement plant production.The production of plants with low water requirements.
2. Reusing wastewater in agriculture.Reusing wastewater in agriculture.
3. Waste recycling technology.Waste recycling technology.
4. Climate change and sustainability.Climate change and sustainability.
5. Basics of Agricultural Economics.Basics of agricultural economics.

6. Societal Issues.Social issues.
7. Basics of livestock and poultry production.Basics of animal and poultry production.
8. Basics of land.Land fundamentals.
9. Basics of pest control.Basics of pest control.
10.Dairy production.
11.Basics of Food Industries
12.Basics of rural sociology and agricultural extension
13. Community service and environmental development.Community service and environmental development.
14. Life skills.Life skills.
15.Management and operation of modern irrigation systems in desert lands
16.Educational minerals
17. Fertility of the soil and plant nutritionSoil fertility and plant nutrition
18.Developing irrigation and rationalizing water use
19.Organic farming and bio-fertilization.
20.Land reclamation.
21. Groundwater reservoirs in reclaimed landsGroundwater reservoirs in modern lands
22.Soil and water pollution and their treatment
23.Management of land and water resources.
24. Economics of modern agricultural technology.The economics of modern agricultural technology.
25. Applications of biotechnology and nanotechnology in animal production. Applications of biotechnology and nanotechnology in the fields of animal production
26.Sugar technology
27. Human nutrition.
28. Food quality and safety

COLLEGE OF ENGINEERING:

There are (45) courses related to the environment and sustainability taught at the undergraduate level out of total of (556) courses; they are as follows:

1. Water, Climate, and Energy Issues
2.Irrigation and drainage engineering
3. Soil Mechanics Soil mechanics
4.Foundation on problematic soil
5. Topographic area Topographic area
6.Water, energy, and climate issues
7. Design of irrigation facilities design of irrigation facilities (1)
8.Water supply engineering

9.Sanitary and environmental engineering
10.Design of irrigation facilities (2)
11.Architectural design
12.Environmental impact assessment of projects
13.Flat area and remote sensing
14.Mineral resources
15.Pollution and environmental control
16. Sustainable energy systems
17.Project resource management
18. Environmental Pollution Control Engineering
19. Surface water hydrology and flood protection
20. Design of special water structures and major irrigation facilities ,design of private water facilities and major irrigation structures
21. Internal navigation and river docks
22. Environmental protection engineering
23. Water Resources Management
24. Groundwater Geology.
25.Disposal of mining water
26.Ventilation design
27.Processing the waste from raw material processing plants
28. Smart cities
29.Rural development
30. Sustainable Urban Development
31. Urban Sustainable Development Land use planning
32.Environmental information systems
33.The environmental impact of projects
34. Environmental impact of projects Preservation and urban development
35.Urban economy
36.Urban geography
37.Urban management
38.Housing economics
39.Housing studies
40.Housing and Urban Economy
41. Land Use and Road Planning Land use and road planning
42.Renewable energy systems
43.Water treatment and desalination
44. Natural Resources, their Management natural resources and their management
45. Irrigation engineering and the design of its facilities

COLLEGE OF EDUCATION

There are (56) courses related to the environment and sustainability studied by students from different departments at the undergraduate level out of total of (1200) courses; they are as follows:

1.Education for Sustainable Development
2.Social issues
3.Earth and Space Sciences
4.Astronomy
5.Integration of people with disabilities
6.Applications of science in life
7.Recent trends in ensuring educational quality
8.Educational quality assurance trends Educational technology and digital transformation
9.Information and communication technologies in learning and research
10.Action research
11.Physical geography and environmental geography
12.The human geography of Egypt
13.Geography of Assiut
14.Environmental education
15.Principles of maps
16.The Geography of Economic Development in Upper Egypt
17.Climatology, biogeography, and meteorology
18.Digital geography
19.Geography of Africa and the Nile Basin
20. Development of geographical and historical life skills. Developing life geography and history skills
21. Development of climate, water, and tourism awareness
23.Geography of the Arab World and Geography of the Islamic World
24.Volunteering and civil society
25. Plant environment Vegetation environment
26.Environmental Sciences
27.Environmental pollution
28. Algae and plant classification and applications of biology in life
29.Applications of nano science
30.Climate change
31.Weather forecasts
32.Applications of chemistry in life
33.Earth materials
34.Applications of physics in life
35.Natural products chemistry
36.Physical geography
37.Human geography
38.Agricultural geography
39.Geography of freshwater
40.Climatic and biogeography

41.Geography of seas and oceans
42.Climate change
43.Weather forecasts
44.New renewable energies
45. Cosmic rays and elementary particles
46.Philosophy of natural sciences
47.Next Generation Science Standards
48.Applications of Nano science
49.Green chemistry
50.Genetic engineering
51.Plant tissue culture
52. Aquatic Biology ,Aquatic organisms
53.Plant Physiology (1)
54.Plant Physiology (2)
55.Space and celestial mechanics
56.Computer maintenance

COLLEGE OF SCIENCE

There are (82) courses related to the environment and sustainability studied by students from different departments at the undergraduate level out of total of (691) courses; they are as follows:

1- Environmental Physics
2- Radiological Physics and Radiological Pollution – Radiation Protection
3- Biochemistry and Natural Products
4- Petroleum Chemistry and Chromatography
5- Green Environmental Organic Chemistry
6- Nuclear and Radiochemistry
7- Environmental Analytical Chemistry
8- Industrial Chemistry
9- Economic geology
10- Geology of Life
10- Petroleum Geology
11- Environmental Geology
12- Marine Geology
14- Paleoecology
15- Hydrology
16- Seismology of earthquakes and seismic exploration
17- The geology of Egypt and petroleum potential
18 - Fundamentals of Health and Safety
19- Basics of Water Geology and Water Geochemistry
20- Geological hazards and disasters
21- Economic plant

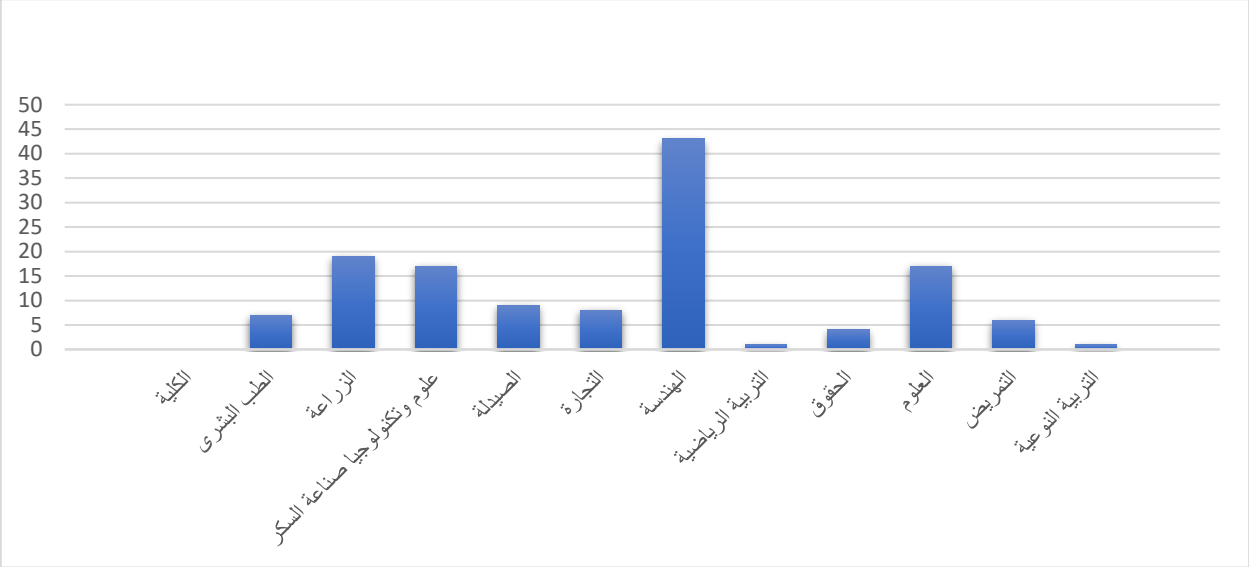
22- Plant Ecology
23- Medicinal Plants
24- Plant Geophysics
25 – Plant Communities
26- Algal environment
27- Herbal medicines
28- Soil Microbiology
29- Food Microbiology
30 - Biological Resistance
31 - Immunity
32- Animal Environment
33- Fish Biology
34- Fish farming
35- Water environment
36- Medical insects
37- Birds
38- Mammals
39- Hematology
40 Fisheries
41- Fish stock assessment
42 Biological control
43- Aquatic insects
44- Aquatic invertebrates
45- Aquatic vertebrates
46- Cell biology and fish embryology
47- Fish Physiology
48- Fish Ecology
49 - Aquatic ecosystems
50 - Dynamics of fish schools
51- Stock assessment and fishery management
52- Commercial and recreational fisheries
53- Fishery products and marketing
54- Techniques and methods in fish biology
55- Fishing methods and equipment
56- Design of fish farms and their types
57- Economics of fisheries
58- Fish Production and Nutrition
59- Fish parasites and diseases
60- Fundamentals of Fish Breeding and Hatching
61 - Management of fish hatcheries
62- Aquaculture
63- Water quality standards
64- Biology of water pollution
65- Freshwater Science
66- Marine Biology

67- Fisheries Oceanography
68- Fish Geology
69- Aquatic toxicology
70- Malacology
71- Environmental awareness for fisheries
72- Biology and cultivation of tilapia
73- Biology and cultivation of African catfish
74- Cultivation in wastewater
75- Aquaculture in wastewater
76- Aquatic crustaceans
77- Aquatic biodiversity
78- Plankton and benthos
79- Comparative Anatomy of Vertebrates
80 - Field fisheries project
81 - Field Hatchery Project
82- Fish Biology

SECONDLY: GRADUATE STUDIES PHASE:

A table showing the number of courses related to the environment and sustainability at the graduate level.

GRADUATE STUDIES PHASE	
The college	**The number of courses related to the environment and sustainability**
Human medicine	**7**
Agriculture	**19**
Sugar industry science and technology	**17**
Pharmacy	**9**
Commerce	**8**
Engineering	**44**
Physical education	**1**
Law	**4**
Sciences	**18**
Nursing	**6**
Specialized education	**1**



A table showing a detailed statement of the graduate courses.

	College	Course	Code	Diploma - Master's - Doctorate	Department
1	Human medicine	The ethical and legal aspects of medical practice and scientific research	FAC210C	Master's - PhD	A course required for all departments
2		Quality assurance in clinical practice	FAC200H		
3		Quality assurance in medical education	FAC200G		
4		Basics of Environmental Health	COM209B	Master's - PhD	Department of Public Health and Community Medicine
5		Primary healthcare and an introduction to family medicine	COM209E		

6		Occupational health			
7		Monitoring the quality of dairy products			
8	Agriculture	Genetic-environmental interaction in poultry breeding	ل ب ن 6012	Master's - PhD	Dairy section
9		Environmental factors in vegetable production	أ ن و 6024		Poultry Production Department
10		Environmental factors in vegetable flowering	خ ض ر 5013		Vegetable production specialization
11		Quality factors in vegetables	خ ض ر 6012		
12		Study of quality in crops	خ ض ر 6020		
13		Crop environment	م ح ص 5013		Specialization in Crop Production and Physiology
14		Green spaces and soil data	م ح ص 5012		
15		Environment and behavior of animal pests	ز ي ن 6011		Specialization in Ornamental Plants and Landscape Design
16		Health education and communication skills	و ق ن 5036		Specialization in agricultural animal pests
17		Environmental pollution with pesticides	و ق ن 6024		Department of Plant Protection
18		Modern irrigation trends	ا ر ض 5015		Land and Water Specialization Department of
19		Water	ا ر ض 6022		

		suitability and analysis			Public Health and Community Medicine
20		Soil tests and plant analysis	ا ر ض 6024		
21		Environmental control of land and water pollution	أ ر ض 6028		
22		Food environments	أ ر ض 6027		
23		Economics of Agricultural Production - Advanced	أ ق ز 5017	Master's - PhD	Agricultural Economics major
24		Economics of land reclamation and cultivation	أ ق ز 6012		
25		Environmental economics	أ ق ز 6017		
26		Agricultural economic development	أ ق ز 6023		
27		Planning and Agricultural Economic Development - Advanced	أ ق ز 6025		
28	Science and Technology of Sugar Production	Reducing pollution in sugar factories	س ه 5203	Diploma	The Engineering Department
29		Renewable energy sources	س ه 5210		
30		Industrial waste management	س ه 5407		
31		Environmental chemistry	س ك 5110	Diploma	The Chemistry Department (Shared among all departments)
32		Quality control in sugar factories	س ك 54210		
33		Management of industrial waste	س ه 5407		

34		Water and soil pollution	5308 س ز	Diploma	
35		Environmental chemistry	5101 ب ى	Diploma	Agricultural division
36		Environmental economics	5104 ب ى		
37		Air pollution and climate change	5110 ب ي		
38		Biodiversity	5112 ب ى		
39		Environmental laws	5106 ب ي		
40		Environmental management systems	5206 ب ي		
41		Environmental pollution of water and soil	5207 ب ي		
42		Environmental geology	5210 ب ي		
43		Environmental management and planning	5310 ب ي		
44		Waterfall management	5309 ب ي		
45	Pharmacy	Packaging and quality control for cosmetics	DPT- 203	Diploma	Cosmetics
46		Methods of water analysis	DAC-203	Diploma	Environmental analysis (Common to all departments)
47		Laboratory safety and waste disposal	DAC-204		
48		Analysis of pesticide and preservative residues in food	DAC-206		
49		Air pollution	DAC-207		
50		Laboratory safety and waste disposal	DAC-204	Diploma	
51		Pharmacy	DPP-214	Diploma	Automated

		information systems and quality assurance			analysis and pharmaceutical control
52		Laboratory safety and waste disposal	MAC-303	Master's degree	Hospital Pharmacy
53		Monitoring the quality of herbal products	PPG-402	Doctorate	Diploma
54	Commerce	Resource management in health services	02525	Diploma	
55		Quality control of health services	02526		
56		Total Quality Management	02632	Master of Science in Production and Operations Management	Diploma
57		Production planning and control	02633		
58		Quality control	02634		
59		Problems of production and environmental systems	02635		
60		Production systems and environmental problems	02731	PhD	
61		Economic development	03502	Diploma	
62		Environmental economics	03505		
63	Engineering	Environmental and sanitary engineering	0201411	Diploma	
64		Soil Mechanics and Geotechnical Engineering	0201408		
65		Methods of controlling	0201464	Diploma	Diploma

		environmental pollution			
66		Water supply and sewage	0201465		
67		Design of irrigation and drainage systems	0201513	Diploma Diploma Master's	
68		Surface water hydrology	0201514		
69		Water resources system and water storage	0201517		
70		Computer applications on groundwater	0201520		
71		Land reclamation and salinity balance	0201522		
72		Water and soil pollution	0201526	Diploma Diploma	Master's degree
73		Air and noise pollution	0201527		
74		Methods for disposing of hazardous waste	0201529		
75		Controlling environmental pollution	0201531		
76		Food pollution	0201532		
77		Environmental systems and regulations	0201536		
78		Hydrology of groundwater	0201616	Diploma Master's	
79		The relationship between soil, water, and plants	0201618		

80		Environmental assessment of water projects	0201620		
81		Advanced studies in sanitary and environmental engineering	0201622		Master's degree Diploma
82		Advanced Drinking Water Engineering	0201623		
83		Environmental laws and regulations	0201631		
84		Major water facilities	0201675	PhD	Diploma
85		Computer applications in the field of water flow	0201678		
86		Management and economics of water resources	0201679		
87		Groundwater	0201680		
88		Advanced studies in sanitary and environmental engineering	0201681	PhD	
89		Air and noise pollution	0201683		
90		Water and soil pollution	0201684		
91		Control of environmental pollution	0201685		
92		Advanced technology in water treatment	0201686		
93		Environmental laws	0204515	Diploma	

94		Environmental laws	0204556		Diploma
95		Geology of groundwater	0204610	Master	
96		Recycling and treating waste	0204626		
97		Water quality and purification	0204627		
98		Air pollution	0204628		
99		Environmental measurements and analyses	0204706		
100		Geographic Information Systems in Environmental Studies	0204708		
101		Environmental design	205503	Diploma	
102		Environmental and climate engineering	205505		
103		Environmental control	0205614	Master	
104		Environmental planning	205529	Diploma	Master's degree
105		Environmental pollution	205536		
106	Physical education	Safety and environmental health	ك / ع 723	PhD	
107	Law	Legal protection of the air and water	ت. ص 502	Master	
108		Law on Public Hygiene and Protection of Terrestrial Environment	ت.ص 504		
109		Administrative and tax law for the	ت.ص 510		

		environment			
110		Environmental procedures and lawsuits	511 ت. ص		
111	science	Environmental health community	MD 508	Diploma	Professional Diploma in Biochemistry
112		Environmental Forensics 1	C 533	Diploma	Professional Diploma in Applied Forensics Chemistry
113		Environmental Forensics 2	C 540		
114		Environmental Organic Chemistry	C 563	Diploma	Professional Diploma in Applied Organic Chemistry
115		Environmental Analysis	C 604	Master	M. Sc. Degree Analytical Chemistry
116		Water Analysis	C 579	Diploma	Professional Diploma in Environmental Analytical Chemistry
117		Problem and activity-Oriented Environmental Analysis	C 574		
118		Laboratory work, Environmental Analysis	C 576		
119		Environmental Metallo toxicology	Md 531	Diploma	Professional Diploma in Applied Medical Geology
120		Water and Health	Md 533		
121		Environmental Geochemistry	G 530		
122		Environmental Sedimentology	G 621	Master	M. Sc. Degree in petroleum Geology
123		Environmental Impact Risk Assessment	G 548	Diploma	Professional Diploma in Applied

					Environmental Geosciencs
124		Environmental Impact Assessment	G 736	PhD	Ph.D. Degree in hydrogeology
125		Environmental Microbiology	B 511	Diploma	Professional Diploma in Applied Microbiology
126		Environmental pollution	B 607	Master	M. Sc. Degree of science in plant physiology
127		Environmental Stresses	B 706	PhD	Ph.D. Degree in plant physiology
128	Nursing	The impact of the environment on human health	Elect 2502	Diploma	The professional diploma in psychiatric and mental health nursing and addiction nursing
129		The environment and health	Elect 4501	Diploma	The professional diploma in neonatal nursing and pediatric surgical nursing
130		Environmental health	Supp 5503	Diploma	The professional diploma in family health nursing
131		School environmental health	Supp 5509	Diploma	The professional diploma in school health nursing
132		Occupational environmental	Supp 5518	Diploma	The professional

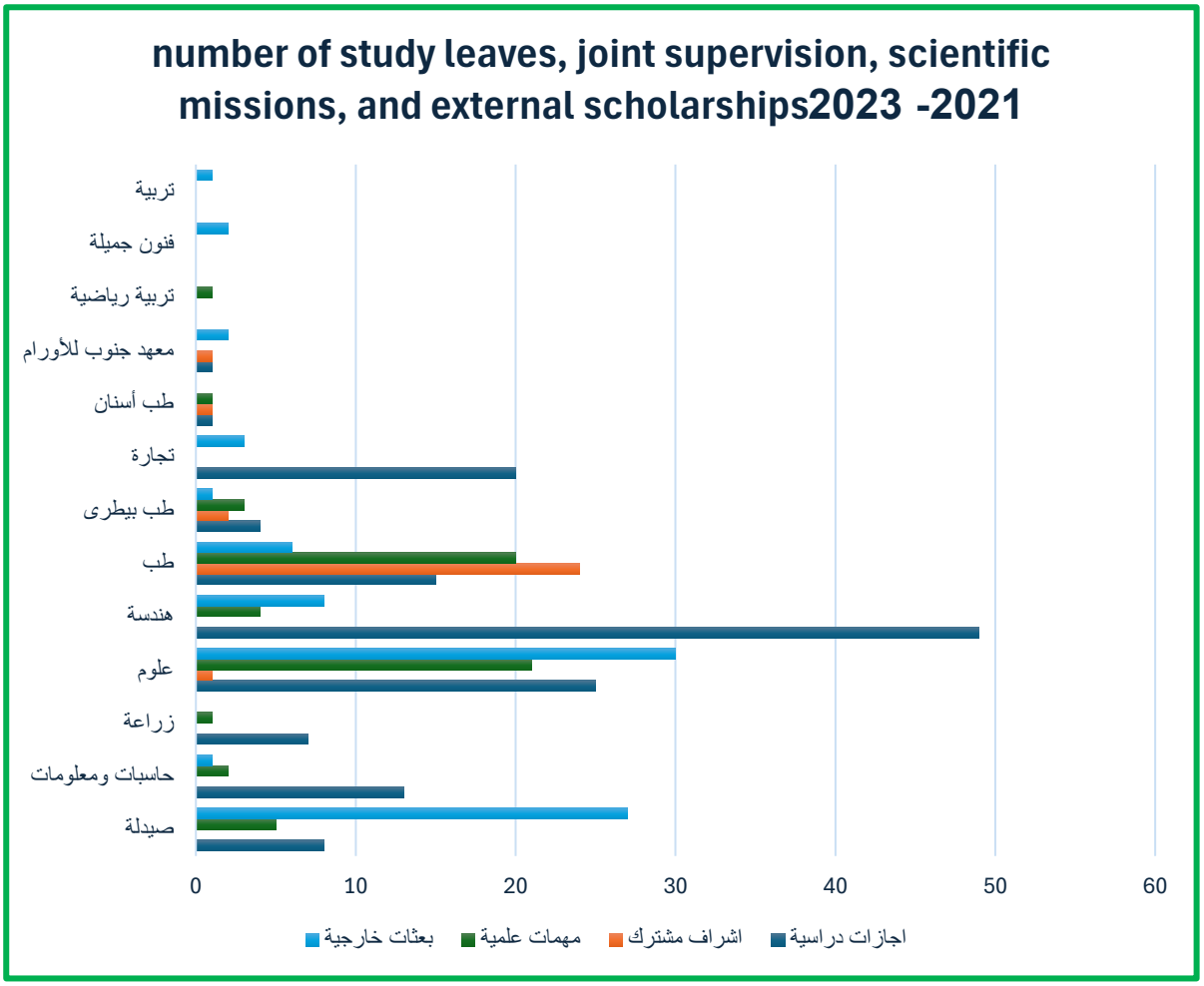
		health			**diploma in occupational health nursing**
133		**The healthy environment for the elderly**	**Elect 6503**	**Diploma**	**The professional diploma in geriatric nursing**
134	**Quality education**	**Art in the environment and society**	**2075**	**PhD**	**Music education**

6-2 Total number of scholarships and research grants obtained over the past three years and their funding:

The university offers a number of scholarships that vary between study leaves, joint supervision, scientific missions, and external scholarships, as detailed in the following table:

Total table (Study leaves/Joint supervision/Scientific missions/External scholarships)

The college	Study leaves	Co-supervision	Scientific missions	External scholarships
Pharmacy	8	-	5	27
Computers and Information	13	-	2	1
Agriculture	7	-	1	-
Sciences	25	1	21	30
Engineering	49	-	4	8
Medicine	15	24	20	6
Veterinary medicine	4	2	3	1
Commerce	20	-	-	3
Dentistry	1	1	1	-
South Institute for Tumors	1	1	-	2
Physical Education	-	-	1	-
Fine Arts	-	-	-	2
Education	-	-	-	1
Total	123	29	58	54
Overall total	264			



A form showing the total number of study leaves, joint supervision, scientific missions, and external scholarships.