University : Assuit
Country : Egypt
Web Address : www.aun.edu.eg

[6] Education and Research (ED)

[6.1] Number of Courses/Subjects Related to Sustainability Offered

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*		Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
Faculty of Medicine - Assiut University					
1	**Ethical and legal aspects of medical practice and scientific research**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.	7	**The patient, the doctor, and society**	ensure healthy lifestyles and well-being for all at all ages.
2	**Quality assurance in clinical practice**	ensure healthy lifestyles and well-being for all at all ages.	8	**Mechanisms and principles of diseases and treatment**	ensure healthy lifestyles and well-being for all at all ages.
3	**Quality assurance in medical education**	ensure healthy lifestyles and well-being for all at all ages.	9	**Infection and immunity**	ensure healthy lifestyles and well-being for all at all ages.
4	**Environmental Health Basics**	ensure healthy lifestyles and well-being for all at all ages.	10	**Health and disease in society**	ensure healthy lifestyles and well-being for all at all ages.
5	**Primary Health Care and Introduction to Family Medicine**	ensure healthy lifestyles and well-being for all at all ages.	11	**Research and Discovery/Scientific Project**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
6	**Health Education and Communication Skills**	ensure healthy lifestyles and well-being for all at all ages.	12	**Occupational health**	ensure healthy lifestyles and well-being for all at all ages.
	Faculty of Agriculture - Assiut University				
1	**Economics of modern agricultural technology**	promote sustained, inclusive and sustainable economic growth.	25	**Low-Water Plant Production.**	ensure the availability and sustainable management of water and promote sustained, inclusive, and sustainable economic growth.
2	**Applications of biotechnology and nanotechnology in animal production**	ensure sustainable consumption and production patterns.	26	**Wastewater Reuse in Agriculture.**	ensure the availability and sustainable management of water and sanitation for all.
3	**Sugar Technology**	ensure sustainable consumption and production patterns.	27	**Waste Recycling Technology.**	ensure that everyone enjoys healthy lifestyles.
4	**Food Quality and Safety**	ensure food security and improved nutrition.	28	**Human Nutrition**	ensure sustainable consumption and production patterns.
5	**Dairy Product Quality Control**	ensure food security and improved nutrition.	29	**Climate Change and Sustainability.**	ensure urgent action is taken to address climate change and its impacts.
6	**Genetic-Environmental Interaction in Poultry Farming**	ensure sustainable consumption and production patterns.	30	**Fundamentals of Agricultural Economics.**	promote sustained, inclusive, and sustainable economic growth.

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
7	**Environmental Factors in Vegetable Production**	ensure sustainable consumption and production patterns.		31	**Community Issues.**	ensure food security, improved nutrition, and the promotion of sustainable agriculture.
8	**Environmental Factors in Vegetable Flowering**	ensure sustainable consumption and production patterns.		32	**Fundamentals of Animal and Poultry Production.**	ensure sustainable consumption and production patterns.
9	**Quality Factors in Vegetables**	ensure sustainable consumption and production patterns.		33	**Land Fundamentals.**	ensure halting and reversing land degradation and halting biodiversity loss.
10	**Quality Studies in Crops**	ensure sustainable consumption and production patterns.		34	**Pest Control Fundamentals.**	ensure that agricultural land degradation is halted.
11	**Crop Environment**	ensure sustainable consumption and production patterns.		35	**Dairy Production.**	ensure sustainable consumption and production patterns.
12	**Green Spaces and Soil Data**	ensure sustainable consumption and production patterns.		36	**Food Industry Fundamentals.**	ensure sustainable consumption and production patterns
13	**Animal Pest Ecology and Behavior**	ensure sustainable consumption and production patterns.		37	**Fundamentals of Rural Sociology and Agricultural Extension.**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
14	**Environmental Pollution by Pesticides**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		38	**Community Service and Environmental Development.**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
15	**Modern Irrigation Trends**	ensure the availability and sustainable management of water and sanitation for all.		39	**Life Skills.**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
16	**Water Suitability and Analysis**	ensure the availability and sustainable management of water and sanitation for all.		40	**Management and Operation of Modern Irrigation Systems in Desert Lands**	ensure the construction of resilient infrastructure, promote inclusive and sustainable industrialization, and encourage innovation.
17	**Soil Testing and Plant Analysis**	ensure food security, improved nutrition, and the promotion of sustainable agriculture.		41	**Soil Minerals**	ensure sustainable consumption and production patterns.
18	**Environmental Control of Land and Water Pollution**	reduce pollution rates and limit activities that cause environmental pollution by moving towards cleaner energy.		42	**Soil fertility and plant nutrition**	ensure sustainable consumption and production patterns.
19	**Food Environments**	ensure sustainable consumption and production patterns.		43	**Irrigation development and rational water use**	promote sustained, inclusive and sustainable economic growth.
20	**Agricultural Production Economics - Advanced**	promote sustained, inclusive and sustainable economic growth.		44	**Organic agriculture and bio fertilization**	ensure sustainable consumption and production patterns.
21	**Economics of Land**	promote sustained,		45	**Land reclamation**	ensure sustainable

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	Reclamation and Cultivation	inclusive and sustainable economic growth.				consumption and production patterns.
22	**Environmental Economics**	promote sustained, inclusive and sustainable economic growth.		**46**	**Groundwater reservoirs in modern lands**	ensure the availability and sustainable management of water and sanitation for all.
23	**Agricultural Economic Development**	promote sustained, inclusive and sustainable economic growth.		**47**	**Pollution of soil and water and their treatment**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
24	**Advanced Agricultural Economic Planning and Development**	promote sustained, inclusive and sustainable economic growth.		**48**	**Land and water resource management**	ensure the availability and sustainable management of water and sanitation for all.
	Faculty of Engineering – Assiut University					
1	**Irrigation Engineering and Design of its Facilities**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation, and ensure the availability and sustainable management of water.		45	**Water, Climate, and Energy Issues**	ensure the availability and sustainable management of water, take urgent action to address climate change and its impacts, and ensure access to modern, reliable, and sustainable energy.
2	**Sanitary and Environmental Engineering**	preserve economic and environmental resources from their harmful effects.		46	**Irrigation and Drainage Engineering**	for ensuring availability and sustainable management of water and sanitation for all.
3	**Soil Mechanics and Geotechnical Engineering**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		47	**Soil Mechanics**	preserve economic and environmental resources from their harmful effects.
4	**Environmental Pollution Control Methods**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		48	**Foundation on Problematic Soils**	preserve economic and environmental resources from their harmful effects.
5	**Water Supply and Sanitation**	ensure the availability and sustainable management of water and sanitation for all.		49	**Topographic Surveying**	preserve economic and environmental resources from their harmful effects.
6	**Irrigation and Drainage System Design**	ensure the availability and sustainable management of water and sanitation for all.		50	**Water, Energy, and Climate Issues**	ensure the availability and sustainable management of water, take urgent action to address climate change and its impacts, and ensure access to modern, reliable, and sustainable energy.
7	**Surface Water Hydrology**	ensure the availability and sustainable management of water.		51	**Irrigation Facilities Design**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation, and ensure the availability and sustainable management of water.
8	**Water Resources and**	ensure the availability and		52	**Drinking Water**	for ensuring availability and

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
	Water Storage Systems	sustainable management of water.			**Supply Engineering**	sustainable management of water.
9	**Computer Applications to Groundwater**	ensure the availability and sustainable management of water.		53	**Sanitary and Environmental Engineering**	preserve economic and environmental resources from their harmful effects.
10	**Land Reclamation and Salt Balance**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		54	**Irrigation Facilities Design**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation, and ensure the availability.
11	**Water and Soil Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		55	**Architectural Construction**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
12	**Air and Noise Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		56	**Environmental Impact Assessment of Projects**	preserve economic and environmental resources from their harmful effects.
13	**Hazardous Waste Disposal Methods**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		57	**Surveying and Remote Sensing**	preserve economic and environmental resources from their harmful effects.
14	**Environmental Pollution Control**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		58	**Mineral Resources**	ensure sustainable consumption and production patterns.
15	**Food Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		59	**Pollution and Environmental Control**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
16	**Environmental Systems and Legislation**	preserve economic and environmental resources from their harmful effects.		60	**Sustainable Energy Systems**	ensure that everyone has affordable, reliable, and sustainable access to modern energy.
17	**Groundwater Hydrology**	ensure the availability and sustainable management of water.		61	**Project Resource Management**	preserve economic and environmental resources from their harmful effects.
18	**Soil, Water, and Plant Relationships**	ensure the availability and sustainable management of water.		62	**Environmental Pollution Control Engineering**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
19	**Environmental Assessment**	ensure the availability and		63	**Surface Water**	ensuring availability and

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
	of Water Projects	sustainable management of water.			**Hydrology and Flood Protection**	sustainable management of water .
20	**Advanced Studies in Sanitary Engineering and the Environment**	preserve economic and environmental resources from their harmful effects.		64	**Design of Private Water Facilities and Major Irrigation Facilities**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation, and ensure the availability.
21	**Advanced Drinking Water Engineering**	ensure the availability and sustainable management of water.		65	**Inland Navigation and River Docks**	the conservation and sustainable use of marine resources to achieve sustainable development.
22	**Environmental Laws and Legislation**	preserve economic and environmental resources from their harmful effects.		66	**Environmental Protection Engineering**	reduce pollution ratesand limit activities that cause environmental pollution by moving towards cleaner energy.
23	**Major Water Facilities**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		67	**Water Resources Management**	for ensuring availability and sustainable management of water .
24	**Computer Applications in Water Flow**	ensure the availability and sustainable management of water.		68	**Groundwater Geology**	for ensuring availability and sustainable management of water.
25	**Water Resources Management and Economics**	ensure the availability and sustainable management of water.		69	**Mining Drainage**	for ensuring availability and sustainable management of water.
26	**Groundwater**	ensure the availability and sustainable management of water.		70	**Ventilation Design**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
27	**Advanced Studies in Sanitary and Environmental Engineering**	preserve economic and environmental resources from their harmful effects.		71	**Ore Processing Plant Waste Treatment**	ensure that everyone enjoys healthy lifestyles.
28	**Air and Noise Pollution**	reduce pollution rates, improve air quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		72	**Smart Cities**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
29	**Water and Soil Pollution**	reduce pollution rates, improve water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		73	**Rural Development**	preserve economic and environmental resources from their harmful effects.
30	**Environmental Pollution Control**	reduce pollution rates and limit activities that cause environmental pollution by moving towards cleaner energy.		74	**Sustainable Urban Development**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
31	**Advanced Technology in Water Treatment**	ensure the availability and sustainable management of water.		75	**Land Use Planning**	preserve economic and environmental resources from their harmful effects.
32	**Environmental Laws**	reduce pollution rates and limit activities that cause		76	**Environmental Information**	preserve economic and environmental resources

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		environmental pollution by moving towards cleaner energy.			**Systems**	from their harmful effects.
33	**Environmental Laws**	improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		77	**Environmental Impact of Projects**	preserve economic and environmental resources from their harmful effects.
34	**Groundwater Geology**	ensure the availability and sustainable management of water.		78	**Urban Conservation and Upgrading**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
35	**Waste Recycling and Treatment**	reduce pollution rates and limit activities that cause environmental pollution by moving towards cleaner energy.		79	**Urban Economics**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.
36	**Water Quality and Purification**	ensure the availability and sustainable management of water.		80	**Urban Geography**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.
37	**Air Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		81	**Cities Management**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.
38	**Environmental Measurements and Analysis**	preserve economic and environmental resources from their harmful effects.		82	**Housing Economics**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.
39	**Geographic Information Systems in Studies Environmental**	preserve economic and environmental resources from their harmful effects.		83	**Housing Studies**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.
40	**Environmental Design**	preserve economic and environmental resources from their harmful effects.		84	**Housing and Urban Economics**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.
41	**Environmental and Climate Engineering**	protection from the effects of climate change, and the preservation of economic and environmental		85	**Land Use and Road Planning**	build resilient infrastructure, promote inclusive and sustainable industrialization, encourage innovation.

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		resources from its harmful effects.				
42	**Environmental Control**	preserve economic and environmental resources from their harmful effects.		86	**Renewable Energy Systems**	as a requirement ofto ensure that everyone has affordable, reliable, and sustainable access to modern energy.
43	**Environmental Planning**	preserve economic and environmental resources from their harmful effects.		87	**Water Treatment and Desalination**	for ensuring availability and sustainable management of water.
44	**Environmental Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		88	**Natural Resources and Management**	conservation of forests, wetlands, mountains, marine and coastal ecosystems, prevention of desertification, and development of nature reserves.
	Faculty of Education – Assiut University					
1	**Applications of Biology in Life**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.		27	**Education for Sustainable Development**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
2	**Applications of Nano science**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.		28	**Societal Issues**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
3	**Climate Change**	ensure urgent action is taken to address climate change and its impacts.		29	**Earth, Space, and Astronomy Sciences**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
4	**Applications of Chemistry in Life**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.		30	**Integration People with Special Needs**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
5	**Earth Materials**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		31	**Applications of Science in Life**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
6	**Applications of Physics in Life**	ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.		32	**Modern Trends in Ensuring Educational Quality Educational**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
7	**Chemistry of Natural Products**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		33	**Technology and Digital Transformation**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
8	**Physical Geography**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		34	**Information and Communication Technologies in Learning and Research**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
9	**Agricultural Geography**	Protect, restore and promote sustainable use of terrestrial ecosystems, and		35	**Action Research**	ensure inclusive and equitable quality education for all and promote lifelong

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		halt biodiversity loss.				learning opportunities for all.
10	**Freshwater Geography**	ensuring availability and sustainable management of water.		36	**Physical Geography and Geography of Natural Environments**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.
11	**Climatic and Biogeography**	ensure urgent action is taken to address climate change and its impacts.		37	**Human Geography of Egypt**	provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.
12	**Geography of Seas and Oceans**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		38	**Assiut Geography**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.
13	**Climate Change**	ensure urgent action is taken to address climate change and its impacts.		39	**Environmental Education**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
14	**Meteorology**	ensure urgent action is taken to address climate change and its impacts.		40	**Principles of Maps**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
15	**New and Renewable Energies**	ensure that everyone has affordable, reliable, and sustainable access to modern energy.		41	**Geography of Economic Development in Upper Egypt**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.
16	**Cosmic Rays and Elementary**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		42	**Climatic, Biogeography, and Meteorology**	ensure urgent action is taken to address climate change and its impacts.
17	**Particles Philosophy of Natural Sciences**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		43	**Digital Geography**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.
18	**Next Generation Science Standards**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.		44	**Geography of Africa and the Nile Basin**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.
19	**Nano science Applications**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.		45	**Developing Geographical and Life History Skills**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
20	**Green Chemistry**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		46	**Developing Climate, Water, and Tourism Awareness**	ensure urgent action is taken to address climate change and its impacts.
21	**Genetic Engineering**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		47	**Geography of the Arab World and the Islamic World**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.

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22	**Plant Tissue Culture**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.			**Volunteer Work and Civil Society**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
23	**Aquaculture**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		48	**Plant Ecology**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
24	**Plant Physiology**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.		49	**Environmental Sciences**	included as a curriculum requirement to ensure that cities and human settlements are inclusive, safe, resilient, and sustainable.
25	**Space Mechanics and Astronomy**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.		50	**Environmental Pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
26	**Computer Maintenance**	ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all.		51	**Algae and Plant Classification**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.
	Faculty of Science – Assiut University					
1	**Environmental Physics**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		50	**Stock Assessment and Fisheries Management**	ensure sustainable consumption and production patterns.
2	**Radiation Physics and Radioactive Contamination - Radiation Protection**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		51	**Commercial and Recreational Fisheries**	ensure sustainable consumption and production patterns.
3	**Biochemistry and Natural Products**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		52	**Fishery Products and Marketing**	ensure sustainable consumption and production patterns.
4	**Petroleum Chemistry and Chromatography**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		53	**Techniques and Methods in Fish Biology**	ensure sustainable consumption and production patterns.
5	**Green Organic Chemistry**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		54	**Fishing Methods and Equipment**	ensure sustainable consumption and production patterns.
6	**Nuclear and radiological chemistry**	spread awareness of the importance of		55	**Fish Farm Design and Types**	ensure sustainable consumption and production

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		environmental to adopt 5responsible environmental behaviors.				patterns.
7	**Environmental Analytical Chemistry**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		56	**Fishery Economics**	ensure sustainable consumption and production patterns.
8	**industrial chemistry**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		57	**Fish Production and Nutrition**	ensure sustainable consumption and production patterns.
9	**Economic Geology**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		58	**Fish Parasites and Diseases**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
10	**Geology of Life**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		59	**Fish Reproduction and Hatching Principles**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
11	**Petroleum Geology**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		60	**Fish Hatchery Management**	ensure sustainable consumption and production patterns.
12	**Environmental Geology**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		61	**Aquaculture**	ensure sustainable consumption and production patterns.
13	**Marine Geology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		62	**Water Quality Measures**	ensure the availability and sustainable management of water.
14	**Old neighborhood environment**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		63	**Water Pollution Biology**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
15	**Hydrology**	spread awareness of the importance of environmental to adopt responsible environmental behaviors.		64	**Freshwater Science**	ensure the availability and sustainable management of water.
16	**Seismic science and seismic exploration**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		65	**Marine Biology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
17	**Egypt's geology and petroleum potential**	spread awareness of the importance of environmental to adopt		66	**Fisheries Climatology**	ensure urgent action is taken to address climate change and its impacts

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		responsible environmental behaviors.				
18	**Health and Safety Basics**	ensure healthy lifestyles and well-being for all at all ages.		67	**Fish Geoscience**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
19	**Hydrogeology and Water Geochemistry Basics**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		68	**Aquatic Toxicology**	ensure healthy lifestyles and well-being for all at all ages.
20	**Geological hazards and disasters**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		69	**Malacology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
21	**economic plant**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		70	**Fisheries Environmental Education**	ensure halting biodiversity loss.
22	**Plant ecology**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		71	**Tilapia Biology and Farming**	ensure sustainable consumption and production patterns.
23	**medicinal plants**	ensure healthy lifestyles and well-being for all at all ages.		72	**African Catfish Biology and Farming**	ensure sustainable consumption and production patterns.
24	**Plant geophysics**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		73	**Wastewater Excretion**	ensure sustainable consumption and production patterns.
25	**Plant societies**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		74	**Aquatic Crustaceans**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
26	**Algal environment**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		75	**Aquatic Biodiversity**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.

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27	**herbal medicines**	ensure healthy lifestyles and well-being for all at all ages.			**Plankton and Benthos**	ensure halting biodiversity loss.
28	**Soil microbiology**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		76	**Comparative Anatomy of Vertebrates**	ensure halting biodiversity loss.
29	**Food microbiology**	Ensure food security and improved nutrition.		77	**Field Fisheries Project**	ensure sustainable consumption and production patterns.
30	**biological resistance**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		78	**Field Hatchery Project**	ensure sustainable consumption and production patterns.
31	**immunology**	ensure healthy lifestyles and well-being for all at all ages.		79	**Fish Biology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
32	**animal environment**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors.		80	**Environmental health community**	ensure healthy lifestyles and well-being for all at all ages
33	**fish biology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		81	**Environmental Forensics 1**	ensure halting biodiversity loss.
34	**Fish culture**	ensure sustainable consumption and production patterns.		82	**Environmental Forensics 2**	ensure halting biodiversity loss.
35	**Aquatic environment**	ensure the availability and sustainable management of water.		83	**Environmental Organic Chemistry**	ensure halting biodiversity loss.
36	**Medical entomology**	ensure halting biodiversity loss.		84	**Environmental Analysis**	ensure halting biodiversity loss.
37	**Birds**	halting biodiversity loss.		85	**Water Analysis**	ensure the availability and sustainable management of water.
38	**Mammals**	halting biodiversity loss.		86	**Problem and activity- Oriented Environmental Analysis**	ensure halting biodiversity loss
39	**Hematology**	ensure healthy lifestyles and well-being for all at all ages.		87	**Laboratory work, Environmental Analysis**	ensure halting biodiversity loss
40	**Fisheries**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		88	**Environmental Metallo toxicology**	ensure halting biodiversity loss

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
41	**Fish stock assessment**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.			**Water and Health**	ensure healthy lifestyles and well-being for all at all ages
42	**Biological control**	protecting, restoring, and promoting the sustainable use of terrestrial ecosystems, and halting biodiversity loss.		89	**Environmental Geochemistry**	ensure halting biodiversity loss
43	**Aquatic insects**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		90	**Environmental Sedimentology**	ensure halting biodiversity loss
44	**Aquatic invertebrates**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		91	**Environmental Impact Risk Assessment**	ensure halting biodiversity loss
45	**Aquatic Vertebrates**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		92	**Environmental Impact Assessment**	ensure halting biodiversity loss
46	**Fish Cytology and Embryology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		93	**Environmental Microbiology**	ensure halting biodiversity loss.
47	**Fish Physiology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		94	**Environmental pollution**	reduce pollution rates, and limit activities that cause environmental pollution by moving towards cleaner energy.
48	**Fish Ecology**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		95	**Environmental Stresses**	ensure halting biodiversity loss.
49	**Aquatic Ecosystems**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.		96	**Fish Population Dynamics**	conservation and sustainable use of oceans, seas and marine resources for sustainable development.
	Faculty of Sugar Industry Science and Technology - Assiut University					
1	**Pollution Reduction in Sugar Factories**	reduce pollution rates and limit activities that cause environmental pollution by moving towards cleaner energy.		9	**Biodiversity**	ensure stopping the loss of biodiversity.
2	**Renewable Energy**	ensure affordable, reliable, and sustainable access to modern energy for all.		10	**Environmental Laws**	ensure stopping the loss of biodiversity.
3	**Sources Industrial Waste Management**	ensure that everyone enjoys healthy lifestyles.		11	**Environmental Management Systems**	ensure stopping the loss of biodiversity.

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
4	**Environmental Chemistry**	spread awareness of the importance of environmental protection among individuals and institutions to adopt responsible environmental behaviors		12	**Environmental Pollution, Water and Soil**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.
5	**Quality Control in Sugar Factories**	ensure sustainable consumption and production patterns.		13	**Environmental Geology**	ensure stopping the loss of biodiversity.
6	**water and soil pollution**	reduce pollution rates, improve air and water quality, and limit activities that cause environmental pollution by moving towards cleaner energy.		14	**Environmental Management and Planning**	ensure stopping the loss of biodiversity.
7	**Environmental Economics**	ensure stopping the loss of biodiversity.		15	**Watershed management**	ensure the availability and sustainable management of water.
8	**Air Pollution and Climate Change**	reduce pollution rates, improve air and water quality, limit activities that cause environmental pollution by moving towards cleaner energy, and take urgent action to address climate change and its effects.		16		
	Faculty of Pharmacy - Assiut University					
1	**Packaging and Quality Control for Cosmetics**	ensure sustainable consumption and production patterns.		5	**Air Pollution**	reduce pollution rates, improve air and limit activities that cause environmental pollution by moving towards cleaner energy.
2	**Water Analysis Methods**	ensure the availability and sustainable management of water.		6	**Pharmaceutical Information Systems and Quality Assurance**	ensure sustainable consumption and production patterns.
3	**Laboratory Safety and Waste Disposal**	ensure stopping the loss of biodiversity and ensure healthy lifestyles and well-being.		7	**Quality Control of Medicinal Plant Preparations**	ensure sustainable consumption and production patterns.
4	**Analysis of Pesticide and Preservative Residues in Food**	ensure stopping the loss of biodiversity and ensure healthy lifestyles and well-being. and improved nutrition.		8		
	Faculty of Commerce - Assiut University					
1	**Resource Management in Healthcare Services**	ensure sustainable consumption and production patterns and ensure		6	**Production and Environmental Systems Problems**	ensure stopping the loss of biodiversity. And ensure sustainable consumption

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
		healthy lifestyles and well-being .				and production patterns
2	**Quality Control of Healthcare Services**	ensure sustainable consumption and production patterns and ensure healthy lifestyles and well-being .		7	**Production Systems and Environmental Problems**	ensure stopping the loss of biodiversity. And ensure sustainable consumption and production patterns.
3	**Total Quality Management**	ensure sustainable consumption and production patterns.		8	**Economic Development**	ensure sustainable consumption and production patterns.
4	**Production Planning and Control**	ensure sustainable consumption and production patterns.		9	**Environmental Economics**	ensure stopping the loss of biodiversity.
5	**Quality Control**	ensure sustainable consumption and production patterns.		10		
	Faculty of Physical Sciences - Assiut University					
1	**Safety and environmental health**	ensure healthy lifestyles and ensure stopping the loss of biodiversity.				2
	Faculty of Law - Assiut University					
1	**Legal Protection of Air and Water**	ensure stopping the loss of biodiversity. And improve water quality, and limit activities that cause environmental pollution.		3	**Administrative and Tax Environmental Law**	ensure stopping the loss of biodiversity.
2	**Public Hygiene and Wildlife Protection Law**	ensure stopping the loss of biodiversity. For ensure lifestyles and well-being.		4	**Environmental Procedures and Lawsuits**	ensure stopping the loss of biodiversity.
	Faculty of Nursing - Assiut University					
1	**The Impact of the Environment on Human Health**	ensure stopping the loss of biodiversity.		4	**School Environmental Health**	ensure healthy lifestyles and well-being for all at all ages.
2	**Environment and Health**	ensure healthy lifestyles and well-being for all at all ages.		5	**Occupational Environmental Health**	ensure healthy lifestyles and well-being for all at all ages.
3	**Environmental Health**	ensure healthy lifestyles and well-being for all at all ages.		6	**Environmental Health for the Elderly**	ensure healthy lifestyles and well-being for all at all ages.
	Faculty of Veterinary Medicine- Assiut University					
1	**Animal Nutrition and Clinical Nutrition**	focusing on efficiency, health, and resource optimization.		7	**Meat Quality**	through its impact on resource efficiency, food waste, consumer health, and the economic viability of livestock production.
2	**Animal and Poultry Health**	increasing efficiency, safeguarding food security, and protecting public health.		8	**Food Safety in Catering/Serving Establishments**	its practices directly minimize foodborne illness (Social/Health pillar) and drastically reduce food waste (Environmental/Economic pillars).
	Environmental Health and Pollution	it focuses directly on protecting the natural resources and ecological		9	**Awareness of Foodborne Allergens**	focusing on the Social/Health pillar, but also having significant

	Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*			Courses related to the environment and sustainability	Notes *The curse has been included as a requirement of the academic program to*
		systems essential for all life, including agriculture and human communities.				environmental and economic impacts.
3	**Dairy Health, Safety, and Technology**	ensuring the economic viability of the dairy sector, guaranteeing food safety for consumers, and promoting resource efficiency on the farm.		**10**	**Animal Waste**	3it represents both a major source of environmental pollution and a valuable, yet often mismanaged, resource for sustainable agriculture.
4	**(Veterinary Health Communication)**	it serves as the critical link for translating scientific knowledge into actionable practices across the "One Health" spectrum, influencing human, animal, and environmental outcomes.		**11**	**Control of Epidemic Diseases**	it protects the core resources (animals, humans) and economic stability necessary for a resilient global food system.
5	**Biosecurity in Animal and Poultry Farms**	Its relationship spans all three pillars—environmental, economic, and social/health.		**12**	**(Aquaculture Problems)**	Addressing these problems is essential for making aquaculture a truly sustainable source of protein.
6	**Fundamentals of Dairy Health and HACCP**	It lies in ensuring the safety, quality, and efficiency of the dairy supply chain, impacting all three pillars.				
	Faculty of Specific Education - Assiut University					
1	**Art in the Environment and Society**	Protect, restore and promote sustainable use of terrestrial ecosystems, and halt biodiversity loss.				2

Description:

Above is a list of the courses that have had changes approved through Assiut University Curriculum Refresh programme which aims to embed sustainability into all course and module content offered by Assiut University. The list also includes courses with sustainability already embedded

Total number of courses with sustainability embedded for courses running: **355**

Number of courses related to the environment and sustainability at the undergraduate and graduate levels

college	Undergraduate levels
Engineering	88
Education	51
Science	96
Pharmacy	8
Agriculture	48
Commerce	10
Nursing	6
College of Sugar Industry	16
Veterinary Medicine	14
Physical Education	2
Law	4
Medicine	12
Total	355