وزارة التعليم
Ministry of Education

المملكة العربية السعودية
Kingdom of Saudi Arabia

IAU
جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Environmental Courses in IAU

مقررات استدامة البيئة جامعة الإمام عبد الرحمن بن فيصل

Environmental Health Department

https://www.iau.edu.sa/en/colleges/college-of-public-health/departments/environmental-health-department

Vision

A leading program in the field of occupational health and safety.

Mission

Providing qualified specialist in education, research, and community service in the field of occupational health and safety.

Goal

The Academic Program of the Environmental Health Department is the Occupational Health and Safety Program, which generally aims to prepare an occupational health and safety specialist with the following skills:

- Familiarity with the concepts of occupational health and safety.
- Apply risk management principles to anticipate, identify, evaluate, and control the risks that employees are exposed to while performing their work
- Interpreting and applying local and international legislative requirements and best practices in the work environment
- Inspection and auditing of compliance with occupational health and safety standards in the work environment.
- Understanding and evaluating individual and group behavior to develop a healthy and safe work environment
- Understanding the organizational culture and its impact on the health and safety of the work environment
- Using effective communication, technology and modern applications appropriate for work assignments.
- Design, support and evaluation of occupational health and safety programs for various work environments

وزارة التعليم
Ministry of Education

المملكة العربية السعودية
Kingdom of Saudi Arabia

IAU
جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

| Environmental Courses | مقررات استدامة البيئة جامعة الإمام عبد الرحمن بن فيصل in IAU |

The Launch of Five Training Courses in AI and Road Modeling at IAU

https://www.iau.edu.sa/en/news/the-launch-of-five-training-courses-in-ai-and-road-modeling-at-iau

Five training courses in artificial intelligence (AI) for traffic safety have been launched in precedence to the launch of theSixth International Traffic Safety Forum and Exhibition, which will be inaugurated by His Royal Highness Prince Saud bin Nayef bin Abdulaziz Al Saud, Governor of the Eastern Province, tomorrow, Monday, and will continue for three days under the title: "The Usage of AI and Data Analysis to improve traffic movement and traffic safety on the road network."

The Chairman of the Saudi Traffic Safety Society, Dr. Abdul Hamid Al-Mojil, stated that these 5 training courses were launched at the College of Engineering at IAU, these courses tackled: artificial intelligence, big data, driving driverless cars, and two courses on simulation and modeling programs for the network and road traffic flow. The total number of people registered in these courses reached about 520 male and female trainees from all regions of the Kingdom, and from the concerned authorities in transportation and traffic and universities.

These courses target those who are interested and specialists in the field of traffic safety, engineers in secretariats, the Ministry of Transport, graduates, engineers, Sharqia Development Authority, road and traffic security, and engineering offices specialized in transportation and traffic engineering. The trainee receives a certificate of attendance after completing the training period, which lasts for one day. Dr. Al-Mojil noted that these courses came to enhance the trainee's role about artificial intelligence and the use of big data to improve safety and traffic flow. These courses will give the trainees the chance to attend the forum which will allow them to participate in the dialogue sessions and the accompanying workshops. Moreover, these courses are given by 9 specialists, 5 of them are from the Kingdom and 4 are from outside the Kingdom.

In addition, Dr. Al-Mojil pointed out that the forum that will start tomorrow, aims to introduce artificial intelligence and big data in the field of traffic safety, which has proven its success in global experiments, and to explore the recent developments in AI and big data technologies and their compatibility with the goals and elements of traffic safety. The forum includes scientific sessions and workshops of 32 Saudi and foreign speakers in the fields of security, electrical and civil engineering, transportation, roads, traffic safety, railways, air transport and aviation, artificial intelligence, maritime transport and shipping risks, automobile safety technology, industrial engineering, and international standards.

The forum discussions revolve around 4 main topics, the first of which is related to road traffic, and addresses the applications of artificial intelligence and big data and their role in improving real-time traffic control and congestion management, assessing the potential impact of technologies on driver assistance systems inside the car, the development in smart and electric vehicles and their impact on safety. The second topic discusses railway traffic, the smart monitoring system, the application of artificial intelligence to improve safety and inspect railways automatically, and assess the risks of train accidents, the smart train and safety technology. The third topic addresses maritime logistics and the uses of artificial intelligence in large operations, especially data transfer and automated shipping, and the opportunities and challenges emerging from logistical services. The fourth topic is about air transport, and the impact of artificial intelligence and big data on it, especially modern innovations related to aviation and air transport.

وزارة التعليم
Ministry of Education

المملكة العربية السعودية
Kingdom of Saudi Arabia

Environmental Courses | مقررات استدامة البيئة جامعة الإمام عبد الرحمن بن فيصل
in IAU

Bachelor of Science degree in Biology (Environmental Sciences)

https://www.iau.edu.sa/en/colleges/college-of-science/programs/bachelor-of-science-degree-in-biology-environmental-sciences

Vision

Excellence, leadership, and innovation in biological sciences locally, regionally and globally.

Mission

Providing a high-quality educational program to prepare innovative competent graduates in biological sciences and research that enhance the sustainable development of the Arabian Gulf region resources and provide solutions to community issues.

Mission and Vision Philosophy

In the Biology department we strive to prepare a scientifically competent graduates in the biological sciences. Our graduates are equipped with the knowledge and skills that would allow better serve the local, regional, and global community and solve its problem and ensure the sustainable development of its resources. The focus of the biology program on the Arabian Gulf because of its location on the Gulf shorelines. Furthermore, the Arabian is known of its unique terrestrial and marine biodiversity, the wealth of its oil, agricultural resources.

Values

Loyalty, Excellence, Teamwork, Transparency, Diversity, Creativity and Social Responsibility.

Goals

- Create an environment of quality education in biological sciences.
- Offer students the opportunity to gain knowledge and skills needed to engage into various Biology professions in industry, scientific inquiry, and foster life-long learning
- Build a culture for research and strengthen relationship with the community.

IAU
جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مقررات استدامة البيئة جامعة الإم
in IAU

Semester one

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
ZOOL 301	Vertebrates Biology	3	6	BIOL 204
GENTC 304	Principles of Genetics	3	6	BIOL 206
BOTNY 303	Plant Morphogenesis	3	6	BIOL 206
BIOCH 308	Biochemistry	3	6	CHEM 212

Semester two

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
ZOOL 302	General Entomology	3	6	BIOL 204
BOTNY 306	Plant Physiology	3	6	BIOCH 308
COMP 209	Introduction to Programming	3	4	-
BUS 381	Entrepreneurship	2	2	-

Semester three

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
ZOOL 305	Animal Physiology	3	6	ZOOL 301
MICRO 307	Microbiology	3	6	BIOL 204
GENTC 308	Molecular Biology	3	6	BIOCH 308- GENTC 304

Semester one

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
PARA 412	Foundations of Parasitology	3	6	ZOOL 302
BIOL 411	Ecosystem of Arab Gulf	3	6	BIOL 207
BIOL 405	Endocrinology	2	4.5	ZOOL 305

IAU

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مقررات استدام
in IAU

Semester three

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
BIOL 401	**Bioinformatics**	2	4.5	STAT 211- GENTC 308
BOTNY 415	**Plant Stress**	3	6	BOTNY 306
BIOL 425	**Desert Ecology**	3	6	BIOL 207
BIOL 421	**Environmental Impact Assessment**	2	3	BIOL 408
BOTNY 417	**Plant Taxonomy**	3	6	BOTNY 303

Semester one

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
BIOL 414	**Environmental Toxicology**	3	6	BIOL 207
BIOL 506	**Introduction to Environment Remote sensing**	2	4.5	-
ZOOL 507	**Fisheries & Aquaculture**	3	6	BIOL 411

Course ID	Course title	Credit hours	Contact hours	Pre-requisite
Group A				
BIOL 551	**Biogeography**	3	3	-
BIOL 402	**Developmental Biology**	4.50	6	ZOOL 301
MICRO 404	**Microbial Diversity**	4.50	6	MICRO 307
BIOL 406	**Forensic Biology**	3	6	ZOOL 302 - MICRO 307
BIOL 455	**Biomimicry**	3	3	-
BOTNY 556	**Flora of Saudi Arabia**	2	3	-
CHEM 203	**Bioanalytical Chemistry**	2	4.5	CHEM 203

وزارة التعليم
Ministry of Education

المملكة العربية السعودية
Kingdom of Saudi Arabia

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

مقررات استدامة
in IAU

Group B

BIOL 501	**Microtechniques**	3	4.5	BIOL 206
BIOL 564	**Bioremediation of pollutants**	2	3	MICRO 307 - CHEM 212
BIOL 561	**Environmental Economics**	3	3	-
BOTNY 558	**Biology of Palm Tree**	3	3	-
BIOL 563	**Water Quality & Sanitation**	2	4.5	MICRO 307