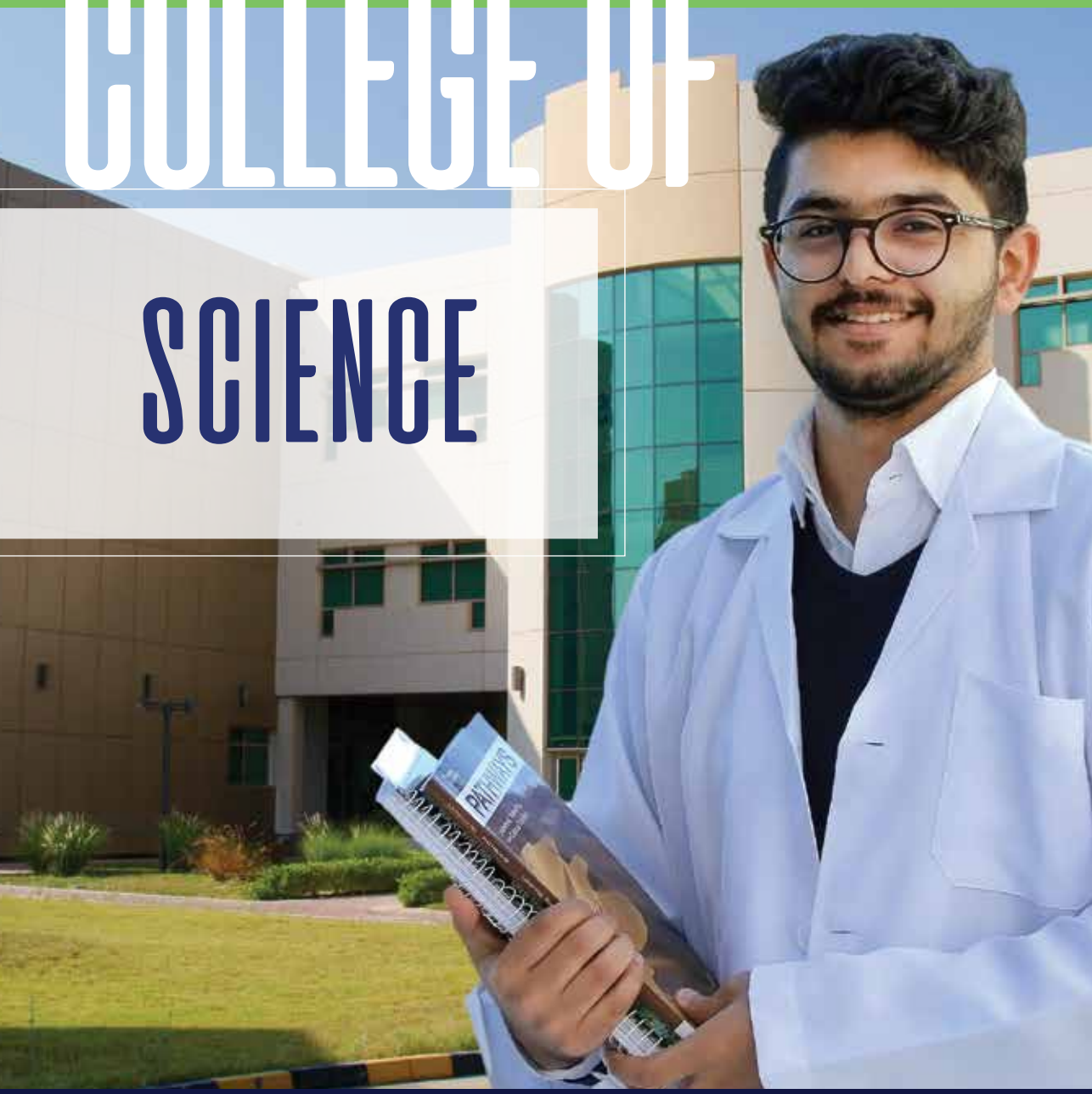
COLLEGE OF

SCIENCE



UNIVERSITY OF
BAHRAIN
BRIDGE TO THE FUTURE

His Royal Highness

Prince Khalifa bin Salman Al-Khalifa

Prime Minister

His Majesty

King Hamad bin Isa Al-Khalifa

King of the Kingdom of Bahrain

His Royal Highness

Prince Salman bin Hamad Al-Khalifa
Crown Prince
Deputy Supreme Commander
First Deputy Premier

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PRESIDENT'S MESSAGE

Science is everywhere in today's world. It is part of our daily lives; advances in technology and science are transforming our world at an incredible pace. Furthermore, the future will continue to advance with technology being the driving force of change. Being "science literate" will no longer be just an advantage but an absolute necessity as the world looks to find cures, solve problems and lead innovation.

The College of Science is leading the region in trying to solve critical issues not just for Bahrain but also for the region. Our research work in the areas of renewable energy, water security and food security has resulted in joint research projects with some of the best universities in the world. In 2017, the College of Science started long term research projects with Oxford University, Aston University and Loughborough University with the focus on developing solutions for our critical issues. In addition, the College has started a new post graduate programme with the Prince Charles trust in environment and sustainable development. This is important to Bahrain and the region as we move towards SMART cities and rapid urbanisation.

The College of Science with its high quality teachers will play a significant role in the development of the economy, with the development of more postgraduate programmes that meet the ambitions of the 2030 vision. The importance of data, material science and nanotechnology will create new jobs and lead innovation within Bahrain, and the College of Science will play a central role in this.

Prof. Riyad Yousif Hamzah
President of the University of Bahrain

DEAN'S MESSAGE

The College of Science is dedicated to providing students with knowledge, intellectual and general skills, and preparing them for future careers, graduate and professional studies, and to be active and responsible members of society.

The total number of students registered in the College of Science for the year 2016/2017 reached 1090. The College's target is to increase the number of students in all programs and to offer new programs that are compatible with the needs of the market. In addition, the College intends to increase its postgraduate programs.

Concerning its faculty, the College has 78 full-time and 10 part-time faculty members who graduated from well-known universities and are highly qualified in their specializations. This ensures that the College of Science graduates students who were taught and educated by specialized and highly skilled faculty members.

The College of Science has five B.Sc. single track programs in Biology, Chemistry, Physics, Mathematics, and Statistics and Operational Research. In addition, students have the option to add a minor in Biology, Chemistry, Physics, Computer Science, Mathematics, or Statistics and Operational Research. Concerning the postgraduate programs, the College currently has 4 M.Sc. programs in Mathematics, Environment and Sustainable Development, Applied Physics, and Nutrition and Dietetics. In addition , The College of Science opened a new P.hD. program in Environment and Sustainable Development to meet the demand for local and international interest in postgraduate multidisciplinary programs. The number of credit hours to obtain a B.Sc. degree ranges between 127-129 credit hours while for an M.Sc. degree it ranges from 33-36 credit hours and for a P.hD. it is 75 credits.

Prof. Mohamed El-Hilo
Dean of the College of Science

THE COLLEGE

THE YEAR
1978

The College of Science was established by the Emiri Decree No. 11 issued by His Highness Shaikh Isa bin Salman Al Khalifa, Emir of the State of Bahrain at the time, and it was part of the College of Science, Arts and Education.

BY THE YEAR
1986

The Emiri Decree No. 12 was issued to establish and organize the University of Bahrain through the integration of the College of Science, Arts and Education with the Gulf College of Technology. The University of Bahrain at that time had four colleges: Arts and Sciences, Business Administration, Education, and Engineering.

IN THE YEAR
1990

The Board of Trustees approved the reorganization of the College of Arts and Sciences, and the College of Science was born as an independent college with four scientific departments: Biology, Chemistry, Mathematics, and Physics.

IN THE YEAR
2005

The College of Science relocated to the Sakhir campus.

SINCE THE YEAR
2009

All the programs within the College begin a quality assurance process under the guidance of the Quality Assurance and Accreditation Center.

IN
2009

The B.Sc. Program in Chemistry is accredited by the Canadian Society for Chemistry (CSC).

IN THE YEAR
2017

The College's B.Sc. programs went through a comprehensive external review process by the Education & Training Quality Authority, Bahrain. All the College's programs succeeded in obtaining «FULL CONFIDENCE».

IN THE YEAR
2018

The B.Sc. program in Biology is mapped to the National Qualification frame work (NQF).

An accreditation process by ASSIN will start for the B.Sc. programs in Biology, Physics, Mathematics, and Statistics and Operational Research.

Mission statement is

TO GENERATE AND DISSEMINATE KNOWLEDGE AND TO PROVIDE STUDENTS WITH KNOWLEDGE AND INTELLECTUAL AND GENERAL SKILLS, AND TO PREPARE STUDENTS FOR A FUTURE CAREER AND FOR BECOMING ACTIVE AND RESPONSIBLE MEMBERS OF SOCIETY

MISSION

The College of Science is dedicated to providing students with knowledge, intellectual and general skills; preparing them for future careers, graduate and professional studies; and guiding them to become active and responsible members of society. The College also aims to generate and disseminate knowledge in areas of national and international concerns that address society's problems and enhance economic development. The College is keen to: build partnerships with the public and private sectors; create a learning environment that provides excellent teaching, mentoring, and interactive student-based learning; innovative research; and reach out to local, regional, and global communities.

OBJECTIVES

1. Review all the College programs and ensure that they are compatible with the needs of the market
2. Ensure that all the College programs are benchmarked and are of high quality
3. Create a learning environment that provides excellent teaching
4. Provide students with knowledge, intellectual and general skills, and prepare them for future careers.
5. Develop students' competence and prepare them to be active and responsible members of society
6. Prepare competitive graduates in the programs offered by the College
7. Focus on scientific research and encourage faculty members to involve students in scientific research
8. Build partnerships with the public and private stakeholders

DEPARTMENT OF BIOLOGY

The main objective of the Department is to train students to enter the marketplace successfully and secure employment in the fields of life/ biological sciences, environment and health, and to join and compete successfully in graduate level studies or professional school programs (medical school), as well as to utilize ethically and positively their learned knowledge and skills to serve their community and contribute to its advancement in the relevant field

OFFERS THE FOLLOWING PROGRAMS:

- B.Sc. in Biology (Single Track)
- B.Sc. in Major Biology and one of the minors
- M.Sc. in Nutrition and Dietetics

DEPARTMENT OF CHEMISTRY

The Department of Chemistry works to refine the students' personalties through conducting research, writing scientific reports, working towards their communication and life-long learning skills, and to prepare the students after graduation to join the labor market in various areas related to chemistry. Furthermore, the graduates are qualified to continue their higher education in the world's best universities and to engage in research fields at an advanced scientific level. The Department of Chemistry obtained academic accreditation for all its programs by the Canadian Society for Chemistry (CSC) in 2009. This accreditation was extended for a 2nd cycle until 2020, which increases confidence in the programs and in the quality of the graduates.

OFFERS THE FOLLOWING PROGRAMS:

- B.Sc. in Chemistry (Single Track)
- B.Sc. in Major Chemistry and one of the minors

DEPARTMENT OF PHYSICS

The Department of Physics is committed to providing a high-quality education in physics and applied physics; to providing physics graduates with scientific and technical skills; to establishing partnerships and collaborations with local institutions, industries, international universities, and scientific research centers; and to producing internationally recognized scientific research. The Department of Physics is also committed to serving the community by conducting scientific consultations and studies and by organizing public lectures and specialized workshops.

OFFERS THE FOLLOWING PROGRAMS:

- B.Sc. in Physics (Single Track)
- B.Sc. in Major Physics and one of the minors
- M.Sc. in Applied Physics

DEPARTMENT OF MATHEMATICS

The main objective of the Department of Mathematics is to train students in the fundamental concepts of mathematics/ statistics and operations research, prepare them for a career in their field, and encourage research and consultations by faculty members.

OFFERS THE FOLLOWING PROGRAMS:

- B.Sc. in Mathematics (Single Track)
- B.Sc. in Major Mathematics and one of the minors
- B.Sc. in Statistics and Operational Research (Single Track)
- B.Sc. in Statistics and Operational Research and one of the minors
- M.Sc. in Mathematics.

COS HAS 13 classrooms that operate from 8:00 am to 9:00 pm five days a week. In addition, there are 9 classrooms in building S48 (an adjacent building) that are used when needed. Also COS has 5 meeting rooms which can be used for departmental and College Council meetings.

COS HAS access to one multipurpose hall located in building S50 which can be used for various purposes.

COS HAS A CENTRAL LABORATORY that contains major research equipment: a Transition Electron Microscope (TEM), an X-ray Diffraction unit (XRD), a Nuclear Magnetic Resonance unit (NMR), a Scanning Electron Microscope (SEM), and a Vibrating Sample Magnetometer (VSM).

COS HAS 36 teaching laboratories, 5 computer laboratory, 19 research laboratories, a greenhouse, and a forgery.

UNDERGRADUATE INFORMATION

B.Sc. IN BIOLOGY

The program provides students with biology basics that are rich in knowledge, applications, and values that are in line with the national education and development requirements for successful careers and postgraduate studies. This is achieved by adhering to high academic levels, to scientific research development, and to the constructive interaction with the society through serving it.

THE CURRICULUM FOR BIOLOGY (SINGLE TRACK) IS COMPOSED OF 128 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (14 credit hours)
- major requirements (49 credit hours)
- major electives (21 credit hours)
- general study electives (9 credit hours)
- training (Internship) (0 credit hours)

THE CURRICULUM FOR BIOLOGY (MAJOR/MINOR) IS COMPOSED OF 128 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (14 credit hours)
- major requirements (43 credit hours)
- major electives (12 credit hours)
- general study electives (3 credit hours)
- minor requirements (21 credit hours)
- training (Internship) (0 credit hours)

B.Sc. IN CHEMISTRY

The programs prepare students with the fundamentals of chemistry in the main discipline areas: Analytical, Inorganic, Organic, and Physical Chemistry. Also, the programs provide students with the skills needed to succeed in graduate studies and in chemical industries.

THE CURRICULUM FOR CHEMISTRY (SINGLE TRACK) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (14 credit hours)
- major requirements (60 credit hours)
- major electives (9 credit hours)
- general study electives (9 credit hours)
- training (Internship) (0 credit hours)

THE CURRICULUM FOR CHEMISTRY (MAJOR/MINOR) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (11 credit hours)
- major requirements (48 credit hours)
- major electives (9 credit hours)
- general study electives (3 credit hours)
- minor requirements (21 credit hours)
- training (Internship) (0 credit hours)

B.Sc. IN PHYSICS

The program provides the students with a strong theoretical foundation along with the necessary practical skills. Graduates of this program are qualified to pursue graduate studies in physics or physics-related fields, and they are able to pursue a successful career in a physics-related field. Furthermore, graduates of the Department of Physics exhibit proper ethical and scientific conduct and contribute positively to society.

THE CURRICULUM FOR PHYSICS (SINGLE TRACK) IS COMPOSED OF 128 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (14 credit hours)
- major requirements (49 credit hours)
- major electives (21 credit hours)
- general study electives (9 credit hours)
- training (Internship) (0 credit hours)

THE CURRICULUM FOR PHYSICS (MAJOR/MINOR) IS COMPOSED OF 128 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (14 credit hours)
- major requirements (49 credit hours)
- major electives (6 credit hours)
- general study electives (3 credit hours)
- minor requirements (21 credit hours)
- training (Internship) (0 credit hours)

B.Sc. IN MATHEMATICS

The program intends to train the students to work successfully in a career related to mathematics or enter a graduate program in mathematics of related fields.

THE CURRICULUM FOR MATHEMATICS (SINGLE TRACK) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (10 credit hours)
- major requirements (49 credit hours)
- major electives (24 credit hours)
- general study electives (9 credit hours)

THE CURRICULUM FOR MATHEMATICS (MAJOR/MINOR) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (10 credit hours)
- major requirements (49 credit hours)
- major electives (9 credit hours)
- general study electives (3 credit hours)
- minor requirements (21 credit hours)

UNDERGRADUATE INFORMATION

B.Sc. IN STATISTICS AND OPERATIONAL RESEARCH

The program aims to train students to work successfully in a career related to statistics and operations research or to pursue a graduate program in statistics or any related field and use statistics effectively in making decisions that enhance society's development.

THE CURRICULUM FOR STATISTICS AND OPERATIONAL RESEARCH (SINGLE TRACK) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (13 credit hours)
- major requirements (52 credit hours)
- major electives (21 credit hours)
- general study electives (6 credit hours)
- training (Internship) (0 credit hours)

THE CURRICULUM FOR STATISTICS AND OPERATIONAL RESEARCH (MAJOR/MINOR) IS COMPOSED OF 127 CREDIT HOURS

- university requirements (11 credit hours)
- college requirements (24 credit hours)
- major support requirements (13 credit hours)
- major requirements (52 credit hours)
- major electives (6 credit hours)
- minor requirements (21 credit hours)
- training (Internship) (0 credit hours)

ADMISSION

The applicants who meet the following requirements will be admitted to the University of Bahrain to get a BACHELOR degree:

- A secondary school certificate or its equivalent with a minimum of 70% grade
- No more than two years shall have passed since the applicant obtained his/her high school certificate
- An applicant shall pass aptitude tests and personal interviews - if any - or other tests required by the University
- The applicant shall have the language competency required according to the language of instruction
- The applicant shall be medically fit for the academic program he/she wishes to enroll in the applicant shall have good conduct

For admission to the College of Science programs, there are no additional requirements to the above university admission requirements.

GRADUATION REQUIREMENTS

The normal period required for a student to finish a B.Sc. Program is 4 years; the minimum is 3 years; and the maximum is 7 years. To meet the graduation requirements, students must:

- successfully complete all the program courses
- have a minimum cumulative GPA of 2.00 out of 4.00
- have a minimum cumulative GPA of 2.00 out of 4.00 in the specialized courses
- complete a professional internship before the graduation (minimum of 320 hours)

POLICIES ARE IN FORCE TO HANDLE TRANSFER STUDENTS AND TO JUDGE THE ACCEPTABILITY OF THEIR CREDITS TO BE TRANSFERRED.

CAREER OPPORTUNITIES

HIGH SCHOOL TEACHER, FORENSIC SCIENTIST, METEOROLOGIST, LABORATORY TECHNICIAN, DATA ANALYST, ANALYTICAL CHEMIST, CLINICAL BIOCHEMIST, HEALTHCARE SCIENTIST, PHARMACOLOGIST, TOXICOLOGIST, HEALTH CARE PROVIDER, RESEARCHER, FISHERIES STAFF MEMBER, ENVIRONMENTAL OFFICER, FOOD INDUSTRIES TECHNICIAN, AGRICULTURAL OFFICER, SCIENCE CENTER DEMONSTRATOR, RADIOLOGIST.

In addition, graduates can work in several ministries such as: Ministry of Labor, Ministry of Health, Electricity and Water Authority, Central Informatics Organization, Ministry of Youth, Ministry of Education, Meteorology Department, Supreme Council for Women, Ministry of Commerce, and others.

GRADUATE INFORMATION M.Sc.

MASTER OF SCIENCE IN APPLIED PHYSICS

The program provides students with advanced knowledge in core subjects in physics and prepares them to pursue their higher studies toward a Ph.D. degree in physics. It also equips students with the necessary training and skills in experimental and numerical methods that will enable them to solve advanced problems in applied physics.

THE CURRICULUM IS COMPOSED OF 36 CREDIT HOURS

- compulsory courses (12 credit hours)
- elective courses (15 credit hours)
- thesis (9 credit hours)

MASTER OF SCIENCE IN MATHEMATICS

The program intends to provide students with intense knowledge in advanced pure and applied mathematics and to enhance their ability to perform research.

THE CURRICULUM IS COMPOSED OF 36 CREDIT HOURS

- Core courses (15 credit hours)
- Elective Courses (15 credit hours)
- Thesis (6 credit hours)

MASTER OF ENVIRONMENTAL AND SUSTAINABLE DEVELOPMENT - ESD

The Master program in Environmental and Sustainable Development (ESD) is a joint program between University of Bahrain (Kingdom of Bahrain) and Prince's Foundation for Building Community (United Kingdom). The program is designed to boost students' professional practice skills to enhance their career prospects in Environmental Science, Sustainable Development and Sustainable Urbanism. The program attracts a lively and engaged group of students, who combine postgraduate study with their professional lives. Students have the opportunity to choose between two major streams; Stream I: Environmental Science and Development, or Stream II: Sustainable Urbanism.
The curriculum of the ESD master program is designed to give students diverse educational skills. It involves various learning methods including lectures, field visits, self-studies, multidisciplinary projects, and case studies.

THE CURRICULUM IS COMPOSED OF 33 CREDIT HOURS

- core courses (18 credit hours)
- elective courses (9 credit hours)
- thesis (6 credit hours)

MASTER OF NUTRITION AND DIETETICS

The M.Sc. in Nutrition and Dietetics provides a unique and competitive Masters Program in Nutrition and Dietetics in the region attracting candidates from the Arab Gulf countries to register in this program due to the unavailability of such a program in their countries. The flexibility of the program to carry out the thesis in the candidates' country is another advantage of this program, as many students prefer to do their field researches in their own countries. It provides a good opportunity for Bahraini nutritionists and others to continue their postgraduate studies in Bahrain, thus supplying the local market either in Bahrain or in the Arabian Gulf countries with highly qualified candidates in the field of nutrition and dietetics.

THE CURRICULUM IS COMPOSED OF 33 CREDIT HOURS

- core courses (21 credit hours)
- elective courses (6 credit hours)
- thesis (6 credit hours)

GRADUATE INFORMATION M.Sc.

ADMISSION

The applicants who meet the following requirements will be admitted to the University of Bahrain to get a MASTER degree:

- Fulfill the university requirements for admission to postgraduate studies
- Hold a B.Sc. Degree in the required discipline or a related field to the required discipline (full-time study) from a recognized university, with a minimum GPA of 2.67 out of 4.00 based on the grade point system, or equivalent
- Meet the Proficiency in English language requirement for postgraduate admission
- Pass a written qualifying exam
- Pass a personal interview

GRADUATION REQUIREMENTS

The normal period required for a student to finish a Postgraduate Program is 2 years; the minimum is one and a half year and the maximum is 4 years. To meet the graduation requirements, students must:

- Successfully complete all the program courses (the passing grade in all courses of the Master's program is a grade of 'B'. However, a student may pass with a minimum grade of 'B-' in two courses only)
- Attain a minimum cumulative GPA of 3.00 out of 4.00.

GRADUATE INFORMATION P.HD.

PHD IN ENVIRONMENTAL AND SUSTAINABLE DEVELOPMENT - ESD

This new PhD program is aimed to focus on the involvement in sustainable systems including the creation of products and services using processes that are non-polluting, conserving of energy and natural resources, economically viable and finally safe and healthful for workers, communities, and consumers. Nearly, all colleges at University of Bahrain (including their adjusted research centers will be also engaged in this program); i.e. it's an interdisciplinary approach to solving intractable sustainability problem.

The program's curriculum emphasizes on United Nation Sustainable Development Goals 2030 with emphasis on Environmental issues. These are: No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation , Decent Work and Economic Growth, Industry Innovation and Infrastructure Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life on Land Peace, Justice and Strong Institutions and Partnerships for the Goals.

Students in the program will have the opportunity to work with multidisciplinary faculty and researchers in numerous research fields. United Nation University, United Nation Development Program (UNDP) and United Nation Environmental Program (UNEP) as well as Prince Charles Foundation (UK) will be our partners.

THE CURRICULUM IS COMPOSED OF 75 CREDIT HOURS

- core courses (21 credit hours)
- thesis (54 credit hours)

ADMISSION

The applicants who meet the following requirements will be admitted to the University of Bahrain to get a PhD degree in ESD:

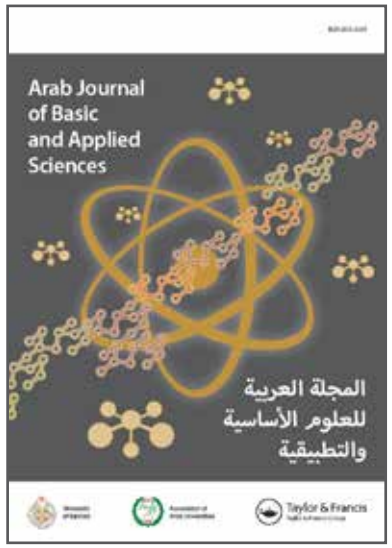
- M.Sc. Degree in any specialty but preferably in Science, Engineering and in ESD) provided that he is a full time student or equivalent. Minimum GPA is 3 out of 4 for the grade point system, or equivalent.
- Pass a written qualifying exam in the basics of ESD.
- Pass an interview.
- Two academic recommendation letters.
- An English proficiency certificate [TOEFL: 500 (PBT) or 61 (IBT) or 173(CBT) or [IELTS:6], or equivalent.

GRADUATION REQUIREMENTS

The normal period required for a student to finish a PhD Program is 4 years; the minimum is 3 years and the maximum is 5 years. To meet the graduation requirements, students must:

- Successfully complete all the program courses (the passing grade in all courses of the P.hD. program is a grade of 'B'.
- Attain a minimum cumulative GPA of 3.00 out of 4.00

RESEARCH CAPABILITIES



The College of Science is one of the key colleges in the University that makes valuable contribution to the UoB citable scientific research record where it is responsible for at least 40% of the University›s citable research record. In addition, the College manages the Arab Journal for Basic and Applied Sciences (AJBAS) formally known as Journal of the Association of Arab Universities for Basic and Applied Sciences (JAAUBAS) (2005 - 2017). The journal ranked 23 after the Journal of Nature among the top multidisciplinary journals worldwide and its metrics for the year 2017 are: SJR = 0.33 from SCImago and SiteScore = 2.24 from Scopus.

EXTERNAL RESEARCH PROJECTS:

The College of Science manages three external projects. These are:

- UNIVERSITY OF BAHRAIN (UoB) AND UNIVERSITY OF OXFORD (UOX) COLLABORATIVE RESEARCH ACTIVITIES
- UNIVERSITY OF BAHRAIN (UOB) AND ASTON UNIVERSITY (AU) COLLABORATIVE RESEARCH ACTIVITIES
- UNIVERSITY OF BAHRAIN (UOB) AND LOUGHBOROUGH UNIVERSITY (LBORO) COLLABORATIVE PROJECT

RESEARCH AREAS OF THE COLLEGE OF SCIENCE DEPARTMRNTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

IN BIOLOGY: Antioxidants/Free Radical Biology, Community Nutrition Assessment, Dietary Flavonoids, Food composition and Food Analysis, Food Safety, Food/Nutrient Toxicology, Health Promotion/Disease Prevention, Microbiology, Natural Products, Nutrition Assessment, Nutritional Values, Nutritional/Food Biochemistry, Physiology, Phytochemicals, Probiotics, Public Health Nutrition, Sociology of Nutrition, Sport Nutrition.

IN CHEMISTRY: Synthesis of Heterocyclic Compounds, Micellization of Surfactants, Polymer Chemistry, Bio-Organic and Green Chemistry, Organic Pollutants Analysis, Bioactive Chemicals Isolation and Synthesis, Medicinal Plants and Herbs, Environmental Monitoring and Assessment, Molecular Photochemistry, Chemometrics techniques to various kinetic data, determination of natural products from microorganisms and plants, Matrix Isolation Spectroscopy, Molecular Modeling, Surface-Catalyzed Reactions, Cytotoxicity, Inorganic Synthesis, Synthesis of functionalized nanoparticles for biomedical applications, Synthesis of Acyclic and Macrocyclic Receptors for Anions, transient transfection, Heavy Metals Analysis, Spectroscopic Analysis.

IN PHYSICS: Semiconductors, Semiconductor devices, Nonlinear optics, Nanomaterials (magnetic and nonmagnetic), Biomagnetism, Biophotonics, Nanoparticles for biomedical applications, Renewable energy, Magnetic fluids, Nuclear radiation and detection, Astronomy and astrophysics, Particle physics, Modeling of magnetic systems, Polymers, dyes and nanomaterials for solar cell technology, Magnetocaloric nanomaterials, Hydrogen storage, Spintronics, Nanocomposite based on carbon nanostructures, Multiscale modeling at the nanoscale, Theoretical condensed matter physics, Neutron diffraction measurements, Surface science, Plasma physics, Laser physics, Metal physics.

IN MATHEMATICS: Theoretical Physics, Applied Mathematics, Operations Research, Sampling, Applied Statistics, Medical Statistics, Quantum Theory, Mathematical Analysis, Algebra, Number Theory, Numerical Analysis, Mathematical Modeling, Differential equations, Numerical Solution of Biomedical Science Models.

CONSULTANCY AND COMMUNITY SERVICES

The College of Science is committed to serving the community through various activities such as garden show, workshops, open science days, school student visits, science forums, public seminars, consultation work and building partnerships. The college's engagement with the local institutions facilitates students' training since students are exposed to real scientific experiences. The internship course provides enormous feedback on how to enhance the partnership between the college and the community in the public and private sectors. As per each department, the activities are:

UoB Pavilion in the Bahrain International Garden Show - 2017

UoB Pavilion in the Bahrain International Garden Show - 2018

(BIOLOGY) The Department of Biology is committed to serving the community through its faculty members' participation in public as well as professional lectures, workshops, conferences, exhibitions, and meetings. The faculty of the Department of Biology has served the Education sector over the years by giving scientific lectures to governmental as well as private schools students; participating actively in the GLOBE Program; acting as external examiners for many private schools; training many secondary private school students, and supervising several small projects. The Department has also conducted several workshops for school teachers and ministries; participated effectively in the Bahrain International Garden show; provided consultation to many institutes including the Supreme Council for Environment; Fish and Fisheries Directorate, and agriculture institutes.

(CHEMISTRY) The Department of Chemistry is committed to serving the community by acting as a resource on chemistry-related matters including work with professional societies, providing them with consultations and conducting workshops and conferences. The faculty members participate in many public lectures for secondary schools in the private and public sectors. Also, the department provides consultation and collaboration with industries such as BAPCO, GPIC and ALBA in some issues related to analysis and chemical problems. Some of the faculty members participate actively in some events and exhibitions, such the Bahrain International Garden Show (2012-2017) and the Science Day (April 2016) for secondary schools.

(PHYSICS) The Department of Physics has a very active role in serving the community through its faculty members who regularly give many public lectures and workshops that are delivered to organizations such as schools, Ministry of Education, Electricity and Water Authority, Traffic Directorate, Scientific and Technical Societies, hospitals, etc. Also, the faculty have been involved in serving as judges for GLOBE, VEX, Robotics and Gulf Competition for Science and Technology and as external examiners for private schools. In addition, consultancy services are provided to public/private organizations.

(MATHEMATICS) The Department of Mathematics provides consultations through its statisticians to many government agencies as well as some of the private sector agencies. Our internship students work in many ministries such as Ministry of Labor, Ministry of Health, Electricity and Water Authorization, Central Information Organization, and Ministry of Youth.

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