

ANNUAL REPORT

2016-2017



جامعة الإمارات العربية المتحدة
United Arab Emirates University

UAEU College of
Science

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#Happy_College 😊

#الكلية_السعيدة 😊

THE COLLEGE

DEAN'S MESSAGE

I am pleased to write this introductory message of the College of Science Annual Report for academic year 2016/2017 and it is my great pleasure to launch this Annual Report. This report highlights the major achievements of the faculty members, staff and students of the College. The College of Science (COS) is a pillar college at the University. Science subjects are required by different specializations of other colleges. Since establishment of the College in 1977, the College of Science has always looked for the best and this is reflected in the quality of the programs offered. In this academic year, the Chemistry BSc program was reaccredited by the Canadian Society of Chemistry (CSC), and the Biochemistry B.Sc. program received its accreditation from the Canadian Society of Chemistry (CSC) for the first time. Major research achievements of faculty members and students were highlighted as the importance of research to the nation.



At present, the United Arab Emirates University (UAEU) is engaged in a process of transformation to become a research-intensive university of the highest international standards – The University of the Future. The COS has responded to this ambitious target, with faculty members and students producing world-class research. This research is published in international journals, presented at prestigious conferences and is further reflected in successfully securing research funding.

The College supports six undergraduate programs (Biology, Biochemistry, Chemistry, Geology, Mathematical Sciences and Physics), five graduate programs (Environmental Sciences, Molecular Biology and Biotechnology, Chemistry, Physics and Mathematics), and PhD programs in different tracks. College faculty and students also participate in other Masters programs in Material Science and Engineering, Water Resources and Remote Sensing & Geographic Information Systems. The College emphasizes an environment of learning through the experiential nature of laboratory-based coursework and field practical instruction. In partnership with industry, and other organizations, the goal of the College is to prepare students for success and leadership in the highly competitive and rapidly changing global marketplace and to provide a high-quality technical workforce for the future. We will keep providing the community with leaders who can contribute to the mission and vision of the nation, and we look forward to working with our colleagues across the nation in striving for continuous improvement.

The COS has established lasting connections with prestigious national and international institutes and organizations. Such collaborations provide opportunities for faculty and student exchanges, research partnerships, internships and sponsorships.

I would like to thank Dr. Ranjit Vijayan, Coordinator of Annual Report Committee & COS Newsletter Editorial Board, and his team for their efforts in completing the task of preparing this Annual Report.

Prof. Ahmed Ali Murad
Dean, College of Science

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STRATEGIC PARTNERS



COLLEGE ADMINISTRATION



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Dean



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Vice Dean



Dr. Sulaiman Ali Alaabed Alkaabi
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for Professional Development
and Student Affairs



Dr. Ruwaya Al Kindi
Assistant Dean
for Research & Graduate Studies

HEADS OF DEPARTMENT



Dr. Khaled Amiri
BIOLOGY



Dr. Mohamed Alazab Alnaqbi
CHEMISTRY



Dr. Khalid Mohamed Saleh Al Bloushi
GEOLOGY



Dr. Mohammed Salim
MATHEMATICAL SCIENCES



Prof. Usama Al Khawaja
PHYSICS

MISSION, VISION, STRATEGIC PRIORITIES AND GOALS

MISSION

The College of Science, by fostering an environment where students and faculty staff work collaboratively to expand knowledge in the disciplines of basic sciences (Biology, Chemistry, Geology, Mathematical Sciences and Physics), seeks to provide both majors and non-majors with the foundation that is appropriate to their career goals and with knowledge and skills that will allow them to function as responsible and contributing members of the society.

VISION

The vision of the College of Science aligns itself with the UAE University's vision. The vision aims at providing excellence in teaching and learning, successful research and creative endeavors, and professional fulfillment. The College aims to attain international standards in relation to all basic sciences. We aspire to be a center for scholarship, creativity, and innovation that develops appropriate educational programs of high quality in line with international standards, including those at the doctoral level, as the emerging needs of the region dictate.

STRATEGIC PRIORITIES

The strategic priorities of the College are:

1. Improving students enrollment and students life
2. Continuously improving the quality of academic programs and students skills
3. Emphasizing research funding and focusing on national needs
4. Improving the operational efficiency of the College and services to community

GOALS

The goals of the College are aligned with that of the University, which are:

1. Prepare graduates to be pioneers and leaders in their areas of specialization.
2. Develop scientific research capacity and innovation in areas of regional and national importance.
3. Achieve academic excellence in accordance with academic accreditation and institutional accreditation standards.
4. Promote the University's role in the transfer of knowledge and skills to serve the society.
5. Ensure that administrative services are provided with a high standard of quality, efficiency and transparency.

HIGHLIGHTS OF 2016-2017

The College actively promoted several events to mark the **Year of Reading** and launched initiatives such as **#HappyCollege** and **Science Dialogues**.

Members of the College **published over 180 research articles in the academic year 2016-2017**. Faculty members continue to publish in high impact journals.

Dr Khaled El Tarabily (Biology) and his student research team won two prestigious awards - best scientific research in the field of Applied Chemistry and Biochemistry and the best of the best scientific research - at **Think Science 2017**.

Students received several awards at local and regional conferences including Imperial Barrel Award Competition and the UAE Undergraduate Research Competition.

The **Chemistry BSc program was re-accredited** by the Royal Society for Chemistry.

COS and its departments **organized leading international conferences** like the **First UAEU Symposium on Biological Sciences: Genomics and Bioinformatics** and the **First Middle East Geoscience Student Conference**.



ABOUT THE DEPARTMENTS

BIOLOGY



The Biology Department offers undergraduate programs in three areas of concentrations - Cellular and Molecular Biology (CMB), Ecological and Environmental Biology (EEB), and General Biology (GB). The graduates of the Department of Biology are adequately trained to carry out the innovations required for the vision of the University. The Department undertook a periodic program review of its BSc programs in the academic year 2015-2016 and is currently implementing the program improvement plan based on the feedback of the reviewers. The Department also has a very strong research focus. Faculty members of the department have won several highly competitive internal and external research grants, and innovation awards. The Department has a very vibrant research community undertaking basic, descriptive and applied research using modern laboratories equipped with state-of-the-art equipment and supported by experienced and dedicated personnel. Undergraduate and graduate students are routinely offered opportunities to assist in active research projects.

CHEMISTRY



The Chemistry Department has developed a full-fledged teaching and research program since its establishment in 1977. The Department offers both undergraduate and graduate degrees, including BSc in Chemistry, BSc in Biochemistry, MSc in Chemistry and PhD in Chemistry. The BSc in Chemistry is firmly established and enjoys accreditation by both the Canadian Society for Chemistry (since 2007) and the UK Royal Society of Chemistry (RSC) (since 2011). In January 2016, the Chemistry program was reaccredited for the second time by the RSC. The recently created BSc in Biochemistry degree is also picking momentum and is based on European and North American standards. Chemistry and biochemistry students have access to effective instruction, excellent lab facilities and practical training based on the latest smart learning technology. Faculty members also devote much of their time and expertise in research. The Department also organizes workshops and training in the field of chemistry, lab management and safety.

GEOLOGY



The Geology Department is committed to providing students with a comprehensive knowledge of modern theory and geotechnical skills in a range of pure and applied geoscience fields, as a firm foundation for their future professional activities. The management of the Earth's environment and finite resources is a major concern for mankind. These latter topics are specially treated in an important group of interrelated environmental Geology courses in the revised curriculum. The Department currently offers two Tracks and is in the process of establishing one specialized geosciences track in order to meet the specific needs the employers in the UAE private and public sectors. The Geology program aims at enabling the graduates to participate fully in Geology-based industries, in the fields of education, and in scientific research. In addition to the main target, the Geology program offers and will offer the students a coverage in the geological sciences, and their applications to exploration for Earth's resources, and to the solution of environmental problems in the geological context.

MATHEMATICAL SCIENCES



Upon the inception of the University in 1976 the Department was titled Department of Mathematics and Statistics. Subsequently the Statistics program was transferred to the College of Business and Economics, and the Department was titled Department of Mathematics and Computer Science offering BSc in Mathematics and BSc in Computer Science. This stage continued until 1999 with the establishment of the College of Information Technology where the Computer Science program was eventually hosted. In 2004 the Department became the Department of Mathematical Sciences and establish tracks in mathematically related subjects such as Financial Mathematics, Mathematical Biology, Mathematical Statistics, Operations Research, and Actuarial Science. The department now offers programs of study leading to the BSc, MSc and PhD in Mathematics. Graduates will be pioneers and confident in working in multi-disciplinary settings and will be able to undertake evidence-based practice and care to high ethical standards meeting the needs of the scientific community.



PHYSICS



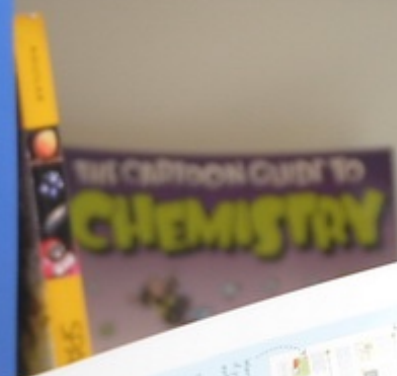
The Department of Physics has a mission to prepare and equip the students with knowledge and tools to enable them not only to survive but rather to lead and innovate in nowadays evolving interdisciplinary world. The Department offers a very strong program in Physics with high standard and international recognition. It promotes both teaching and research within the University as well as in the society. It makes bridges and links with well-reputed international institutions and research centers to establish research collaborations for both students and faculty members. The Department strives to serve the society in upgrading and updating the prior-university educational systems and curricula as well as providing scientific insights and technical guidance to many other establishments. It has established good links for research collaborations with well-reputed international institutions and research centers, and CERN is an example of such collaboration which involves students' enhanced international experience.

Today a
Tomorrow

of elemental sulfur (continued)

...process to convert H_2S to elemental sulfur
...is carried out in presence of elemental sulfur
...is condensed at lower $170^\circ C$
...reactor where the reactor
...The five gases have

... 2.2

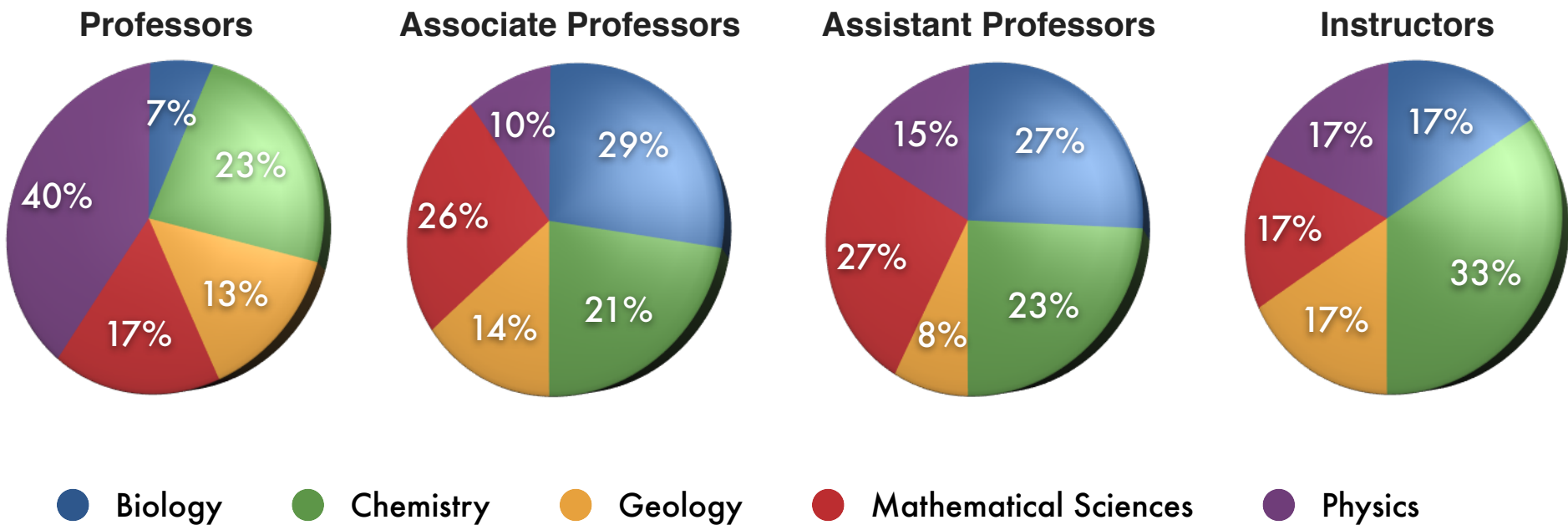


GOAL 1: PREPARE
PIONEERING GRADUATES



FACULTY NUMBERS

| Department | Professors | Associate Professors | Assistant Professors | Visiting / Adjunct Professors | Instructors | Total |
|-----------------------|------------|----------------------|----------------------|-------------------------------|-------------|-------|
| Biology | 2 | 12 | 7 | 1 | 4 | 26 |
| Chemistry | 7 | 9 | 6 | 2 | 8 | 32 |
| Geology | 4 | 6 | 2 | 0 | 4 | 16 |
| Mathematical Sciences | 5 | 11 | 7 | 0 | 4 | 27 |
| Physics | 12 | 4 | 4 | 1 | 4 | 25 |
| Total | 30 | 42 | 26 | 4 | 24 | 126 |

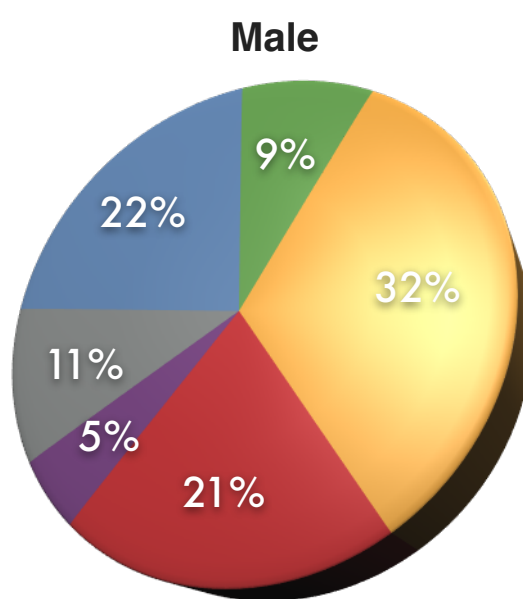
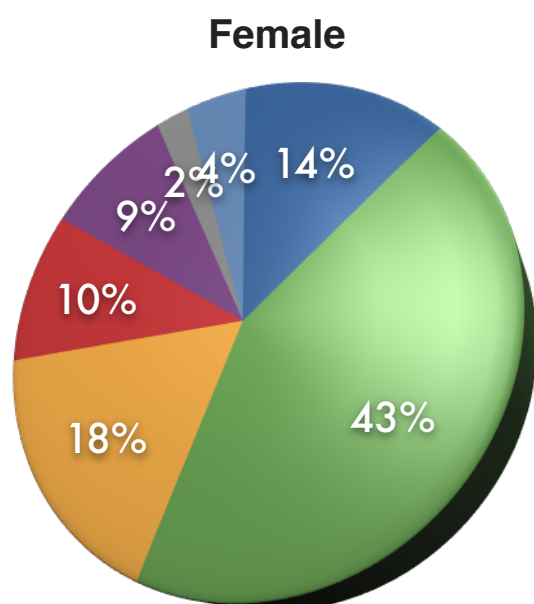




UNDERGRADUATE STUDENT NUMBERS

| Major | 2014-2015 | | 2015-2016 | | 2016-2017 | |
|-----------------------|-----------|------|-----------|------|-----------|------|
| | Female | Male | Female | Male | Female | Male |
| Biochemistry | 82 | 0 | 90 | 0 | 120 | 0 |
| Biology | 325 | 9 | 324 | 8 | 372 | 16 |
| Chemistry | 129 | 66 | 144 | 61 | 156 | 56 |
| Geology | 118 | 62 | 120 | 47 | 88 | 36 |
| Mathematical Sciences | 85 | 13 | 84 | 12 | 78 | 9 |
| Physics | 19 | 27 | 21 | 19 | 20 | 19 |
| Pre-Sciences | 191 | 29 | 142 | 32 | 36 | 39 |

Undergraduate Students (2016-2017)

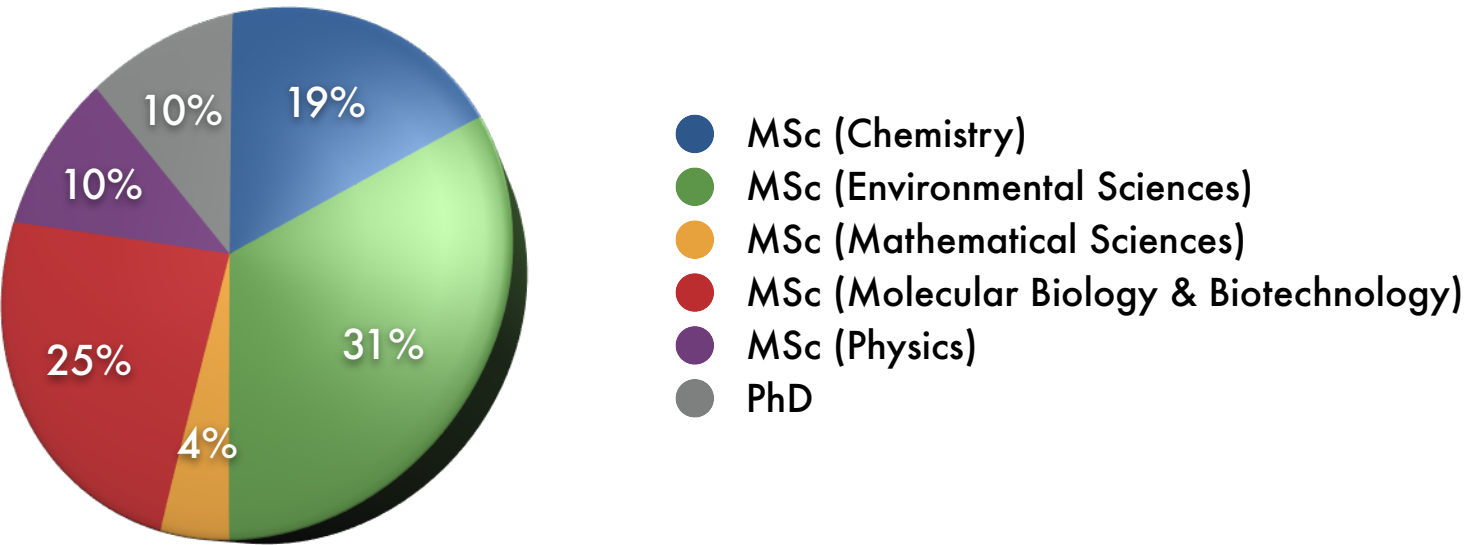


- Biochemistry
- Biology
- Chemistry
- Geology
- Mathematical Sciences
- Physics
- Pre-Sciences



GRADUATE STUDENT NUMBERS

| Program | Number of students |
|---|--------------------|
| MSc (Chemistry) | 18 |
| MSc (Environmental Sciences) | 30 |
| MSc (Mathematical Sciences) | 4 |
| MSc (Molecular Biology & Biotechnology) | 24 |
| MSc (Physics) | 10 |
| PhD (9 tracks) | 10 |



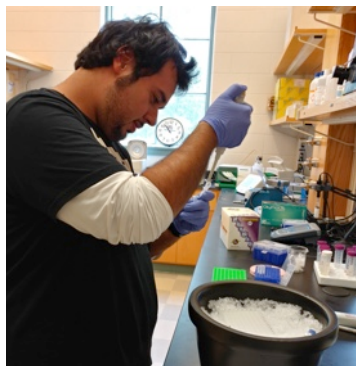
STUDENT EXPERIENCES

Internship and international experiences

Several students from the College of Science attended local, regional and international conferences.

A number of students from the Department of Geology are competitively selected to undertake their internship in Japan. This internship started in 1993 and is still being organized by Japan Oil Development Company (JODCO).

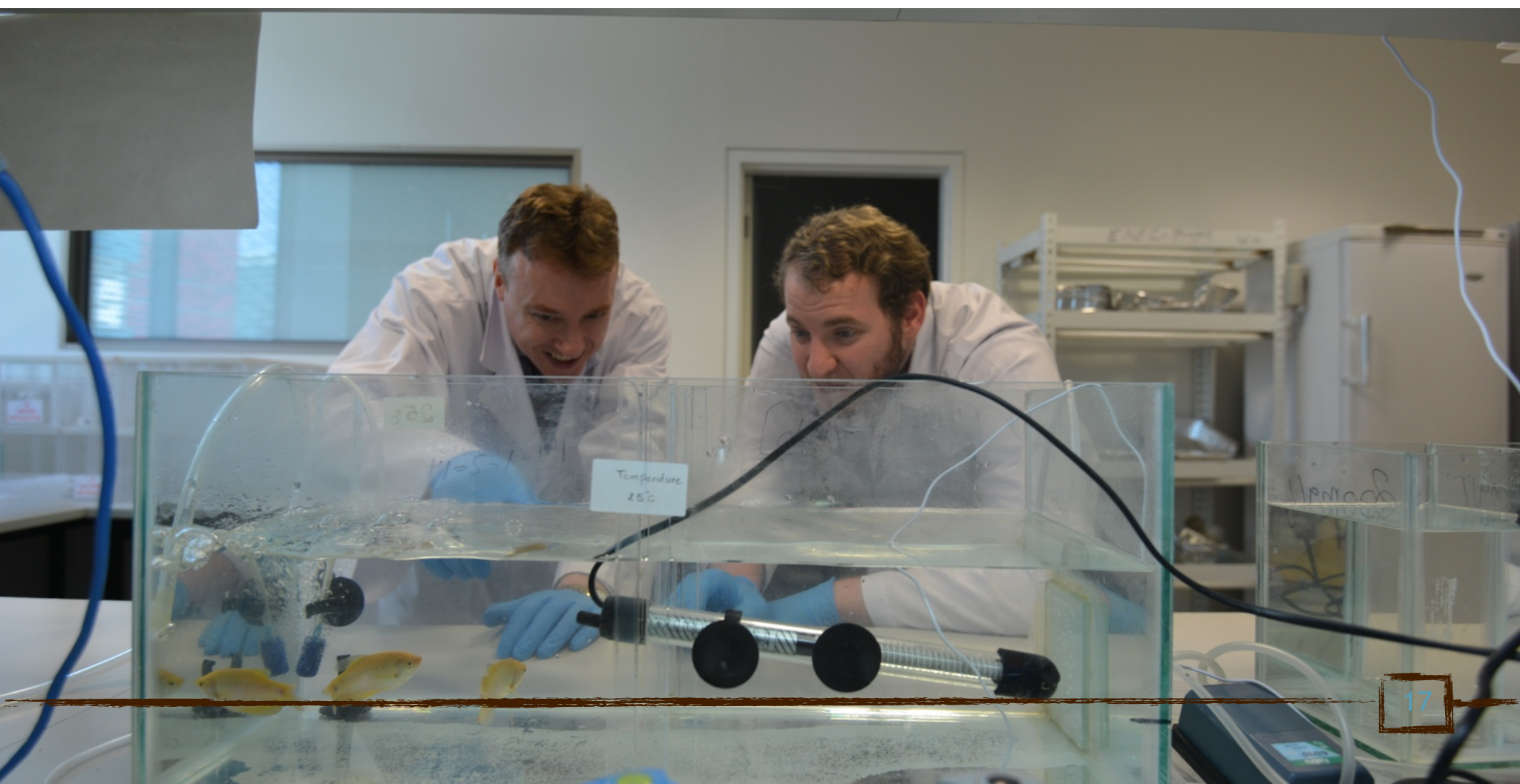
The Department of Biology sent students accompanied by a lab specialist to the University of Hong Kong for summer training.



Mr Abdulla Al Marzooqi from the Department of Biology underwent a summer training program at the Center for Applied Genetic Technologies, University of Georgia between 11 July 2017 - 14 August 2017.

Undergraduate and graduate students in research activities

Undergraduate and graduate students are involved in research projects as part of their core curriculum. Additionally, they are provided opportunities to work as research assistants on funded research projects. Undergraduate students have gone on to win prestigious research awards at various levels.



SURE PLUS 2017

The College of Science received a record 32 Summer Undergraduate Research Experiences (SURE) Plus 2017 initiative awards totaling close to 2 million dirhams. Teams of 3-5 graduate and undergraduate students received an opportunity to work on extended projects with an experienced faculty member for around 5 weeks during the summer break and during the academic year 2016-2017.

| # | PI | Department |
|----|--------------------------|------------|
| 1 | Dr. David Thomson | Biology |
| 2 | Dr. Ruwaya Alkendi | Biology |
| 3 | Prof. Amr Fawzy | Biology |
| 4 | Dr. Na'il Ibrahim | Chemistry |
| 5 | Prof. Sayed Marzouk | Chemistry |
| 6 | Dr. Mohammed A. Meetani | Chemistry |
| 7 | Dr. Muna Alfalasi | Chemistry |
| 8 | Prof. S. Salman Ashraf | Chemistry |
| 9 | Prof. Abbas Khalil | Chemistry |
| 10 | Dr. Ahmed Alzamly | Chemistry |
| 11 | Dr. Mohammed Khasawneh | Chemistry |
| 12 | Dr. Yaser Mohamed Greish | Chemistry |
| 13 | Dr. Haythem Saadeh | Chemistry |
| 14 | Dr. Hakim Saibi | Geology |
| 15 | Dr. Osman Abdelghany | Geology |
| 16 | Dr. Salem Issa | Geology |
| 17 | Prof. Hasan Arman | Geology |
| 18 | Dr. Sulaiman A. Al-Kaabi | Geology |
| 19 | Dr. Mohamed El Tokhi | Geology |

| # | PI | Department |
|----|-------------------------|-----------------------|
| 20 | Prof. Mohammed Syam | Mathematical Sciences |
| 21 | Dr. Adama Diene | Mathematical Sciences |
| 22 | Dr. Mohamed El Bachroui | Mathematical Sciences |
| 23 | Dr. Mohamed A. Hajji | Mathematical Sciences |
| 24 | Dr. Abdessamad Tridane | Mathematical Sciences |
| 25 | Dr. Mohammad Imran | Mathematical Sciences |
| 26 | Prof. Mohamed Alrefai | Mathematical Sciences |
| 27 | Prof. Nacir Tit | Physics |
| 28 | Prof. Nouredine Amrane | Physics |
| 29 | Dr. El Hadi Sadki | Physics |
| 30 | Prof. Usama Al Khawaja | Physics |
| 31 | Prof. Ihab Obaidat | Physics |
| 32 | Prof. Naser Qamhieh | Physics |

THINK SCIENCE 2017

A student team from the Department of Biology, representing the United Arab Emirates University, supervised by Dr Khaled El-Tarabily won two prestigious awards in the Think Science Competition 2017. The first prize was awarded to Ms. Sara Salem AlRashedi, Ms. Noura Salem Al Hbabi, Ms. Maryam Ismail Albalooshi, and Ms. Nila Nabi Jan for the best scientific research in the field of Applied Chemistry and Biochemistry. The same team also won the first place for the best scientific research at all universities in the United Arab Emirates. They were honored in Dubai by His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, at a special ceremony. The United Arab Emirates University, represented by the Department of Biology from the College of Science, was awarded the "Best of the Best Scientific Research Award" in the field of scientific research for young scientists in 2017. The winning research was to increase the efficiency of plant treatment of petroleum contaminants in soil using bacteria in a new and innovative way.



SMART LEARNING INITIATIVE

The COS has been at the forefront of adopting and embracing the UAEU “Smart Learning Project”. As part of this initiative, each of the five departments of the COS has selected an entry level course and a willing faculty member to “transform” these five courses into “Smart Courses”, by adopting various technological and pedagogical approaches to enhance student learning. The five courses that have been selected for this academic year are:

| Department | Course code | Course |
|-----------------------|-------------|-----------------------------------|
| Biology | BIOC100 | Basic Biology |
| Chemistry | CHEM112 | General Chemistry II |
| Geology | GEOA250 | Paleontology |
| Mathematical Sciences | MATH105 | Calculus I |
| Mathematical Sciences | MATH115 | Calculus for Business & Economics |
| Physics | PHYS105 | General Physics I |
| Physics | PHYS1110 | Physics I for Engineering |

A smart learning committee also organized a symposium on “Smart Learning: Innovative Ideas and Solutions” where the members of the committee presented on topics related to introducing smart learning techniques for teaching and learning.



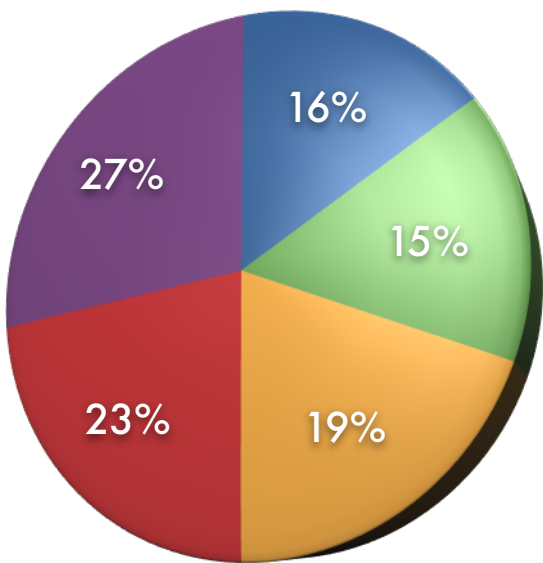
**GOAL 2: DEVELOP
SCIENTIFIC RESEARCH
CAPACITY & INNOVATION**

PUBLICATIONS AND CONFERENCE PARTICIPATION

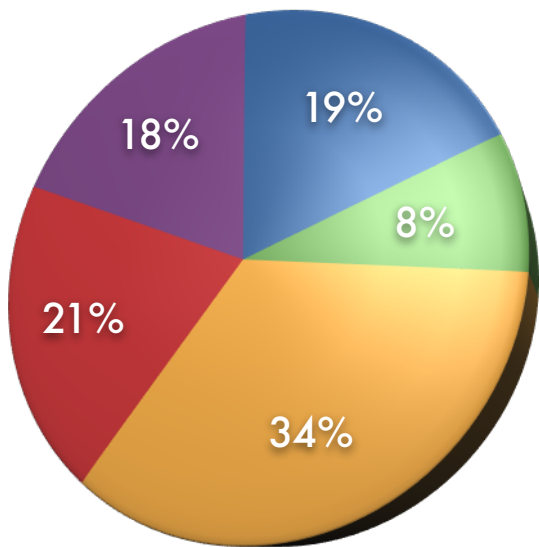
The college continues to undertake research of high caliber which are routinely published in leading international journals and presented at international conferences.

| Department | No. of scientific research articles published in international journals | No. of scientific presentations at international conferences |
|-----------------------|---|--|
| Biology | 29 | 24 |
| Chemistry | 27 | 10 |
| Geology | 34 | 42 |
| Mathematical Sciences | 41 | 26 |
| Physics | 49 | 23 |
| Total | 180 | 125 |

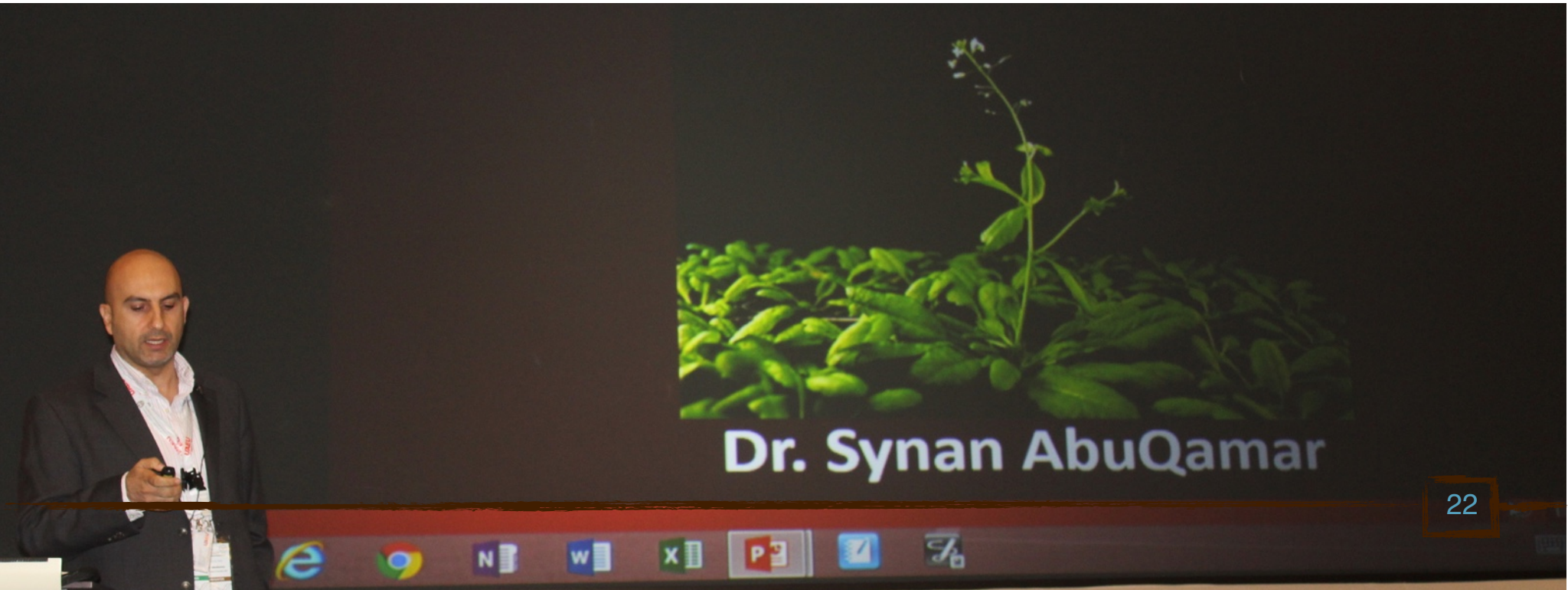
Journal publications



Conference presentations



- Biology
- Chemistry
- Geology
- Mathematical Sciences
- Physics



UAE UNIVERSITY RESEARCH GRANTS

| # | Project Title | PI | Department | Grant Type |
|----|---|-----------------------|------------|--------------|
| 1 | Impact of coastal (long shore) currents on erosion/deposition and consequent water/sediments quality variations along the coastal area of Abu Dhabi City. | Waleed Hamza | Biology | Centre-Based |
| 2 | Identification and Characterization of the Black Scorch Disease on Date Palm (<i>Phoenix dactylifera</i>) in the Emirate of Abu Dhabi | Synan Abu Qamar | Biology | UPAR |
| 3 | Evaluation of the genetic and structural variations of camel hemoglobin | Ranjit Vijayan | Biology | UPAR |
| 4 | Breeding biology, foraging ecology and conservation of seabirds in UAE | Sabir Bin Muzaffar | Biology | UPAR |
| 5 | Elucidation of the regulatory roles of Photosystem II extrinsic proteins in PSII damage repair and abiotic stress tolerance | Mayank Anand Gururani | Biology | Centre-Based |
| 6 | Impact of coastal (long shore) currents on erosion/deposition and consequent water/sediments quality variations along the coastal area of Abu Dhabi City | Waleed Hamza | Biology | Centre-Based |
| 7 | The discovery of natural plants exudates and resins with potential as anti-cancer agents | Yusra Al Dhaheri | Biology | Startup |
| 8 | Reusable visible fluorescence detections of cadmium ions in water utilizing molecular containers and nanomaterials | Nail Saleh | Chemstry | UPAR |
| 9 | Development and Characterization of Gas Analyzers of Commercialization Potential | Sayed Marzouk, | Chemstry | UPAR |
| 10 | Whole genome sequencing of novel pollutant degrading bacterial strains from UAE petroleum sludge | Syed Salman Ashraf | Chemstry | UPAR |
| 11 | Fate of chiral pharmacologically active compounds in domestic wastewater in the UAE | Mohammed Meetani | Chemstry | Centre-Based |
| 12 | Microbial production of lipid molecules with therapeutic applications | M. Kalim Akhtar | Chemstry | Startup |
| 13 | Geospatial Modelling For Carbon Sequestration In Palm-Tree Plantations: A Case Study From Abu Dhabi | Salem Essa | Geology | UPAR |
| 14 | Extreme pulses of past climate; lessons for prediction of future climate change | Ala Aldahan | Geology | UPAR |
| 15 | Geomechanical Characterization of Carbonate and Evaporite Rocks in Al Ain, Abu Dhabi Emirate, United Arab Emirates | Hasan Arman | Geology | UPAR |
| 16 | Geochemical investigation of the meta-sediments of the Masafi-Asima-Dibba area, U.A.E.: provenance, paleogeography and economic potential | Thomas James Fowler | Geology | UPAR |
| 17 | Geothermal Potential Evaluation in the United Arab Emirates (UAE) | Hakim Saibi | Geology | Startup |

| # | Project Title | PI | Department | Grant Type |
|----|---|--------------------------|-----------------------|--------------|
| 18 | Representations of infinite-dimensional groups, braid groups and quantum groups | Viktor Bodi | Mathematical Sciences | UPAR |
| 19 | Heat transfer characteristics of fluid flow over an oscillating permeable infinite long cylinder | Qasem Al-Mdallal | Mathematical Sciences | UPAR |
| 20 | Analytical Study of Fractional Sturm-Liouville Eigenvalue Problems | Mohammed Al-Refai | Mathematical Sciences | UPAR |
| 21 | Fixed Point Theorems and Applications to Fractional Differential and Integral Equations | Ahmed Saleh Al-Rawashdeh | Mathematical Sciences | UPAR |
| 22 | Geometry of Continued Fractions | Ho Hon Leung | Mathematical Sciences | Startup |
| 23 | On Infinite Dimensional Orthogonal Preserving Quadratic Stochastic Operators | Farrukh Mukhamedov | Mathematical Sciences | Startup |
| 24 | Fractional Systems and Some Applications in Real Life | Besma Ben Ali Khalfet | Mathematical Sciences | Startup |
| 25 | Properties of connected graphs and networks related to their resolvability and topological descriptors | Muhammad Imran | Mathematical Sciences | Startup |
| 26 | Delay Differential Models of Immune Response With Viral and Bacterial Infections in an Organism | Fathalla Ali Rihan | Mathematical Sciences | SQU-UAEU |
| 27 | Tuning Magnetic Nanoparticle Hyperthermia Using MRI Distributed Relaxation Model and Susceptibility Imaging | Bashar Issa | Physics | UPAR |
| 28 | Performing optical data processing with discrete solitons in two-dimensional waveguide arrays | Usama Al Khawaja | Physics | UPAR |
| 29 | Investigation of negative magnetization in $\text{Mn}_{0.5}\text{Zn}_{0.5}\text{GdxFe}_{(2-x)}\text{O}_4$ ferrite nanoparticles | Ihab Obaidat | Physics | UPAR |
| 30 | Perovskite Metal- Oxide- Semiconductor (MOS) Nanostructure for Plasmonic Nano-Laser | Adel Najar | Physics | UPAR |
| 31 | Design and preparation of high-efficiency solar cells based on halide perovskites | Maamar Benkraouda | Physics | Centre-Based |
| 32 | Coordinated multi-wavelength studies of Southern Hemisphere Gamma-Ray Burst (GRB) afterglows — Tests of energy injection and black hole binary merger as GRB progenitor models: Origins of GRBs | Aquib Moin | Physics | Startup |
| 33 | First-principle investigation of suitable materials for detection of CO_2 | Prof. Nacir Tit | Physics | Centre-Based |
| 34 | Growth of III-Nitride nanowires (InGaN, InAlGaN, and GaN) via low cost photoelectrochemical method for photonic applications | Dr. Adel Najar | Physics | Startup |

PUBLICATION IN TOP JOURNALS



The following faculty were honored during an award ceremony by the Vice Chancellor of UAEU, Prof. Mohamed Albaili, on 22 November 2016 for publishing their research in top scientific journals in 2014 and 2015.

Publication(s) in top ranked journals in 2014

Dr. Na'il Saleh (Chemistry)

Prof. Abdulrahman Fowler (Geology)

Publication(s) in top ranked journals in 2015

Prof. Amr Amin (Biology)

Dr. Rabah Iratni (Biology)

Prof. Alaa Salem (Chemistry)

Prof. S. Salman Ashraf (Chemistry)

Prof. Ala Aldahan (Geology)

Prof. Qasem Mdallal (Mathematical Sciences)

Prof. Usama Al-Khawaja (Physics)

Prof. Salah Nasri (Physics)

PATENT

Prof Usama Al Khawaja (Department of Physics) was awarded a patent titled “A Device For Performing Multiple Optical Operations In Communication Network”, which proposes a mechanism by which a number of useful all-optical operations, such as switches, diodes, and logic gates, can be performed with a single device. The device is made of an array of waveguides with generally constant separations apart from a certain region where the separations are modulated such that an effective reflectionless potential is obtained. There are several possible applications including computers and applications. A computer scanner using this technique is actively being explored.



INNOVATION AWARD

Dr Taoufik Ksiksi (Biology) and colleagues proposed a novel idea based on anomalous phase-based dielectric sensing, which is a simple, low-cost, low-power technique to continuously monitor the water content of the leaves and the stems of plants. This innovative concept was awarded the **2016 Chancellor's Innovation Award**. This approach would enable centrally optimized scheme for scheduling the watering cycles of crops and trees. In future, with this solution, they

hope to set up tree-tree communication networks, where each tree is aware of the health of the whole forest or the farm. This would facilitate the conservation of a very precious resource.





**GOAL 3: ACHIEVE
ACADEMIC EXCELLENCE**

HIGHLIGHTS OF THE DEPARTMENTS

BIOLOGY

- ★ The BSc program of the department underwent a periodic program review. The department is currently implementing the program improvement plan.
- ★ Undergraduate and graduate student intake is at an all time high.
- ★ The Department successfully organized an international conference titled “First UAEU Symposium on Biological Sciences: Genomics & Bioinformatics” between 13-15 November 2016.



- ★ Faculty members continue to be awarded several grants and published in top tier journals.

CHEMISTRY

- ★ Reaccreditation of the Chemistry program by the UK Royal Society of Chemistry (RSC) in January 2016. This is the second time our Chemistry program is reaccredited by the RSC.



- ★ The Chemistry and Biochemistry Programs recently underwent a rigorous review process by the Canadian Society for Chemistry (CSC) in order to meet a due re-accreditation requirements. The CSC team visited the Chemistry Department and its facilities between 19-21 March 2017. They praised both programs, faculty, and the HOD. It is anticipated to receive their final remarks soon.
- ★ As part of the UAEU innovation week, held between 20-26 November 2016, the Department of Chemistry launched the "Chemistry Innovation Lab" in the E4-1009 lab.
- ★ The Chemistry Department has secured grants in excess of AED 4 million for 2016-2017.

GEOLOGY

- ★ The Department successfully organized the 1st Middle East Geoscience Student Conference (MEGSC) and the 8th Imperial Barrel Award (IBA) Competition. A UAEU team achieved the second place at the IBA Competition and a student oral presentation won the 3rd prize in the student oral presentation competition of the MEGSC.



- ★ A number of Geology students were competitively selected to spend their internship at Japan. This internship program was started in 1993 and is organized by the Japan Oil Development Company (JODCO).
- ★ Several students were encouraged to participate in international conferences and local field trips.

MATHEMATICAL SCIENCES

- ★ Courses outlines were revised in light of the periodic program reviewers' comments. The course learning outcomes were also revised and course objectives were added to all courses outlines.
- ★ The Department has made extensive effort toward student recruitment in order to increase students enrollment.
- ★ The Department organized the 13th UAEU-Math Day for High School students on 19 April 2017 (Male) & 24 April 2017 (Female).



PHYSICS

- ★ The Department successfully organized the “Conceptual Physics Activity Day” and the “Physics Fun Reading Day” which were well-received by everyone.
- ★ Physics student Ms Noura Rashed Balabda Al-Shamsi, supervised by Prof. Nouredine Amrane, won a prestigious Award for “Continuation and Innovation” from the Ministry of Infrastructure.
- ★ The Department organized a brainstorming session to discuss the Department’s future directions in recruitment, teaching, and research.



- ★ Faculty members received several grants and a number of students continue to be engaged in research projects.

REVIEW OF CURRICULUM

BIOLOGY

The Department of Biology's BSc program underwent a periodic program review (PPR) last year. In response to the reviewer's feedback, the Department has set in motion a program improvement plan in a phased manner. One of the major suggestions was to transform the current 3 track BSc program to two tracks. Committees have been formed to evaluate and design these two tracks keeping in mind the vision of the university and the requirements of the country. Smart learning and current pedagogical approaches will also be incorporated into these tracks.

CHEMISTRY

The Department's academic affairs committee prepared two proposals to modify the Chemistry and Biochemistry curricula.

The proposals involved removing the 18 CH compulsory minor requirement from the BSc programs. The proposals aimed to streamline the Updated Chemistry and Biochemistry curricula was approved in the academic year 2014-2015. This aimed to address shortcomings in the current curricula observed over the past decade. Other curriculum components (i.e., College Requirements, General Education Requirements and Internship) remain unchanged. The proposed changes will not impact the programs names, objectives or admission requirements.

GEOLOGY

The Department of Geology plans to merge the presently offered two programs tracks into a single program track with a BSc degree in geosciences. The main reason for this step is to offer the students both enough specialty subjects' coverage and depth that was not possible with the program structure as two tracks. Additionally, the two tracks program structure resulted in discriminated patches of students without academically relevant motivation and without a logical scientific background. The reflection from the students was also strongly positive as they feel that they are not getting adequate geoscience education with the present two tracks program structure. It is therefore agreed by all the department faculty members that a single track program will focus the students in the subject and give them comprehensive education to graduate with a solid geoscience degree. The single track program will have coverage amenable to allow the graduate to serve in all jobs of geosciences or to continue in the postgraduate education.

MATHEMATICAL SCIENCES

The Periodic Program Review (PPR) of the BSc program was conducted and reviewers report was received. The Department carefully considered the evaluators comments and recommendations and is currently aiming to implement the recommendations as part of the program improvement plan. This includes increasing the number of credit hours allocated to mathematics major compulsory and elective courses as well as free

elective courses. The Exit Exam will now be mandatory for all BSc students with 10% of the Research Project grade allocated to this.

PHYSICS

The new BSc curriculum was adopted and started in Fall 2016.

The curriculum committee is currently addressing the recommendations of the periodic program review for possible improvement of the program. A new proposal has been discussed in the department on how to implement the new changes. Further approvals by the College of Science and the University will be under way.

The curriculum committee was actively involved in the CAA review of the BSc Physics Program. A thorough self-study report on the BSc program was prepared to explore the different elements of the physics department that are contributing to the success or shortcomings of the program.

The department is preparing a proposal for a new version of the MSc program. Tracks like Space Science and a non-thesis option are being considered.

BENCHMARKING

BIOLOGY

Benchmarking against biological programs of leading universities is currently being done while designing the two track program recommended by the periodic program review. Individual courses are also being benchmarked against similar courses from leading universities around the world as part of continuous program improvement.

CHEMISTRY

The Chemistry and Biochemistry programs were benchmarked against five universities accredited by WASC. The Universities chosen for the Chemistry program were University Hawaii at Manoa, Stanford University, San Francisco State University, University of California Los Angeles, and University of California Riverside. The universities chosen for the Biochemistry program were University Hawaii at Manoa, Mount St Mary's University Los Angeles, San Francisco State University, University California Los Angeles, and California State University, Long Beach.

GEOLOGY

The Department of Geology has included in its new one track program plan the Seismology and Seismic Risk Analysis and to make use of the Seismology Data Center.

MATHEMATICAL SCIENCES

Benchmarking with other universities at the regional and international level was conducted for the undergraduate program.

The PhD program was compared with similar program offered by other international universities such as University College London, University of Florida, and University of Delaware.

PHYSICS

The department has benchmarked its MSc and PhD programs with leading international graduate programs.

ACCREDITATION

CAA accreditation

The College of Science actively supported the University's efforts in seeking CAA accreditation. All the Departments and its program committees were actively involved in preparing the self study report for the CAA. The College also hosted the CAA site visit during this year and is now awaiting feedback from the reviewers for possible updates to its programs.

BIOLOGY

The Department of Biology has setup a committee to look into the processes and procedures involved in being accredited by The Society of Biology, UK. Furthermore, the department is also considering the accreditation of the MSc (Environmental Sciences) program.

CHEMISTRY

The Chemistry and Biochemistry Programs underwent a rigorous review process by the Canadian Society for Chemistry (CSC) in order to meet a due re-accreditation requirements. The CSC team visited the Chemistry Department and its facilities in March 19, 2017 through March 21, 2017. They met with the Provost, Dean of Science, Chairman of the Department, and faculty separately and collectively. They toured our teaching and research laboratories. They also

met with the both Chemistry and Biochemistry Programs coordinators. They met with the staff and instructors. They praised the programs, faculty, and the Chairman. It is anticipated to receive their final remarks soon.

GEOLOGY

The restructuring of the Geology programs will strengthen the accreditation position that the department has initiated.

MATHEMATICAL SCIENCES

The Department of Mathematical Sciences is preparing for a full international accreditation.

PHYSICS

The search for a suitable accreditation body is currently underway.

COLLEGE EXCELLENCE AWARD

The following faculty members have won the competitive College Award for Excellence 2016-2017 considering their outstanding contribution to teaching or scholarship.

TEACHING



Dr. Yasser Griesh
Chemistry

SCHOLARSHIP



Dr. Synan AbuQamar
Biology

ACADEMIC PROMOTION

The following faculty members were promoted to the rank of Professor:

Dr Taoufik Ksiksi (Biology)
Dr Rabah Iratni (Biology)
Dr Fathalla Rihan (Mathematical Sciences)
Dr Kanat Adbukhalikov (Mathematical Sciences)
Dr Ahmed Hassan (Physics)

The following faculty members were promoted to the rank of Associate Professor:

Dr Ranjit Vijayan (Biology)
Dr Bayan Al-Dabbagh (Chemistry)
Dr Abdessammad Tridane (Mathematical Sciences)



AWARDS RECEIVED BY FACULTY MEMBERS

RASHID BIN HUMAID AWARD FOR CULTURE AND SCIENCE COMPETITION

Dr. Khaled El-Tarabily (Biology) won the first place at the **Rashid Bin Humaid Award for Culture and Science Competition Round 33 (2016)** in the field of Environmental Sciences. The theme of the research was the application of seaweed extract and plant growth regulators producing bacteria to promote the growth of *Salicornia bigelovii* in the United Arab Emirates under greenhouse and field conditions.



CHANCELLOR'S AWARD FOR INNOVATION

Dr Taoufik Ksisi (Biology) and colleagues were awarded the first place in the 2016 **Chancellor's Award for Innovation**.



CHALLENGE FOR INNOVATION COMPETITION

Dr. Yaser Greish (Chemistry) achieved the 5th place in the **Challenge for Innovation Competition** that was organized by the UAEU Science and Innovation Park Business Incubator. 85 teams applied initially, and after several rounds of competition, 10 were selected as winners. The first 5 received seed funding, and his team was one of them.



BEST RESEARCH PAPER

Dr. Saber Hussein (Geology) won the best research paper at the **5th Annual International Conference on Geological and Earth Sciences (GEOS 2016)**, held in Singapore between 10-11 October 2016.



MINISTRY OF EDUCATION HONORS PROF. MUHAMMED SYAM

The Ministry of Education honor **Prof. Muhammed Syam** (Mathematical Sciences) for his efforts with adoption of Mathematics book for the public schools.



STUDENT AWARDS SUPPORTED BY FACULTY MEMBERS

CONTINUATION AND INNOVATION AWARD

Ms Noura Rashed Balabda AlShamsi, supervised by **Prof. Noureddine Amrane** (Physics), received the **Award of “Continuation and Innovation” from the Ministry of Infrastructure** on 24 November 2016 for the project “Producing energy by walking”.



IMPERIAL BARREL AWARD COMPETITION

A team comprising of five Geology Department students - Mr. Ahmed Bahaa, Mr. Said Khouya, Mr. Ali Al Muntaser, Mr. Kamal Vakhi-dov and Mr. Falah Sheikh – won the second place at the **8th Imperial Barrel Award Competition (IBA) 2017** of the Middle East Region organized by the American Association of Petroleum Geologist (AAPG). Seven universities from the Middle East participated in this competition.



UAE UNDERGRADUATE RESEARCH COMPETITION

Physics students Ms. Munia Saber Al Dubhani, Ms. Bashayer Rashed Al Yileili and Ms. Rasha Wadia Mohamed and Engineering student Ms. Mona Megahed, supervised by **Prof. Saleh Thaker** (Physics), won the second place at the **5th UAE Undergraduate Research Competition** held at Abu Dhabi University on 8 May 2017.

MESGSC CONFERENCE

Ms. Khayreyya Al Awadhi participated in the oral presentation competition organized by the **Society of Exploration Geophysicists (SEG)** between 26-28 February 2017 where she won the third place.

BEST STUDENT RESEARCH PAPER

A group of Department of Geology female students won the best research paper during the **7th International Conference on Emerging Trends in Scientific Research (ICETSR-28)** held on 15-16 October 2016 in Dubai, UAE.





GOAL 4: SERVE THE SOCIETY

CONFERENCES

FIRST UAEU SYMPOSIUM ON BIOLOGICAL SCIENCE: GENOMICS & BIOINFORMATICS

November 13-15, 2016



The Department of Biology, College of Science and Khalifa Center for Genetic Engineering and Biotechnology organized a symposium on Genomics and Bioinformatics under the patronage of His Excellency Prof. Mohamed Albaili Vice Chancellor of UAEU. The Symposium was held at UAEU during the period 13-15 November 2016 with generous support from Ministry of Presidential Affairs (MOPA).

The aim of this symposium was to provide an update on the most recent findings in the field of genomics and bioinformatics. Several leading experts from all around the world participated in this symposium. Over 120 papers were submitted to the Symposium and it also included two popular workshops. The symposium also witnessed a large student turnout and widely appreciated by the presenters and participants.

FIRST MIDDLE EAST GEOSCIENCE STUDENT CONFERENCE (MEGSC)

February 26-28, 2017



The Geology Department organized the 1st Middle East Geoscience Student Conference (MEGSC), and the 8th Imperial Barrel Award Competition 2017 (IBA) of the Middle East Region in cooperation with the American Association of Petroleum Geology (AAPG), the European Association of Geoscientists and Engineers (EAGE) and the Society of Exploration Geophysics (SEG). The competition was held at United Arab Emirates University between 26-28 February 2017. Seven universities from the Middle East participated in the competition. The UAEU team achieved the 2nd place in this international competition.

Post Conference Field Trip

The Geology Department also organized a field trip for participants of the MEGSC on 1 March 2017. A team comprising of Prof. Hassan Arman, Dr. Osman Abdelghany, Dr. Abdelrahman Fowler, Dr. Mahmoud Abu Saima and Dr. Saber Hussein guided 50 conference participants to Jabal Hafit and explained the main geological features in the area.

Seven Universities Visited Geology Department Labs

Seven universities that participated in the conference visited several Geology laboratories. Dr. Khalid Al Bloushi, Head of the Geology Department accompanied them along with a number of faculty members and students. Dr. Khalid provided a brief explanation about the importance of each laboratory and its scientific capability.

COS DISTINGUISHED LECTURE SERIES

| Date | Speaker | Title |
|------------|--|--|
| 16/11/2016 | Prof. Lincoln D. Carr Colorado School of Mines, Colorado, USA | The Next Quantum Revolution |
| 23/11/2016 | Prof. Geoffrey Mitchell Institute Polytechnic of Leiria, Portugal | Opportunities with Direct Digital Manufacturing |
| 30/01/2017 | Prof. Christina Falzia President, EU-GCC Cooperation Partnership Program | Prospects of European Research and Trends of Science and Technology after 2020 |



SCIENCE DIALOGUES

The Science Dialogues organized by the College of Science provides a platform for discussing contemporary issues related to Science. The series, initially launched with 3 dialogues in Fall 2016, successfully organized several dialogues in Spring 2017 as well.

| Dialogue # | Date | Title |
|------------|------------|---|
| 1 | 18/10/2016 | The Role of Mathematics and Physics in Building Civilizations |
| 2 | 14/11/2016 | Non-Oil Mineral Resources of the UAE |
| 3 | 07/12/2016 | Information Technology in Science |
| 4 | 15/01/2017 | Effect of Basic Science on Humanities Sciences |
| 5 | 07/02/2017 | Happiness and Positivity in Academic Work |
| 6 | 06/03/2017 | The Role of Women in Science |
| 7 | 21/03/2017 | Electronic Reading: Challenges and Future |
| 8 | 17/04/2017 | Giving in Academic Work |



SEMINARS AND WORKSHOPS



| Date | Speaker/Organizer | Title |
|-------------------------|---|--|
| 19/10/2016 & 23/10/2016 | TPA Series Workshop | Development of sustainable energy alternatives |
| 04/12/2016-06/12/2016 | Dr. Nodirjon Rasulov Camfil Middle East, Dubai | Indoor Air Quality and its Health Effects |



YEAR OF READING AND HAPPINESS IN A BOOK CAMPAIGN

In response to the nation’s “Year of Reading”, the College launched several initiatives. The College Science Library was launched on 16 October 2016 with a wide collection of national and international books and journals supplied by the University Libraries Department and the Decision Making Support Center at the Dubai police.

Several events were also organized as part of this campaign.

| Date | Event |
|------------|--|
| 27/10/2016 | Reading and Innovation: A Brainstorming Session |
| 17/11/2016 | “Happiness in a Book” campaign launched by His Excellency Sultan Al-Haji, Vice President of Total Exploration and Production and the Chairman of the College of Science Advisory Board |
| 05/12/2016 | College distributed a collection of books in partnership with the student Watani Al Emarat Club. |
| 23/01/2017 | Several books were distributed to students to encourage reading |
| 05/03/2017 | Chemical readings |
| 07/03/2017 | Scientific Reading of the Student: Reality and Challenges |
| 19/03/2017 | Reading about natural phenomena |





SCHOOL VISITS

BIOLOGY

The Department of Biology hosted several schools during this academic year. School students were shown around Biology Labs and received an opportunity to view and engage themselves in various experiments. The schools that visited the Department are: Vision School Ibn Khaldoun School (male students), and Ibn Khaldoun School (female students).

CHEMISTRY

Several schools visited the Chemistry Innovation Lab organized on 2-3 November 2016. Students of the Department took an active part in demonstrating to school girl students and guests different innovation educational activities in Chemistry including some fun Chemistry games.

GEOLOGY

The Geology Museum and Laboratories received more than 5 public and private high school visitations totaling over 200 students. These visits were conducted to inform students and teachers about the scope and importance of the geosciences. The visitors were very impressed by the scope of the Geology museum collection and geology labs. The museum has a good collection of minerals, rocks samples and fossils for teaching purposes.

MATHEMATICAL SCIENCES

Department of Mathematical Sciences represented the College of Science at the Universities Exhibition organized by Career and Academic Counselling Department of the Ministry of Education. In this outreach activity, faculty members visited three high schools in Dubai, where the exhibition took place, and presented to students, from different high school about all possible majors and disciplines that the College of Science offers. These meeting were an opportunity for faculty members to engage in a discussion with students on the importance of science in building the nation and different careers that science majors could have after graduation. The Department also gave a workshop to Al-Maseera school during the spring break about peer instruction.

PHYSICS

Several schools visited the Physics Fun Lab at including Al Zayed School for Secondary Education, the Al Naeem Secondary school, and the Ibn Khaldoun Islamic School.



CHEMISTRY INNOVATION LAB

As part of the UAEU Innovation Week, the Department of Chemistry launched the “Chemistry Innovation Lab” on 22-23 November 2016. Her Excellency Sara Amiri, chairwoman of the Emirates Scientists Council and Prof. Mohamed Albaili, Vice Chancellor of UAEU opened the Chemistry Innovation Lab in the presence of Prof. Ghaleb Al Hadrami, Deputy Vice Chancellor for Academic Affairs and Provost; Prof. Ahmed Murad, Dean of College of Science and Dr. Mohamed Alazab, Chairman of the Department of Chemistry. Dedicated to innovative Chemistry exhibits and activities, the Lab was a great success in which male and female students took equal part in the activities. Three schools from Al Ain area visited the Lab on the first day which was dedicated to male student participants. On the second day, the Innovation Lab was organized by female students who demonstrated to school girl students and guests various innovative educational activities in Chemistry including several fun Chemistry games.





CONCEPTUAL PHYSICS DAY

The Department of Physics organized the “Conceptual Physics Activity Day” on 29 November 2016. Around 180 students, enrolled in the general education course “Conceptual Physics”, presented their Physics projects to the University’s community. The students showed great enthusiasm and fascination for Physics.

PHYSICS FUN READING DAY

The Department of Physics organized “The Fun Reading Activity” on 12 October 2016, in the Fun Physics Laboratory. The event was attended by Prof. Ahmed Murad, the Dean, faculty and staff of the College of Science and a number of faculty and school students from several schools. This activity was held as part of the 2016 Reading Year initiative to reinforce the cultural and scientific awareness through reading. Students read about experiments from different branches of Physics such as Newton’s laws, optics, acoustics, electricity and chemical Physics. They then applied it practically to understand how the basic principles work in real life.



MATH DAY

8 (male)/15 (female) March 2017

The Mathematical Sciences Department organized the 13th Mathematics Day in the presence of a number of representatives from the Ministry of Education (MOE) and the Abu Dhabi Education Council (ADEC).

This event included lectures on smart and creative learning and innovation in mathematics presented by a group of professors at the Department and specialists from MOE and ADEC.

In addition, a Mathematics Olympiad was held for high school students where students were challenged to answer question at the International Mathematics Olympiad level. The event was also an occasion for the chair of the Department, Dr. Mohammed Al Hammadi, to have an open discussion with high school students on the importance of mathematics in the development of the UAE and to encourage them to join the mathematics program at UAEU.

At the end of the day, participants and faculty members participating in the event were honored. The Department also presented a series of scientific books to the specialists and teachers of the Ministry of Education and ADEC in conjunction with the year of reading.



SCHOOL WORKSHOP ON INNOVATION



Dr. Muna Bufaroosha (Chemistry) gave a workshop on innovation in “That Al Salasil” school in Al Ain for 2nd grade female students on 23 November 2016.

CONTRIBUTION TO THE EMIRATES SOIL MUSEUM

Dr. Khalid Al Bloushi, Dr. Abdelrahman Fowler and Dr. Osman Abdelghany from the Department of Geology participated and donated rock samples and fossils in the preparation of the Emirates Soil Museum. The opening ceremony was held on 5 December 2016 at the International Center for Biosaline Agriculture (ICBA), Dubai.



WORLD OZONE DAY

20 September 2016

On the occasion of the World Ozone Day, The Media and Communications Department organized a lecture by Dr. Mahmoud Abu Saima, Department of Geology, for students about the importance of the ozone layer. He explained the importance of the ozone layer, and how to protect it and avoid negative environmental impacts from the hole in the ozone layer.



WORLD WATER DAY

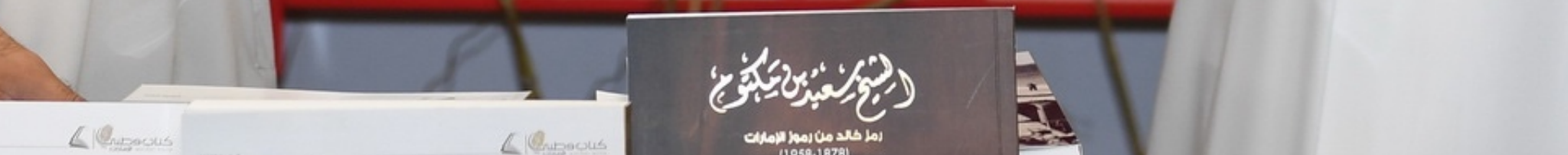
22 March 2017

Celebrating the World Water Day, faculty and students from the Geology Department organized a Water Exhibition. Experiments were set up to determine the quality of water for drinking, domestic use and agriculture.





GOAL 5: HIGH QUALITY ADMINISTRATIVE SERVICES



MEETING OF THE COLLEGE ADVISORY BOARD



The College of Science advisory board consists of the Chancellor and Deputy Vice Chancellor for Academic Affairs (Provost) of UAE University, Acting Dean of the College of Science and several prominent leaders of the industry, governmental institutions and the community.

The Advisory Board of the College of Science held its fourth meeting on October 10, 2016 at the Innovation Lab in the Crescent building. The key theme of the meeting was the “Pursuit for Happiness” initiative. The Board was provided an update on the accomplishments of the College and its Departments. The board meeting discussed revisions of this year’s plan, in line with national trends, with plans to include initiatives for happiness, positivity and foreseeing the future. The Advisory Board members praised the achievements made by the College in the previous academic year. The Board also congratulated UAE University and the College on the reaccreditation of the Department of Chemistry by the Royal Society for Chemistry.

The Advisory Board of the College held its fifth meeting on May 15, 2017. The Chair of the Advisory Board, Dean of College of and several members of the board were present. The meeting reviewed the tasks which were assigned to the College along with the progress and achievements of the College. The meeting also discussed in detail the job market and the proposal of foresighting the COS along with happiness and positivity which was presented by Dr. Mohammed Murad Abdulla – a member of the Advisory Board.

HAPPY COLLEGE INITIATIVE

On 4 December 2016, the College of Science launched the 'Happy College' program. The program aims to create a happy and stimulating working and learning environment to boost creativity and innovation in the college. The launch was attended by the Happiness and Positivity Team in the University, and faculty, staff and students of the College.

As part of this initiative, the College organized a scientific visit for its administrative staff to the Sheikh Zayed Desert Learning Center at the Al Ain Zoo.

Several events were organized throughout the year in support of the Happy College initiative.

Meeting to Discuss Ideas

26 January 2017

The Happy College initiative kicked off with a meeting to discuss ideas presented by the staff to encourage happiness in the workplace and to translate this to increased productivity within the College by strengthening social ties between its members.



Hour of Positivity and Happiness

2 February 2017, 27 April 2017 & 18 May 2017

The goal of this initiative is to promote happiness in the College by enjoying an hour of rest and away from the pressures of work by practicing healthy exercises and activities.



The First Cultural Day of the College

22 February 2017

The College held its first ever cultural entertainment day, which included several events including sporting activities and rope-pulling competitions.

Lecture on Healthy and Happy Environment

8 March 2017

This lecture was delivered by Dr Mansour Anwar Habib from du.



Happy Reading

9 March 2017

College staff read books about happiness and a summary was presented to the audience. This event brought together the College's Reading and Happy College initiatives.



Launch of Happiness Majlis

20 March 2017

The Happiness Majlis was launched as a dedicated room allocated for small meetings and a place for brainstorming between students and faculty in a happy and healthy work environment.





STUDENT ACTIVITIES

BIOLOGY

EAD SCI Student-Mentor Conference

9 March 2017



A team of undergraduate students supported by Dr. David Thomson participated actively in the EAD SCI Student-Mentor Conference. The event was organized by the Environment Agency Abu Dhabi – Sustainable Campus Initiative.

Media Appreciation Day

22 March 2017

The Biology Department was prominently represented at the Media Appreciation Day organized by the MCD. Dr. David Thomson and his students had a poster, an interactive slide-show, and a living display showcasing their research on 'The Ecological Impacts of Climate Change in Hot Regions – Prospects for the UAE'.

Meet a Scientist

19 April 2017



The Biology Club has initiated a “Meet a Scientist” series that provides an opportunity for students to participate in conversations with people who are engaged with science in their work. The first talk was given by Dr. Dareen Al Mojil who received her PhD from the University of Cambridge, UK.

Workshop on “Understanding and Coping with Stress in Changing World”

24 April 2017



Organized by the Biology Club, this engaging workshop was delivered by Dr. Alia Al Serkal who is the Senior Director for Talent Management and National Development at du.

CHEMISTRY

Scifinder workshop

21 September 2016



Two orientation sessions were organized to introduce graduate and undergraduate students as well as faculty members to the database “Sci-finder” by Mr. Akram Aljaffan from Techknowledge, Dubai on 21 September 2016. SciFinder provides researchers with unlimited access to the world’s largest and most reliable collection of Chemistry and related science information. It includes information on substances, reactions, and patent and journal references produced, compiled, and updated daily by CAS (Chemical Abstracts Service) scientists around the world.

Chemistry Club Orientation Day (“Think like a Proton and Stay Positive”)

12 October 2016



This was an event organized to introduce the Department of Chemistry to female school students and female foundation program students in or-

der to attract them to both the Chemistry and Biochemistry programs provided by the Department.

Basic Emergency Response Course by SANID

22-26 January 2017



Chemistry Department female students took part in a Basic Emergency Response Course given by SANID organized by the Chemistry Department and the student activities committee.

Visit to Dubai Police

1 March 2017

15 female senior students from the Chemistry Department visited the forensic lab at Dubai Police. They received a first-hand view of the state-of-the-art facilities and laboratories.

GEOLOGY

Magnetotelluric Survey and Workshop

6 June 2017



A team from the Geology Department, including faculty and students, along with Prof. Maxim Smirnov, a geophysicist at the Luleå University of Technology, Sweden, conducted a magnetotelluric survey in Mubazzrah area in Al Ain. The project aimed to identify the region's hot water reservoir, the quantities and depth of the water, and the extent to which it can be used as alternative sources for the generation of electricity. Following this, a workshop was held on magnetotelluric methods which included an introduction to the method, its diverse uses, data processing and interpretation.

Geology Students Present SURE Project at International Conferences



Mr. Said Khouya presented at the 4th International Conference on Geology and Geoscience, 27-28 April 2017 in Dubai. He presented the results of his 2016 SURE project supervised by Dr. Osman Abdelghany and Dr. Mahmoud Abu Saima. Ms. Kholoud Youssef gave presentations at UAEU Annual Undergraduate Students Research Conference, 2 May 2017. and the 5th United Arab Emirates Undergraduate Research Competition held at Abu Dhabi University, Abu Dhabi on 8 May 2017. Mr. Mohamed Qadri gave a presentation at the 4th International Conference on Global Warming from 3-5 April 2017, RAK and won a laptop.

MATHEMATICAL SCIENCES

Trip to Daman Health Insurance Company

14 March 2017



The Math Club organized a visit to Daman Health Insurance company's headquarters in Abu Dhabi. Mr. Yousef, the CFO of Daman, gave a presentation about the history of the company. Mr. Benedict then explained more about the actuarial section of Daman and the need of mathematicians for insurance and risk assessment, and how actuaries could use patterns and data to predict the future. Finally, a workshop was held where the students got an opportunity to meet representatives from several departments and to ask questions and explore job opportunities provided by Daman.

PI Day

22 March 2017

The Math Club organized an event titled "PI" Day, where they invited the Mathematical Sciences Department consisting of faculty members, staff, and students to celebrate PI day together and to make real pies in the food preparation lab.

Pies with different fillings were made by students along with faculty members who joined in and helped. Students enjoyed bonding with the faculty members outside the classroom atmosphere which was the club's goal to ease commu-

nication and further interactions between students and faculty members to create a healthy student/teacher relationship.

Gifts were handed to the guests with tiny PI-related information.

Student Research Project Showcase

9 May 2017



The Mathematical Sciences Department organized a student research project presentation day. These projects represent a semester's work of students under supervision of three faculty mentors from the departments. Each group presented their project and answered question from the examination committee. At the end, the Department honored students for their performance and achievement.

PHYSICS

Visit to the Nobel Museum

26 February 2017



Under the supervision of Prof. Noureddine Amrane (Physics), students visited the Nobel Museum in Dubai. During this visit, students learned about the history and laureates of the Nobel Prize.

Internship Day

23 March 2017



50 internship students from the departments under the College of Science received an opportunity to know more about the research facilities and equipment in the Physics Department. Students showed great interest and enthusiasm during the demonstrations.

Annual Report Committee

Produced by Dr. Ranjit Vijayan

Dr. Ranjit Vijayan (Biology) (Coordinator)
Dr. Bayan Al-Dabbagh (Chemistry)
Dr. Osman Abdelghany (Geology)
Dr. Fathalla Rihan (Mathematical Sciences)
Dr. El Hadi Sadki (Physics)



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