

## **ANNUAL REPORT** 2017 - 2018



جامعة الإمارات العربيـة المتحدة United Arab Emirates University





TABLE OF CONTENTS

2

Goal 1: Prepare Pioneering Graduates

Goal 2: Develop Scientific Research Capacity and Innovation

Goal 3: Achieve Academic Excellence27

14

21

40

Goal 4: Serve the Society

Goal 5: High Quality Administrative Services

54

**Student Activities** 

57

## THE COLLEGE

## DEAN'S MESSAGE

I am pleased to write this introductory message of the College of Science Annual Report for academic year 2017-2018 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. 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 leader-ship 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

## ADVISORY BOARD



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Prof. Ahmed Ali Murad Dean, College of Science United Arab Emirates University



Mr. Yousuf Abdulla Al-Bastaki Executive Vice President Emirates Global Aluminium

## STRATEGIC PARTNERS





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مــجـلـس أبـــوظـبـــي للــجــودة والــمـطابـقــة ABU DHABI QUALITY AND CONFORMITY COUNCIL



المركز الوطنرے لأرصاد الجوية والزلازل National Center of Meteorology & Seismology







## **COLLEGE ADMINISTRATION**



Prof. Ahmed Ali Murad Dean



Dr. Asma Al Menhali Vice Dean



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



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

## **HEADS OF DEPARTMENT**



Dr. Khaled Amiri BIOLOGY



CHEMISTRY



Dr. Mohamed Alazab Alnaqbi 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 2017-2018

The **College of Science** was awarded the **Chancellor's Award for Institutional Excellence** in the Distinguished College category.

The College actively organized several events to mark the **Year of Zayed** and launched initiatives such as **The Year of Zayed Permanent Exhibition**, **The Year of Zayed Library** and **The Year of Zayed Dialogues**.

Members of the College published over 200 research articles in the academic year 2016-2017. 10 faculty members received awards for publishing in top 10% journals.

Students received several awards at local and regional conferences.

The **Chemistry BSc program was re-accredited** by the Canadian Society of Chemistry.

COS and its departments organized leading international conferences like the **Fourth International Conference on Engineering Geophysics Mars Symposium** and **Groups, Group Rings, and Related Topics – 2017.** 

Students were actively involved in organizing popular events like **SpaceConnect** and **ChemLeap**.



## **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 recently 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 fullfledged 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

#### MATHEMATICAL SCIENCES

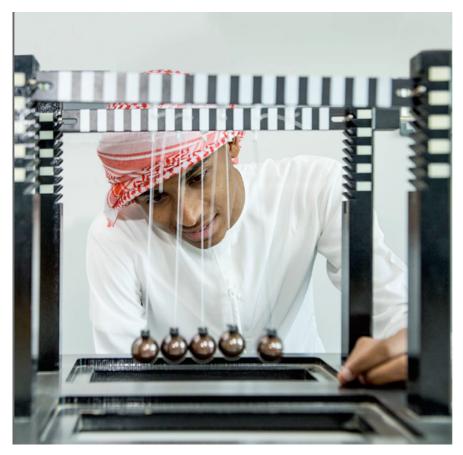


The Geology Department is committed to providing students with a comprehensive knowledge of modern theory and geotechnical skills in a range of pure and applied geoscience fields, as a firm foundation for their future professional activities. The management of the Earth's environment and finite resources 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.



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.

## CHANCELLOR'S AWARD FOR INSTITUTIONAL EXCELLENCE

The **College of Science** was awarded the **Chancellor's Award for Institutional Excellence (2017)** in the **Distinguished College** category. The award seeks to raise awareness of the culture of excellence, quality assurance and transparency, and to transform this into an essential component of the University's work environment.



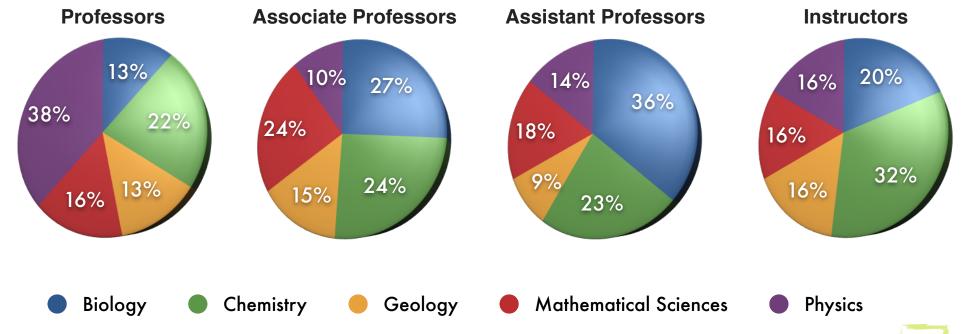
## 31 17 He THE PERIODIC TABLE OF THE ELEMENTS 6A 16 5A 15 3A 13 4A 14 Ne F C Ar C 7B 7 6B Kr Mn Tc Xe Rn Iuo Re C Bh I V Ho 51 P 33 P GOAL 1: PREPARE

# PIONEERING GRADUATES



## FACULTY NUMBERS

Department	Professors		Assistant Professors	Visiting / Adjunct Faculty	Instructors	Total
Biology	4	11	8	0	5	28
Chemistry	7	10	5	2	8	32
Geology	4	6	2	0	4	16
Mathematical Sciences	5	10	4	4	4	27
Physics	12	4	3	1	4	24
Total	32	41	22	7	25	127

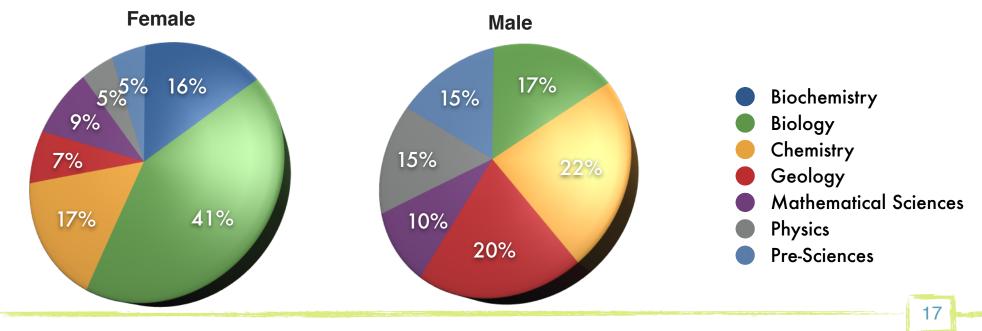




## UNDERGRADUATE STUDENT NUMBERS

Major	2015-2016		2016-2017		2017-2018	
	Female	Male	Female	Male	Female	Male
Biochemistry	90	0	120	0	183	0
Biology	324	8	372	16	452	25
Chemistry	144	61	156	56	189	32
Geology	120	47	88	36	80	28
Mathematical Sciences	84	12	78	9	101	15
Physics	21	19	20	19	52	22
Pre-Sciences	142	32	36	39	53	21

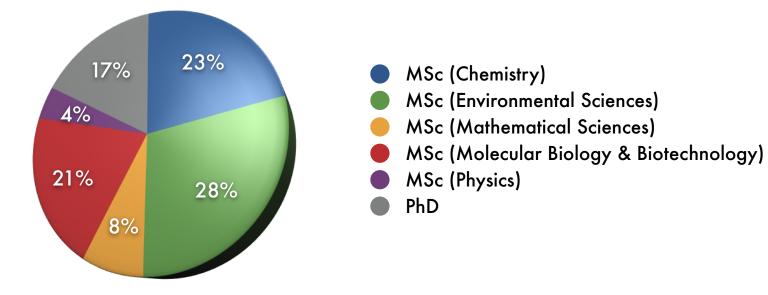
Undergraduate Students (2017-2018)





## **GRADUATE STUDENT NUMBERS**

Program	Number of students
MSc (Chemistry)	26
MSc (Environmental Sciences)	32
MSc (Mathematical Sciences)	9
MSc (Molecular Biology & Biotechnology)	24
MSc (Physics)	5
PhD (9 tracks)	19



## STUDENT EXPERIENCES

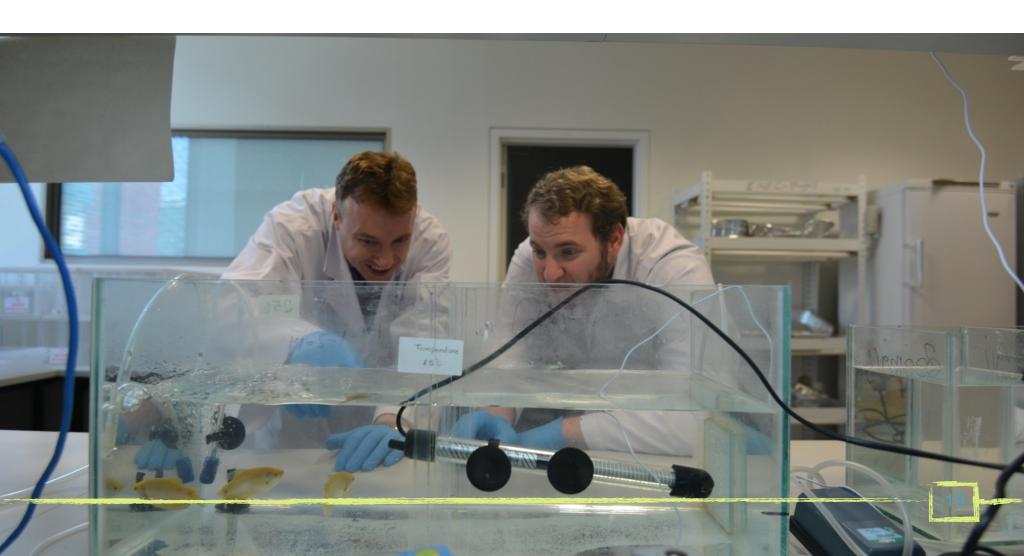
### Internship and international experiences

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).

## 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 2018

The College of Science received a record 37 Summer Undergraduate Research Experiences (SURE) Plus 2018 initiative awards. 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 2018-2019.

#	PI	Department
1	Mohammed Akli Ayoub	Biology
2	Ranjit Vijayan	Biology
3	David L. Thomson	Biology
4	Mayank Gururani	Biology
5	Taoufik Ksiksi	Biology
6	Sofyan Alyan	Biology
7	Ruwaya Al-kendi	Biology
8	Na'il Saleh Ibrahim	Chemistry
9	Abbas Khaleel	Chemistry
10	Syed Salman Ashraf	Chemistry
11	Alaa Eldin Salem	Chemistry
12	Iltaf Shah	Chemistry
13	Ahmed Alzamly	Chemistry
14	Mohammed A Almeetani	Chemistry
15	Yaser E. Greish	Chemistry
16	Thies Thiemann	Chemistry
17	Mohamad Toutounji	Chemistry
18	Hakim Saibi	Geology
19	Hasan Arman	Geology
20	Ala Aldahan	Geology
21	Sulaiman Ali Alaabed	Geology
	Alkaabi	
22	Osman Abdelghany	Geology

#	PI	Department
23	Muhammed I. Syam	Mathematical
		Sciences
24	Mohamed El Bachraoui	Mathematical
		Sciences
25	Muhammad Imran	Mathematical
		Sciences
26	Nafaa Chbili	Mathematical
		Sciences
27	Youssef Abdul Monehm El	Mathematical
	Khatib	Sciences
28	Qasem Mustafa Al-Mdallal	Mathematical
		Sciences
29	Ehab Malkawi	Physics
30	Maamar Benkraouda	Physics
31	Ihab Obaidat	Physics
32	Usama Al Khawaja	Physics
33	Aquib Moin	Physics
34	Mofreh Zaghloul	Physics
35	Nacir Tit	Physics
36	Haila M. Aldosari	Physics
37	Noureddine Amrane	Physics

## **BLENDED TEACHING & LEARNING**

The College of Science is keen on participating in the new Blended Teaching & Learning Course transformation. Blended Teaching & Learning is one of the critical initiatives aligned with the UAEU's mission to become the University of the Future.

Blended Course is any course wherein a portion of the face-to-face instruction is replaced by web-based online learning. This 'portion' could be anywhere from 30% to 70% of online work.

The following table shows a list of CoS courses that have been suggested by CETL and COS to be transformed to Blended Courses by having at least 30% of its content managed online instead of face-to-face.

Department	Course code	Course	Faculty involved
Biology BIOC100 Basic Biology I		Basic Biology I	Dr. Mayank Gururani & Dr. Ranjit Vijayan
Biology	BIOE240	Principles of Environmental Science	Dr. David Thomson
Chemistry	CHEM111	General Chemistry I	Prof. Salman Ashraf
Chemistry	CHEM112	General Chemistry II	Dr. Yaser Greish
Geology	GEOA250	Paleontology	Dr. Osman Abdelghany
Geology	GEOL105	Physical Geology	Prof. Hasan Arman
Mathematical Sciences	MATH115	Calculus for Business and Economics	Prof. Muhammed Syam
Mathematical Sciences	MATH120	Contemporary Applications of Mathematics	Dr. Youssef El-Khatib
Mathematical Sciences	MATH105	Calculus I	Dr. Abdessamad Tridane
Physics	PHYS101	Conceptual Physics	Dr. Ehab Malkawi & Dr. Adel Hashish
Physics	PHYS105	General Physics I	Prof. Naser Qamhieh
Physics	PHYS1110	Physics I for Engineering	Prof. Saleh Mahmoud
Physics	PHYS220	Thermal Physics	Dr. El Hadi Sadki



# **CAPACITY & INNOVATION**

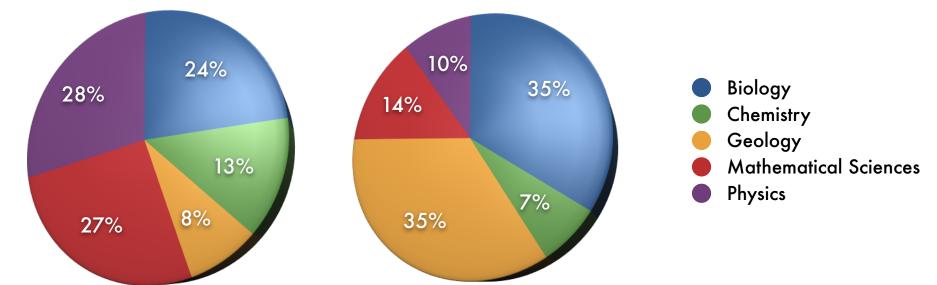
## PUBLICATIONS AND CONFERENCE PARTICIPATION

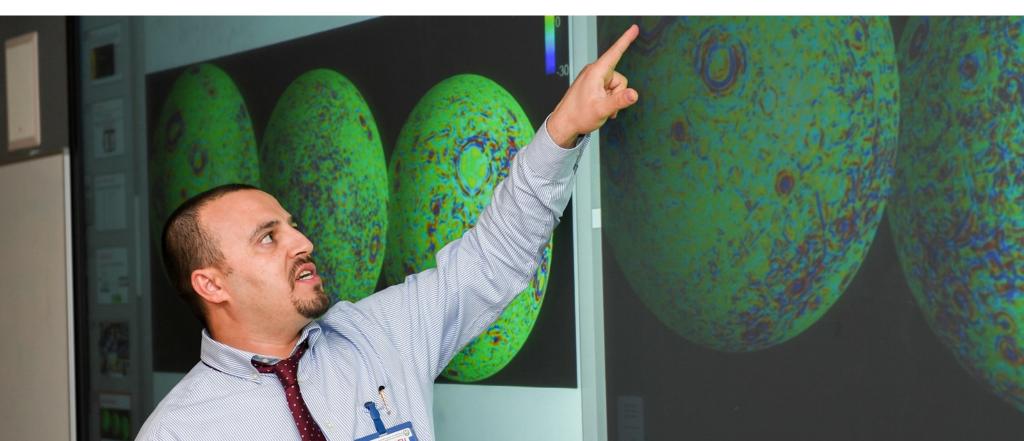
The college continues to undertake research of high caliber which are routinely published in leading international journals and presented at international conferences.

Department	Number of scientific research articles published in international journals	Number of scientific presentations at conferences
Biology	49	47
Chemistry	26	9
Geology	16	48
Mathematical Sciences	55	19
Physics	58	13
Total	204	136

**Journal publications** 

**Conference presentations** 





## UAE UNIVERSITY RESEARCH GRANTS

#	Project Title	PI	Department	Grant Type
1	Hf- Ta-, Re-based Ohmic Contacts to Germanium Telluride	Haila Aldosari	Physics	Startup
2	Recycling Carbon Dioxide: Photocatalytic Conversion of Carbon Dioxide to Fuels	Ahmed Alzamly	Chemistry	Startup
3	In vitro investigation of the molecular and cellular mechanisms involved in the hypoglycemic properties of camel milk	Mohammed Ayoub	Biology	Startup
4	Characterization of Quasi-Alternating Links	Nafaa Chbili	Mathematical Sciences	UPAR
5	Plasmonic Nano-Laser based on MOS Perovskite waveguide	Adel Najar		UPAR
6	Developing a novel biosensor as a high throughput analytical tool for monitoring the in vivo production of the anti-cancer drug, paclitaxel	Mohammed Kalim Akhtar	Chemistry	UPAR
7	Prototype Long-Wavelength Array Radio Telescope System: Testing & Development, Proof of Concept.	Aquib Moin	Physics	UPAR
8	Exact solutions of nonlinear Schrodinger equations	Usama Al Khawaja	Physics	UPAR
9	Fabrication and Characterization of Organic-Inorganic Nanofibrous Hybrid Gas Sensor for Petroleum Industry	Saleh Mahmood	Physics	UPAR
10	Theoretical and computational aspects of topological indices and characterization of extremal graphs	Muhammad Imran	Mathematical Sciences	UPAR
11	The role of spin canting and spin-glass structures on the anomalous and novel magnetic properties of Fe3O4/?-Fe2O3 core/shell nanoparticles	Ihab Obaidat	Physics	UPAR
12	Exploring an anomalous conductivity behavior in amorphous selenium films	Naser Qamhieh	Physics	UPAR
13	Group of units and Lie properties of group rings and crossed products	Mohammed AlHammadi	Mathematical Sciences	UPAR
14	Universal Constraints of Kleinian Groups and Hyperbolic Geometry	Jianhua Gong	Mathematical Sciences	UPAR
15	A microorganism-loaded on polymeric nanofibrous scaffold for the treatment of oil spills	Mohamed Alazab Alnaqbi	Chemistry	UPAR
16	Bacterial and physicochemical investigation of the household water quality in Abu Dhabi, UAE	Ruwaya Al Kendi	Biology	UPAR

#	ŧ	Project Title	PI	Department	Grant Type
1	with and I	agenomic Profile of the Bacterial Communities Associated Hyalomma dromedarii (Acari: Ixodidae) Ticks, Prevalence Mechanisms of Persistence of Pathogenic Bacterial cies in the UAE	Mohammad Al Deeb	Biology	UPAR
1	chem	essment of therapeutic effects of safranal against nically induced hepatocellular carcinoma: In vivo and In approaches	Amr Fawzy	Biology	UPAR

## PUBLICATION IN TOP JOURNALS



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

### Publication(s) in top ranked journals in 2016

Prof. Rabah Iratni (Biology) Dr. Synan AbuQamar (Biology) Prof. Salman Ashraf (Chemistry) Prof. Sayed Marzouk (Chemistry) Dr. Na'il Saleh (Chemistry) Prof. Ala Aldahan (Geology) Prof. Ala Aldahan (Geology) Prof. Fathalla Rihan (Mathematical Sciences) Prof. Salah Nasri (Physics) Prof. Usama Al-Khawaja (Physics) Prof. Mofreh Zaghloul (Physics)

## PATENTS

## Dr Khaled El Tarabily (Biology) and colleagues were awarded a US patent

Dr Khaled El Tarabily (Biology) and colleagues were awarded a United States patent for the invention "Date pit composition for the treatment of animals". An objective of the invention is to provide methods and compositions to treat and prevent bacterial infections in domestic animals. Another objective is to provide an alternative to conventional antibiotics to treat and prevent bacterial infections in domestic animals.

## Dr Adel Najar (Physics) was awarded a US patent

Title: Method of Making Gallium Antimonide near Infrared Photodetector

Gallium antimonide (GaSb) is of great interest in electronics and optoelectronics. GaSb thin films respond to a near infrared region of 2-5  $\mu$ m, which corresponds to a direct band gap of 0.72 eV. Due to this significant property of GaSb films, GaSb is used as a semiconductor material in the fabrication of photonic devices, such as photodetectors, laser diodes, thermophotovoltaic cells and optical communication devices. Although GaSb film-based devices are presently being manufactured, the

resultant devices are typically very expensive and have issues related to durability. The invention relates to the fabrication of near infrared photodetector for light based on gallium antimonide using physical vapor deposition-based method on a mica substrate.

## Yousef Al Jasem and Prof. Thies Thiemann (Chemistry) were awarded a GCC patent

Title of patent: System converting thermal energy into electrical energy.

Y. Al Jasem, T. Thiemann, US Pat. 20150179910 (A1) (UAEU)
June 25th, 2015 [Appl. Dec. 23, 2013] US Pat. Appl. 201314139292; Chem. Abstr., 2015, 163, 178132; WO 2015097646
(A1) WO Appl. 2014-IB67228; Chem. Abstr, 2015, 163, 95322;
GCC Pat. GC50005688 (Appl. 2014-28635).









## HIGHLIGHTS OF THE DEPARTMENTS

#### BIOLOGY

- ★ Undergraduate and graduate student intake is at an all time high. The Department now has the largest group of undergraduate and graduate students in the College.
- ★ Dr Khaled El Tarabily & Dr AbdulMajeed Saif Alkhajeh won prestigious Al Owais Creative Awards.



- ★ The Biology Club organized several events to engage the students.
- ★ 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 also received another prestigious international accreditation in 2017 by The Canadian Society of Chemistry.
- ★ 13 new MSc students were recruited last year and the program has 22 students currently enrolled.
- ★Launch of the Chemistry Museum on 7 February 2018.
- ★Launch of the Chemistry Innovation Hub (Chem Leap) on 18 February 2018.



★ Organization of the UAEU Chemistry Innovation Challenge "Chemistry Olympiad" on 5 February 2018.

## GEOLOGY

★ The Department launched the mobile Geology Innovation Lab during the Innovation Week.



- ★ 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

- ★ The Department organized the Second International Conference on "Groups, Group Rings & Related Topics - GGRRT 2017", held, in Khorfakkan Oceanic Resorts, Khorfakkan, UAE, November 19-22, 2017.
- ★ The Department organized the 1st Workshop on "Operator Algebra, Quantum Probability & Innovative Applications - OAQP-IA", February 7-8, 2018.
- ★ A number of undergraduate (12) students have been involved in SURE program and international conferences.
- ★ The Department organized the 14th Annual UAEU-Math Day for High School students, 14 February (Male) & 20 February (Female) 2018.



## PHYSICS

- ★ Professor Usama Al-Khawaja was the winner of Khalifa Award of Education – Category: University Professor distinguished in Scientific Research (11-th Cycle) – of this academic year 2017-2018.
- ★ The Department, in collaboration with the National Space Science and Technology Centre (NSSTC) at UAEU organized a very successful Symposium on the Planet Mars entitled: "Probing the Environment of Planet Mars: Past, Present Future of Our Next-door Neighbor in Space" on 9 November 2017.
- ★ As part of the efforts to strengthen a broadscope collaboration between UAE University and University of Colorado, Boulder, USA, a symposium on "Inspiring the Space Scientists of the Future" was organized as a joint venture by National Space Science & Technology Centre (NSSTC), College of Science (COS) and University of Colorado, Boulder.
- ★ The Department of Physics, College of Science organized a one-day student event called "SpaceConnect" on 19 March 2018, with additional support from NSSTC, UAEU.



★ 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) recently. 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 were formed to evaluate and design these two tracks keeping in mind the vision of the university and the requirements of the country. This has now been submitted for review and approval. Smart learning and current pedagogical approaches will also be incorporated into these tracks.

#### CHEMISTRY

The Department of Chemistry has submitted two proposals to modify its Chemistry and Biochemistry programs. The modifications are based on removing the compulsory minor components in both curricula and redistributing its 18 CH by increasing the compulsory specialization requirements from 42 CH to 48 CH, increasing the elective specialization requirement from 3 CH to 9 CH and increasing the supporting requirements from 12 CH to 18 CH. Other curriculum components (i.e., College Requirements, General Education Requirements and Internship) will remain unchanged. The proposed changes will not impact the program name, objectives or admission requirements.

These changes have received approvals from CAA as well as from RCS and CSC accrediting

bodies for the Chemistry Department. They have also been approved by the department's council and college's committee for academic affairs and awaiting to proceed to the University curriculum committee for approval.

#### 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 The reflection from the students background. 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 main development is along the track of Space Science. The Department, in collaboration with Space Center at UAE, is hiring 2 new Faculty members in this discipline to cover the teaching of Astronomy and Astrophysics courses, as well as courses in Space Science track.

## 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 hosted the CAA site visit last academic year and responded to the reviewers' comments. All the programs of the College have now been accredited by the CAA.

#### 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 Department successfully and remarkable obtained two important and prestigious international accreditations in 2016 and 2017. The Chemistry Department received a quite strong accreditation by Royal Society of Chemistry in 2016. The Department also received another prestigious international accreditation in 2017 by The Canadian Society of Chemistry. Both institutes of accreditation thought the Chemistry Department was a strong department and did not hesitate to recommend its second international accreditation.

#### GEOLOGY

The restructuring of the Geology programs will strengthen the accreditation initiative that the Department has initiated.

#### MATHEMATICAL SCIENCES

The Department has started the process to get international academic accreditation from ABET. The Department is working with the College and University Administrations and awaiting ABET feedback.

#### PHYSICS

ABET Accreditation of the BSc program has been targeted by the Department. A committee has been formed to prepare a submission by Fall 2018.

## COLLEGE EXCELLENCE AWARD

The following faculty members have won the competitive College Award for Excellence 2017-2018 considering their outstanding contribution to teaching, scholarship and service.

## TEACHING



**Prof. Mohamed Syam** Mathematical Sciences

### **SCHOLARSHIP**



Prof. Amr Amin Biology

SERVICE



Prof. Saleh Thaker Mahmoud Physics



Dr. Khaled El Tarabily Biology

## ACADEMIC PROMOTION

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

Dr Yaser Greish (Chemistry) Dr Victor Bodi (Mathematical Sciences)

The following faculty members were promoted to the rank of Associate Professor: Dr Muna Bufaroosha (Chemistry)

## AWARDS RECEIVED BY FACULTY MEMBERS

## SENIOR ABDUS-SALAM-ICTP ASSOCIATESHIP

Dr. Salah Nasri (Physics) received a 5-year ICTP Associate Award (2018-2023) from the International Center for Theoretical Physics in Italy. This is a highly competitive award given to scholars who have contributed significantly in the field of Particle Physics and Cosmology. He is the first physicist in the UAE to become an ICTP Associate. The Award will allow him to spend up to 45 days per year at the ICTP (with all expenses covered by the ICTP), where he will be attending and participating in different scientific activities (conferences, workshops, etc.) that will be hosted at the Center.

## JAPAN SOCIETY FOR PROMOTION OF SCIENCE VISITING FELLOWSHIP

Prof. Abbas Khalil (Chemistry) was awarded a one-month Visiting Researcher Fellowship from the Japan Society for Promotion of Science (JSPS) which was completed on 14 January 2017.

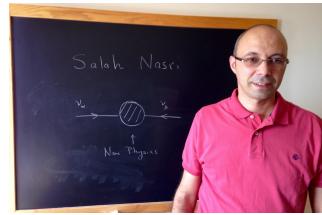
# KHALIFA AWARD FOR EDUCATION: UNIVERSITY DISTINGUISHED PROFESSOR IN SCIENTIFIC RESEARCH

Prof. Usama Al-Khawaja, Chairman of the Department of Physics, was the winner of the prestigious Khalifa Award of Education in the category: University Distinguished Professor in Scientific Research. The award ceremony took place at the Emirates Palace in Abu Dhabi on 16 April 2018. His Highness Sheikh Hamed

Bin Zayed Al Nahyan, Chief of the Abu-Dhabi Crown Prince's Court, honored the winners of the 11th edition of the Khalifa Educational Awards.







#### AL OWAIS CREATIVE AWARDS

Dr. AbdulMajeed Saif Alkhajeh (Biology) won the first place in the Al Owais Creative Award Round 25 for 2018 in the category "Best Research for National UAE Scientists in the field of Applied Studies (Agricultural and Food Sciences)". The title of the wining topic was: "Application of fish emulsion and beneficial hormone-producing bacteria to promote the growth of mangrove plants in the UAE".

Dr. Khaled El-Tarabily (Biology) won the first place in Al Owais Creative Award Round 25 for 2018 in the category "Best Research about the UAE in the field of Applied Studies (Agricultural and Food Sciences)". The title of the wining topic was: "Innovative approach to increase biofuel production from the saltwater crop Salicornia plants utilizing beneficial endophytic bacteria in the United Arab Emirates".



## STUDENT AWARDS SUPPORTED BY FACULTY MEMBERS

## 2ND PLACE IN THE "ENVIRONMENTAL AND MATERIALS SCIENCE SYMPOSIUM 2017 (EMSS'17)

Under the supervision of Prof. Thies Thiemann and Dr. Saber Elsuccary, Ms. Zeinab Mohammed Saeed, Ms. Salama Abubaker, Ms. Hiba Rahall (undergraduate students) and Ms. Rana Morsi (MSc student) participated with a research poster entitled "Novel bis-Schiff bases as potential ionophores for metal ionselective electrodes", which was ranked second in the best poster competition.

## **GOLD MEDAL IN PROGRAMMING**

Department of Mathematical Sciences student Mr Hussain Ali Alsmawi won the Gold Medal in Programming as part of the Emirates Skills National Competition 2018 held between 25-23 April 2018 at the Abu Dhabi National Exhibition Centre.

## **BEST POSTER PRIZE DURING INNOVATION WEEK 2018**

Department of Chemistry student Bashar Hiatham Al Zohily won the best poster prize during Innovation Week 2018 organized by the College of Engineering. He was awarded a UAEU shield and AED 1600.

## 2nd Place Poster Award at the Kuwait Conference of Chemistry (KCC 2018)

Ms. Nuha al Soom, an alumnus of the Department of Chemistry who received her MSc degree under the supervision of Prof. Thies Thiemann, was awarded the 2nd place poster award at the Kuwait Conference of Chemistry (KCC 2018) which took take place between 14-12 March 2018





#### SHEIKH MOHAMMED BIN ZAYED AND NYUAD SCHOLARS PROGRAM

Department of Chemistry student Mr Ibrahim Tahir was selected for a His Highness Sheikh Mohammed Bin Zayed and NYUAD Scholars Program. The aim of this program is to provide students opportunities to undertake courses in leadership, public speaking, critical thinking, persuasive writing, and US foreign policy delivered by world-renowned scholars. The duration of this program is one year. Upon successful completion of the program, scholars will be given a full graduate studies scholarship.

#### **BEST POSTER AWARD**

Department of Chemistry students Ms. Zeinab Saeed and Ms. Salama Abubaker won the best poster award in the Environmental and Material Science competition on 6 December 2017 at Khalifa University for Science and Technology, in Abu Dhabi.



## CONFERENCES

#### **Fourth International Conference on Engineering Geophysics**

9-12 October 2017

HH Sheikh Hazza Bin Tahnoun Al Nahyan opened the 4th International Conference on Engineering Geophysics and the associated exhibition. His Highness was briefed on the latest developments in geophysics and engineering companies working in this field. The conference was organized by the United Arab Emirates University and Al Ain Municipality from 9-12 October 2017 at UAEU. Over 200 researchers from several countries participated in the conference.



## Mars Symposium: "Probing the Environment of Planet Mars: Past, Present and Future of Our Next-door Neighbor in Space"

#### 9 November 2017

The Department of Physics, in collaboration with the National Space Science and Technology Centre (NSSTC) at United Arab Emirates University organized a very successful symposium on planet Mars titled: "Probing the Environment of Planet Mars: Past, Present and Future of Our Next-door Neighbor in Space" on 9 November 2017. The event was opened by the Dean of COS, Prof. Ahmed Murad. The event was graced by a number of very high profile international speakers such as the Principal In-



vestigators of NASA's MAVEN Mars Mission, NASA's Mars Aerosol Tracker (MAT) project, Former NASA Chief Scientist, Members of Applied Physics Lab Johns Hopkins University, as well as experts from UAE-based Universities. The high-point of the event was the participation of an astronaut from NASA's Apollo 15 mission who flew to the moon and back. The event also saw the participation of large number of students and faculty members from several institutions in the UAE. The Mars Symposium very successfully and effectively served the two-fold purpose of creating awareness of the significance of Mars science and giving an intense exposure of space sciences to the audience. The event highlighted the scope and importance of space science in the back drop of space-related activities at UAEU which are being carried forward in alignment with the national vision of world-class space research and exploration.

#### Groups, Group Rings, and Related Topics – 2017

#### 19-22 November 2017

Under the patronage of HE Professor Mohamed Albaili, Vice Chancellor, the Department of Mathematical Sciences organized the Second International Conference on "Groups, Group Rings, and Related Topics - 2017" (GGRRT 2017) which was held at the Oceanic Hotel in the city of Khorfakkan, Sharjah between 19-22 November 2017. The second edition of this international conference gathered 40 international experts in the field to give talks on the latest finding in Groups, Group Rings, and Related Topics.

The conference included keynote speakers, contributed talks and a poster session. The conference was an occasion to promote interaction and collaboration between experts in the field of groups, group rings, cryptography, coding theory and related topics.

#### Workshop on Operator Algebra, Quantum Probability & Innovative Applications

#### 7-8 February 2018

The Department of Mathematical Sciences organized a workshop on Operator Algebra, Quantum Probability & Innovative Applications between 7- 8 February 2018. Main topics included von Neumann algebras, C\*-algebras, quantum Markov processes and their application. Participants and speakers of this event were from well-established research groups in the USA and

Europe. The workshop was an occasion for faculty members in the Department of Mathematical Sciences to build collaborations with participants and to start research projects of common interest.

## ACS-UAEU Photochemistry Day

#### 24 April 2018

The Department of Chemistry organized a one-day symposium on 24 April 2018 entitled: "ACS-UAEU Photochemistry Day" hosting speakers from France and the American University of Sharjah with the support of the ACS UAE Chapter. The focus of the seminar was on frontier topics in photochemical sciences. Talks were also part of the College of Science's Distinguished Lecture Series.







## 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 in Fall 2016, successfully organized several dialogues in Fall 2017 as well.

Dialogue #	Date	Title	
1	04/10/2017	Importance of Interdisciplinary Researches in the Technology and Science Development	
2	26/11/2017	46 Years of Scientific Achievements in the United Arab Emirates	



## SWEET SCIENCE LECTURE SERIES

As part of the "Happy College" initiative, the COS launched the Sweet Science Lecture Series. The lecture series was initiated to make important developments in the field of science accessible to the lay audience. A highlight of this the series is the involvement of students in the presentation of the content along with his/her supervisor.

Lecture #	Date	Title	Faculty & Student
1	16/10/2017	The past, the present and the future	Prof Salman Ashraf (Chemistry) and Ms Aasiya Al Sayed
2	23/10/2017	Mathematics of diseases: From Black Death to MERS-CoV	Dr Abdessamad Tridane (Mathematical Sciences) and Mr Hussain Jaffar Alasmawi
3	30/10/2017	When cellular communication goes wrong	Dr Asma Al Menhali (Biology) and Ms Ifrah Ismail Zaid
4	06/11/2017	106 years of superconductivity	Dr Fathalla Hamed (Physics) and Mr Amro Imam
5	13/11/2017	Earth exploration, all sciences directed to one purpose	Dr Hakim Saibi (Geology) and Mr Falah Sheikh Mohamed



## WORKSHOPS & SEMINARS



Date	Series Name	Title
22/10/2017 - 26/10/2017	TPA Series Workshop	Drilling Activities and Techniques
24/10/2017		The Scientific Journalist
21/01/208 & 18/03/2018	TPA Series Workshop	World Energy Outlook to 2040
02/02/2018		Innovate with Robots Workshop
25/04/2018		Khalifa Empowerment Program for Students



## YEAR OF ZAYED INITIATIVES

The College of Science launched several initiatives to celebrate the Year of Zayed. This included the launch of a permanent exhibition, library and a regular dialogue series based on Sheikh Zayed's immense contributions.

#### THE YEAR OF ZAYED DIALOGUES

Date	Event	
28/01/2018	What does the Year of Zayed mean to us?	
20/02/2018	Zayed and Innovation	
11/03/2018	Zayed and Natural Resources Conservation	
16/04/2018	Zayed and Education	

## THE YEAR OF ZAYED PERMANENT EXHIBITION

The permanent exhibition, located in the ground floor of building F1, featured several historical photographs and narratives about the life and contributions of Sheikh Zayed. The exhibition was also visited by schools and other establishments.

A delegation from Marijab School, including staff and students, visited and viewed the permanent exhibition in honur of Sheikh Zayed.





#### THE YEAR OF ZAYED LIBRARY

The College of Science launched the library which now includes a rich collection of books and articles that features Sheikh Zayed.





## 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: Al Khair School and Al Madar International School.

#### CHEMISTRY

The Department of Chemistry received high school students from Al-Khair high school on Wednesday, October 18, 2017. The students had a tour of the Department followed by a visit to the educational innovation laboratory where they observed a visual presentation and conducted Chemistry experiments with the educational innovation laboratory staff.



Umm Kulthum Secondary School and Al Jahili School had attended the Launch of "Chemistry of the Future" and visited the Educational Chemistry Innovation Lab held on February 7, 2018.

Al Khair School and Saqer El Emarat School had attended the Opening of "CHEM Leap Innovation Hub" held on February 18, 2018 in conjunction with the Innovation Week.

Al Rofaa Primary school visited the Educational Chemistry Innovation Lab on February 2, 2018.

#### GEOLOGY

The Geology Museum and Laboratories were visited by 4 public and private high school totaling over 200 students. The purpose of the visit was 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., which has been sufficient to allow donations of minerals, rocks samples and fossils for teaching purposes.

#### MATHEMATICAL SCIENCES

Prof. M. Syam visited "Zaid Al-Awal High School", giving a talk about Flipping Classroom, November 8, 2017.



## SPACE CONNECT

The College of Science, the Department of Physics and the Student Engineering Club organized a one-day student event called "Space Connect" on 19 March 2018, with support from National Space Science and Technology Centre. The purpose of the event was to give students some knowledge and understanding of different aspects of Astronomy/Astrophysics, Space Science and Space Technology in an intuitive, interactive and fun-filled way. As part of the event, scaled-down models and displays of various objects, events and processes in the Universe such as life-cycle of stars, the solar system, cosmology and gravity were created for students to learn about them in an effective and enjoyable way. There were booths which had displays and demonstrations related to rocketry, satellites, spacecraft and other aspects of space technology. The event also featured a number of space-related activities, games and competitions. The event was visited by over 1000 students. The University Sharjah and Al Sadeem also participated in the event with their displays and education material and actively interacted with UAEU students.

## PHYSICS FUN LAB

The Department of Physics' Fun Lab is well equipped with many apparatuses and is operated by Eng. Ashraf Farooq. Throughout the academic year 2017-2018, the Fun Lab received many visitors, such as UAEU students of Conceptual Physics course, and students from schools in Al Ain city. The Fun Lab aims to introduce basic physics concepts in an entertaining and joyful manner. The Fun Lab updates its in an ongoing manner to provide the students an opportunity to view innovative exhibits and shows each time they visit.





## CHEMISTRY INNOVATION HUB (CHEM LEAP)

HE Prof. Mohamed Abdullah Albaili, Vice Chancellor of UAEU, inaugurated the Chemistry Innovation Hub (Chem Leap). Prof. Ahmed Murad, Dean of the College of Science, mentioned that the hub is the second phase of the Chemistry Innovation Education Lab.

The Innovation Hub includes several sections; one was designated as a scientific challenge area in Chemistry and recreational learning. Another area was devoted to virtual reality tools, which includes a three-dimensional view of scientific lessons and facts. In addition, a special area was designed as a library and a reading corner called "Zayed Planting" in commemoration of the country's founding father Sheikh Zayed. The hub also includes the "Chemistry Cafe" area, which was especially designed to attract students to utilize the facilities of the hub and towards making it a vibrant student activity center for Chemistry.

Dr. Mohammed Al-Azab, Chair of the Department of Chemistry, added that this hub is one of the distinguished activities carried out by the Department of Chemistry to celebrate the month of innovation in order to introduce Chemistry to students in an exciting and innovative way for all student age groups.

University students, as well as high school students, participated in the inauguration ceremony of the hub. They expressed their admiration of this creative idea and the way in which Chemistry was presented using innovative educational, technological and interactive tools which makes learning a real enjoyable and thrilling experience.



## CHEMISTRY INNOVATION CHALLENGE

As part of UAEU's Innovation Week, the Department of Chemistry organized a competition that aimed to increase awareness and knowledge of Chemistry among undergraduate Chemistry students. Teams, made of four students each, were challenged with General Chemistry questions. The winning team was awarded certificate and prizes.

## LAUNCH OF CHEMISTRY MUSEUM

A museum of the future of Chemistry-related innovations was launched on 7 February 2018. This included state-ofthe-art displays, videos, and interactive presentations on future applications of Chemistry in various areas of life.

Topics covered include Chemistry in health, Chemistry in food and water, Chemistry in manufacturing and Chemistry in the environment.



## MATH DAY 2018



#### 14/20 February 2018

Students and teachers from different Emirates participated in a series of lectures delivered by a number of faculty members from the Department of Mathematical Sciences as well as representatives from McGraw Hill Education, on smart learning, creativity and innovation in mathematics. Prof. Ahmed Murad, the Dean of the College of Science, stressed the importance of mathematics and science in the development of the UAE. Students in science, especially mathematics, will contribute to strengthening the initiatives of the UAE in the field of Mars exploration and artificial intelligence. Dr. Mohammed Salem Al Hammadi, Chairman of the Department of Mathematical Sciences, explained that the selection of the slogan of the 14th Math Day: "Mathematics, Creativity and Innovation" aims at shedding light on the important and effective role of mathematics in creativity and innovation. Dr. Mohammed explained that the purpose of holding such a day was to give students the opportunity to discover their ability in mathematics and to be scientists of the future.

## FOURTH ARAB GULF EDUCATION FORUM



A team led by Prof. Ahmed Murad, the Dean of the College of Science, consisting of members from various Departments of the College, participated and conducted training workshops during the Fourth Arab Gulf Education Forum. The Forum, organized by the Ministry of Education with the participation of 25 partner organizations and institutions including College of Science, provided an important training platform for teachers. The aim of the Forum was to achieve a pioneering educational experience in the UAE's STREAM education approach and to enhance the role of educational policies to support the STREAM approach to education. Members of the College delivered a series of lectures in mathematics, physics, biology and chemistry. In addition to this an exhibition of the Museum of Geology, a geological excursion to the mountains of Al Fayiah and an entertaining Physics Gallery were also organized for 3000 teachers and mentors who attended the Forum.

## WINTER OF APPLIED GEOSCIENCE EXPERIENCE



The faculty, staff and students of the Department of Geology organized a training course entitled the Winter of Applied Geoscience Experience (WAGE) camp between 15-21 February 2018 under the supervision of Dr. Khalid Al Bloushi, Chairman of the Department. This year the Department invited students from five universities

from Kuwait, Oman, Saudi Arabia, and the UAE. The main objective of this camp was to provide geoscience undergraduate students the chance to apply what they learn in the classrooms in the real field. It also aimed to enhance the research capability of the students.

## **GEOLOGY MOBILE INNOVATION LAB**

The Department of Geology launched the mobile innovation lab as part of the UAEU Innovation Week. It is a mobile vehicle with field tools such as geophysical surveys, water salinity measurement equipment, microscope, computer and LCD screens as well as lighting for nighttime field work and dynamo to supply power to the devices.



## INTERNATIONAL DAY OF THE OZONE LAYER

On the 30th anniversary of the International Ozone Day, Prof. Ahmad Murad, Dean of the College of Science organized an interactive panel discussion for the preservation of the ozone layer and to illustrate the importance of the ozone layer. The panel discussed ways to preserve the ozone layer and ways to avoid negative environmental impacts from a hole in the ozone layer. The discussion was moderated by Dr. Dalal Alshamsi (Geology) and the panel included Dr. Mona Bufaroshah (Chemistry) and Dr. Mahmoud Abu Saima (Geology).



# GOAL 5: HIGH QUALITY ADMINISTRATIVE SERVICES

ALEXAND

(B) Hilton

## MEETING OF THE COLLEGE ADVISORY BOARD



The College of Science Advisory Board held the second meeting for the academic year 2017-2018 on 6 May 2018. The meeting was hosted by the Central Testing Laboratories of the Abu Dhabi Quality and Conformity Council. The meeting discussed several matters related to the progress of the College. The Dean of the College, Prof. Ahmed Murad, presented the major achievements of the College. The Advisory Board recommended to have a career path for every student in the College.

## 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. This year as well, several events were organized under the umbrella of the Happy College initiative.

## Hour of Positivity and Happiness

28 September 2017, 14 December 2017, 25 January 2018, 15 February 2018, 8 March 2018

Organized at the Sports Complex, this activity provided members of the College an hour away from work to unwind and work out while engaging in sporting activities.

## Launch of the Academic Advising Majlis

1 November 2017

The Academic Advising Majlis was launched as a dedicated room to facilitate academic advising for male students in the College. The well appointed room includes a token number issuing system which streamlines the advising process.

## Second & Third Cultural Entertainment Days

14 November 2017 & 21 February 2018

For the second year running, the College organized Cultural Entertainment Days where faculty members and staff got together in an informal setting to participate in full filled activities including tug of war, football

and a best traditional dish cooking competition. As evident from the turnout, this event continued to be a big hit among the members of the College.

#### International Happiness Day 2018 Celebration 20 March 2018

The College led the University's celebration of the International Happiness Day with a large selection of activities in building F3. This included exhibits, food, cultural activities and the launch of the Happiness Report of the University.









# STUDENT ACTIVITIES

Chem

## BIOLOGY

Workshop on "Creative Ways of Choosing an Appropriate Major in the College"

27 November 2017

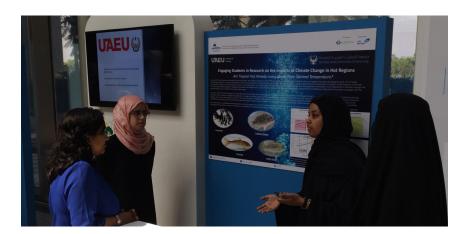


The Biology Club organized this workshop to provide students with some awareness and skills that could help them make a proper decision in selecting their specialization to avoid social, psychological and economic constraints.

#### **Biology Department's Ecological Modeling** Lab at Various Events

Students mentored by Dr David Thomson (Biology) presented their work related to the ecological impact of global warming at several fora.

#### **Scientific Challenges Forum** 15 October 2017



At this forum scientists and policymakers discussed nationally important issues such as food diversification and climate change. A group of postgraduate students led by Dr Thomson participated and presented posters related to the SURE Plus program.

#### **EAD-SCI** Exhibition

1 November 2017

The EAD-SCI Exhibition was organized under the patronage of Borouge Company and hosted in the Sheikh Khalifa Energy Complex in Abu Dhabi. Students mentored by Dr Thomson presented their study on the impact of the climate change on the region.

Ajman 5th International Environment Conference on Climate Change and Sustainability 6-7 March 2018



Dr David Thomson (Biology) and his students presented their work at the Ajman 5th International Environment Conference on Climate Change and Sustainability, hosted under the patronage of H. H. Sheikh Humaid Bin Rashid Al Nuaimi. As well as talks by academics and postgraduates, students from the UAEU SURE PLUS Program explained the findings of their summer undergraduate research experiences.

#### **Biology Coffee Hour Spring 2018**

8 March 2018

The Biology Club has initiated a regular facultystudent social gathering called "Biology Coffee Hour". This is a time for dialogue accompanied by coffee/tea and sweets to engage with students in an informal setting.

## Workshop on "How to read a scientific article?"

21 March 2018

The Biology Club organized a workshop by Dr Synan AbuQamar (Biology) aimed at providing tips that students could use to help them improve their skills in reading and understanding scientific articles.



**Bio Quiz Night** 24 April 2018

The Biology Club organized the annual Bio Quiz Night in Spring 2018. It is a "Biology" themed quiz involving several rounds of teams comprising of two students. Anyone who successfully completed Basic Biology or Introductory Biology, irrespective of their major, is eligible to participate in this contest. As usual, this year as well, the contest was very popular among students.

## CHEMISTRY

## Basic Emergency Response Course by SANID

22-26 January 2018



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

#### Visit to the Nobel Museum

11/14 February 2018

Undergraduate male and female students from the Department of Chemistry visited the Nobel Museum in Dubai.

## International Workshop on Advanced Materials

18-20 February 2018

Graduate and undergraduate students from the Chemistry Department participated in the 10th Annual International Workshop on Advanced Materials (IWAM) that was held Ras Al Khamiah Center for Advanced Materials (RAK CAM).

#### Visit to Dubai Police

 March 2017
 female senior students visited the forensic lab at Dubai Police.

## **Chemical Readings**

11 March 2018



This event was organized by the Department of Chemistry to introduce students to reading interactions and chemical equations in an entertaining way in the Educational Chemistry Innovation Lab. The event was coordinated by Dr. Ismail Elhaty, and Mr. Aymen Alsayed.

#### **Share Experiment Initiative**

#### 17 April 2018

Scientific experiments were conducted for the students in the Hearing Disability Unit in Al Ain Center for Care and Rehabilitation on Tuesday, the 17 April 2018. The College of Science organized this event with the participation of Dr. Ismail Elhaty, Mr. Aymen Elsayed and Dr. Abdelwahid Samadi from the Chemistry Department.

## MATHEMATICAL SCIENCES

## Annual Math Research Project Presentations

4 December 2017



The Department of Mathematical Sciences organized their annual students research project presentations on 4 December 2017. In this event, graduating students presented projects on Financial Mathematics, Number Theory and Abstract Algebra. In these presentations, the students discussed the findings of their project in front of juries of examiners composed of their mentors (Dr. Mohamed Salim Al Hammadi, Dr. Mohamed El Bachraoui and Dr. Youssef El Khatib) and two other faculties for each group. Following the presentation session, distinguished students were honored by the Chair of the Department, Dr. Mohamed Salim Al Hammadi.

## PHYSICS

**Student Trip to Itihad Museum, Dubai** 21 October 2017



The Department of Physics organized a Student Trip to the Itihad Museum in Dubai on 21 October 2017. This Museum was the venue for the 3rd Annual Science Workshop on "Emirates Mars Mission" (EMM). The workshop was opened by HH Shaikh Abdullah bin Zayed Al Nahyan and HH Shaikh Hamad bin Mohammed bin Rashed AlMaktoum. Many male and female Physics students attended the workshop and benefited from the lectures and workshops.

## International Workshop on Advanced Materials

18-20 February 2018

Students from the Department of Physics, especially those who benefited from SURE PLUS 2017 program, presented their posters at IWAM-3018. This year, IWAM was opened by H.H. Saud Bin-Saqr Al-Qasimi on 18 February 2018 in the presence of many leading materials scientists. IWAM is usually composed of oral presentations given by well-established scientists and poster presentations given by students during first and second days of the conference.

#### End of Year Pizza Party 26 April 2018

The Physics Club organized a Pizza party on 26 April 2018. The party was an opportunity to meet and socialize with the faculty members. It was also a farewell party to celebrate the graduation of two male students (Sultan Atatri and Ahmad Al-Haresheh). The students sought the advice of faculty on various aspects including building up self confidence and on developing skills to confront challenges faced in the world outside the University.

#### **Annual Report Committee**

Dr. Ranjit Vijayan (Biology) (Coordinator) Dr. Bayan Al-Dabbagh (Chemistry) Dr. Osman Abdelghany (Geology) Prof . Fathalla Rihan (Mathematical Sciences) Prof. Nacir Tit (Physics)



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