

ANNUAL REPORT

2018 - 2019

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THE COLLEGE

DEAN'S MESSAGE

The 2018-2019 academic year has been an exciting one for the College of Science (COS), providing a great foundation for several initiatives to be launched in the coming years. Firstly, let me thank our students, faculty and staff for their hard work, commitment and overall excellence. Special thanks to the Department of Biology for the accreditation of the BSc Biology Program by the Royal Society of Biology, UK.



The research in the College continues to be fast, with remarkable and sustained growth in funded research and faculty publications in top-ranked journals.

The COS is a pillar college of the University. Science subjects are required by different specializations of other colleges. Since establishment of the College in 1977, the COS 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 highlights the importance of research to the nation.

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.

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. During February 2019, the Vice Chancellor inaugurated the Laboratories for Materials Innovation in the presence of Prof. Omar Yaghi, James and Neeltje Tretter Chair and Professor of Chemistry at University of California, Berkeley. These laboratories will enhance research productivity of faculty members and will support the niche of the College.

Let me close by thanking 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



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Assistant Dean
for Student Affairs



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

HEADS OF DEPARTMENT



Dr. Khaled Amiri
BIOLOGY



Dr. Mohamed Alazab Alnaqbi
CHEMISTRY



Prof. Hassan Arman
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 2018-2019

Members of the College **published over 180 research articles in the academic year 2018-2019. 19 faculty members** received awards for publishing in **top 10% journals** or for being awarded a **patent** in 2017. 3 patents were awarded to faculty members this academic year. The Department of Mathematical Sciences was ranked #1 in terms of top publications at UAEU.

The **College of Science** organized **Science Week 2019** which was a huge success.

Department of Chemistry established a collaboration with **University of California, Berkeley** and the **Department of Geology** signed an agreement for academic cooperation with **Akita University, Japan**.

Students received several awards at local and regional conferences including Think Science Competition 2019.

The **Biology BSc program** was **accredited** by the Royal Society of Biology.

COS and its departments **organized leading conferences** including the **Annual Research and Innovation Conference** and **Gulf3: An International Conference**.



ABOUT THE DEPARTMENTS

BIOLOGY



The Department of Biology offers undergraduate programs in three tracks - Cellular and Molecular Biology (CMB), Ecological and Environmental Biology (EEB), and General Biology (GB). Graduates are adequately trained to carry out the innovations required for the vision of the University. The undergraduate program of the Department was accredited by the Royal Society of Biology this academic year. The Department also offers 4 graduate programs: MSc in Molecular Biology and Biotechnology, MSc in Environmental Science, PhD in Cellular and Molecular Biology and PhD in Ecological and Environmental Science. 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 Department of Chemistry 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. 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 is active in promoting science in the community. The Department also organizes workshops and training in the field of chemistry, lab management and safety.

GEOLOGY



The Department of Geology 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 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. The ultimate goal is to produce students that are fully prepared to be employed in the resources and geotechnical industries.

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 aspires to become an internationally recognized center of excellence in physics education and research. It is committed to providing the best quality of physics education by continuously improving its programs via benchmarking with international standards and seeking international accreditation (ABET-ANSAC). It aims at preparing its graduates with sound knowledge and proven skills in order to enable them to flourish in today's evolving interdisciplinary world. Indeed, in addition to its classic BSc Physics track, the department has started in Spring 2018 a new BSc track in Space Science. In support of this, it has recruited, this year only, three new faculty members. The department also promotes graduate education. It offers an MSc program in Physics and is in its way of granting an MSc in Space Science and Technology, an interdisciplinary graduate program in collaboration with other colleges. The Department also has an active PhD program. Furthermore, the Department supports sustained research activities in different fields of physics, maintaining quality output and fostering international collaborations.

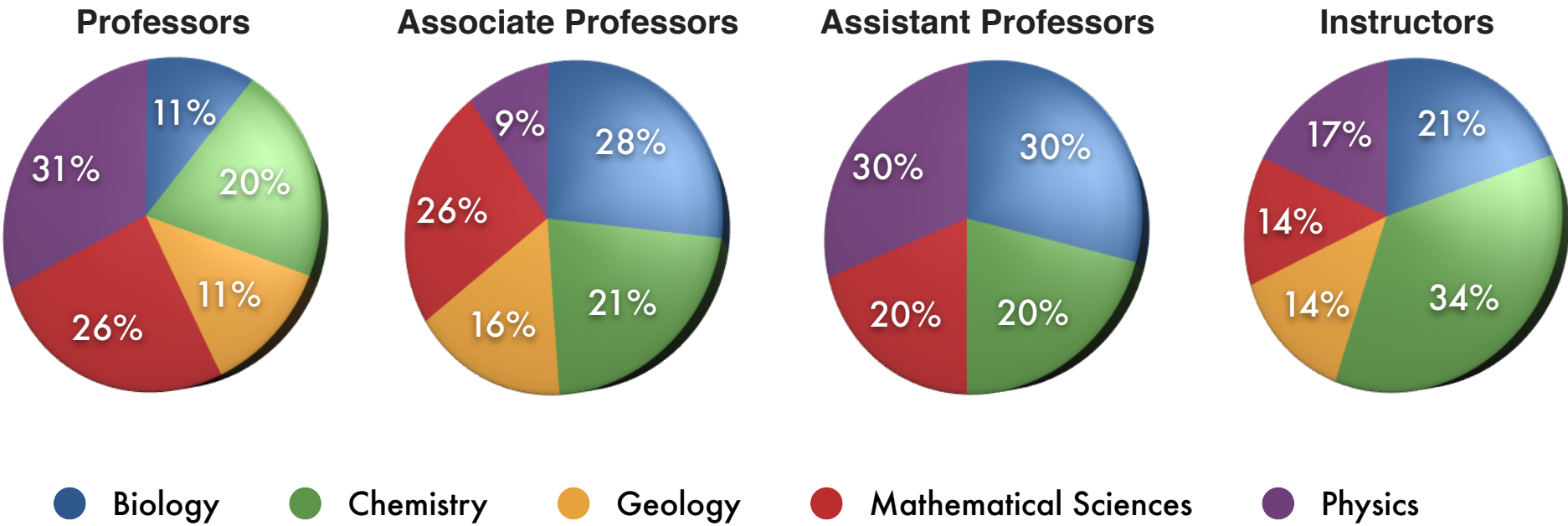


**GOAL 1: PREPARE
PIONEERING GRADUATES**



FACULTY NUMBERS

Department	Professors	Associate Professors	Assistant Professors	Visiting / Adjunct Faculty	Instructors	Total
Biology	4	12	6	0	6	28
Chemistry	7	9	4	1	10	31
Geology	4	7	0	0	4	15
Mathematical Sciences	9	11	4	0	4	28
Physics	11	4	6	0	5	26
Total	35	43	20	1	29	127

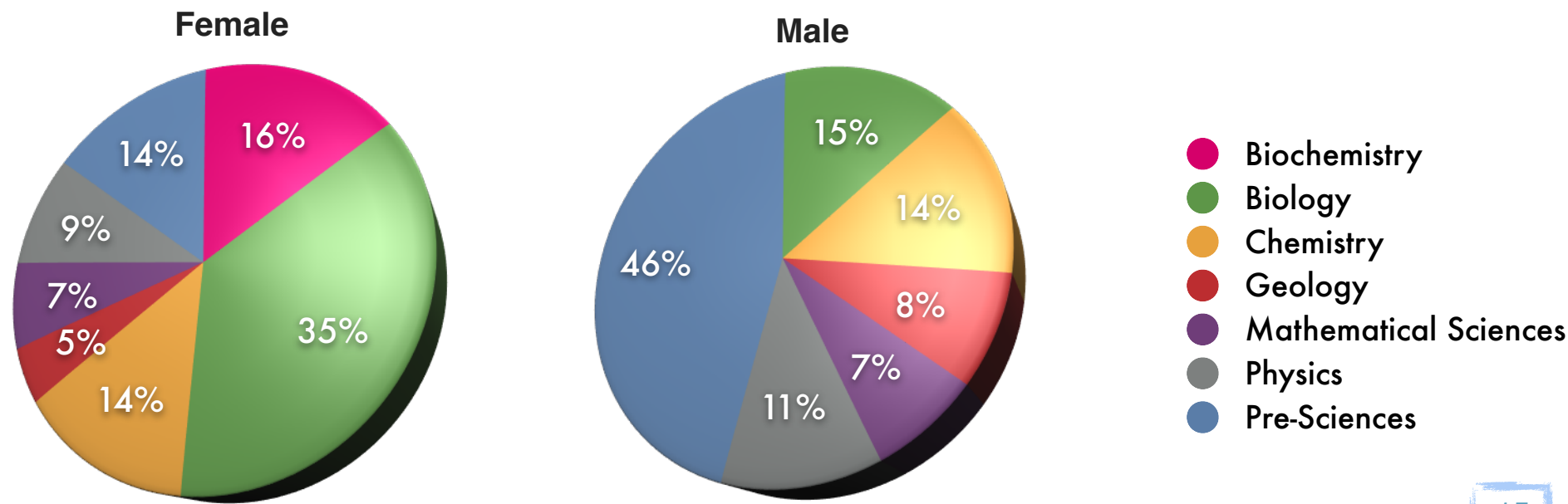


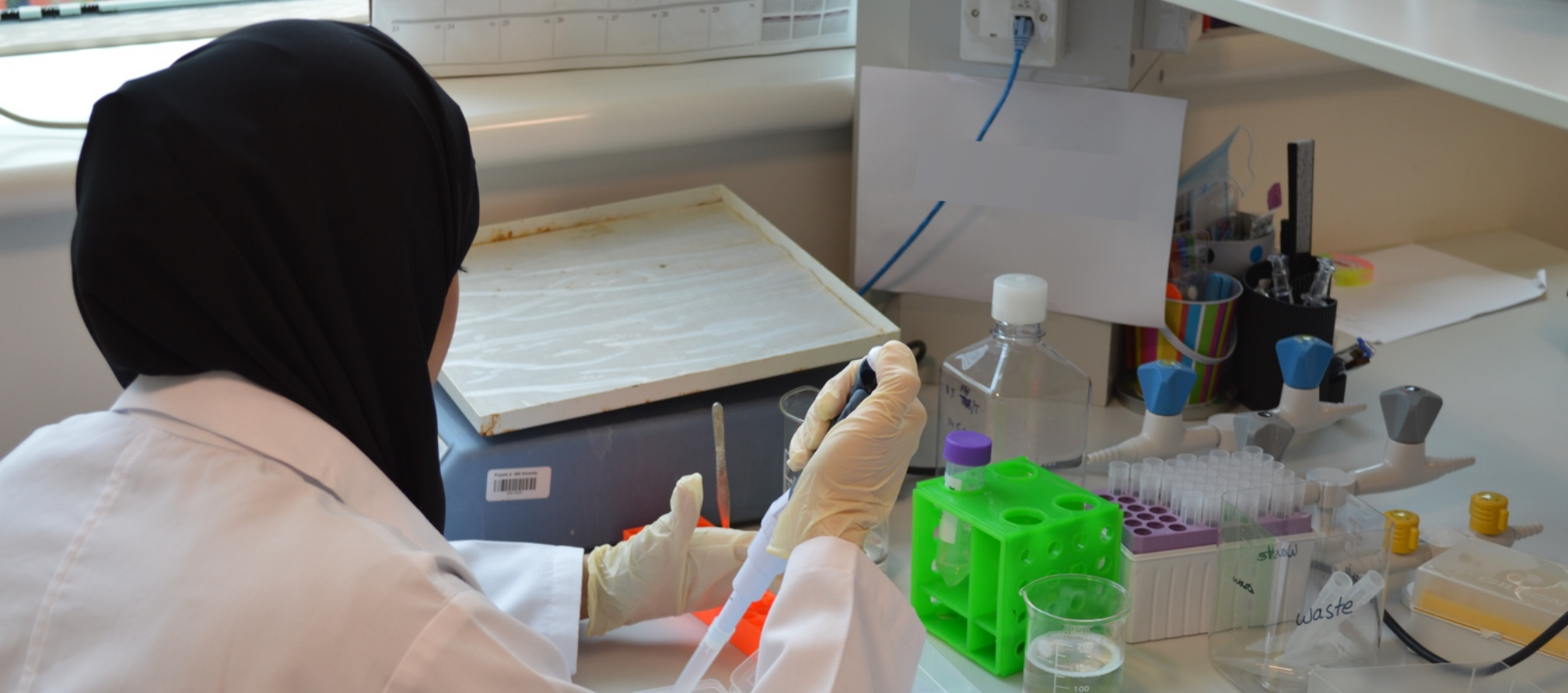


UNDERGRADUATE STUDENT NUMBERS

Major	2016-2017		2017-2018		2018-2019	
	Female	Male	Female	Male	Female	Male
Biochemistry	120	0	183	0	198	0
Biology	372	16	452	25	431	25
Chemistry	156	56	189	32	170	23
Geology	88	36	80	28	56	13
Mathematical Sciences	78	9	101	15	86	12
Physics	20	19	52	22	109	19
Pre-Sciences	36	39	53	21	170	77

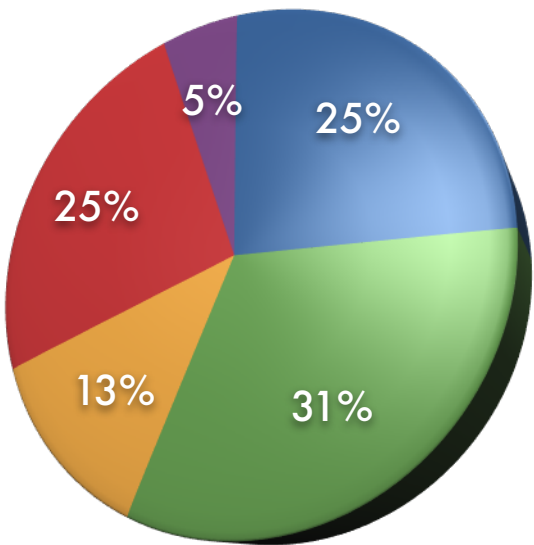
Undergraduate Students (2018-2019)





GRADUATE STUDENT NUMBERS

Program	Number of students
MSc (Chemistry)	31
PhD (Chemistry)	3
MSc (Environmental Science)	34
PhD (Ecology & Environmental Science)	8
MSc (Mathematical Science)	13
PhD (Mathematical Science)	4
MSc (Molecular Biology & Biotechnology)	25
PhD (Cellular & Molecular Biology)	9
MSc (Physics)	5
MSc (Physics)	2



- MSc (Chemistry) & PhD (Chemistry)
- MSc (Environmental Science) & PhD (Ecology & Environmental Science)
- MSc (Mathematical Science) & PhD (Mathematical Science)
- MSc (Molecular Biology & Biotechnology) & PhD (Cellular & Molecular Biology)
- MSc (Physics) & PhD (Physics)

SURE PLUS 2019

The College of Science received a total of 51 Summer Undergraduate Research Experiences (SURE) Plus 2019 initiative awards. Teams of 3-5 graduate and undergraduate students received an opportunity to work on extended projects with an experienced faculty member for 5 weeks in the summer break and during the academic year 2019-2020.

#	PI	Department
1	Amr Amin	Biology
2	Christos Georgiadis	Biology
3	Mayank Gururani	Biology
4	Mohamed Lotfy	Biology
5	Mohammad Fazale Haque	Biology
6	Oliver Manlik	Biology
7	Ranjit Vijayan	Biology
8	Ruwaya Al Kendi	Biology
9	Sofyan Alyan	Biology
10	Synan AbuQamar	Biology
11	Taoufik Ksiksi	Biology
12	Abbas Khalil	Chemistry
13	Abdelouahid Samadi	Chemistry
14	Ahmed Al Shamisi	Chemistry
15	Ahmed Alzamly	Chemistry
16	Alaa Eldin Salem	Chemistry
17	Haythem Saadeh	Chemistry
18	Iltaf Shah	Chemistry
19	Mohamad Toutounji	Chemistry
20	Mohammad Khasawneh	Chemistry
21	Mohammed Almeetani	Chemistry
22	Muna Bufaroosha Alfalasi	Chemistry
23	Na'il Ibrahim	Chemistry
24	Sayed Marzouk	Chemistry
25	Shaikha Alneyadi	Chemistry
26	Soleiman Hisaindee	Chemistry
27	Yaser Mohamed Greish	Chemistry

#	PI	Department
28	Amir Gabr	Geology
29	Bahaa Eldin Amin Mahmoud	Geology
30	Hakim Saibi	Geology
31	Hasan Arman	Geology
32	Salem Issa	Geology
33	Abdallah Rababah	Mathematical Sciences
34	Abdessamad Tridane	Mathematical Sciences
35	Ahmed Al Rawashdeh	Mathematical Sciences
36	Farrukh Mukhamedov	Mathematical Sciences
37	Ho Hon Leung	Mathematical Sciences
38	Mohamed El Bachraoui	Mathematical Sciences
39	Mohamed Hajji	Mathematical Sciences
40	Muhammad Imran	Mathematical Sciences
41	Nafaa Chbili	Mathematical Sciences
42	Qasem Al Mdallal	Mathematical Sciences
43	Salem Ben Said	Mathematical Sciences
44	Youssef El Khatib	Mathematical Sciences
45	El Hadi Sadki	Physics
46	Ihab Obaidat	Physics
47	Maamar Benkraouda	Physics
48	Nacir Tit	Physics
49	Naser Qamhieh	Physics
50	Nouredine Amrane	Physics
51	Usama Al Khawaja	Physics

BLENDED TEACHING & LEARNING

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

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 initiative on developing blended courses has started in the CoS. The following table shows a list of courses that have started the process and completion is anticipated before the start of Fall 2019.

Department	Course code	Course	Faculty involved
Biology	BIOE240	Principles of Environmental Science	Dr. David Thomson
Chemistry	CHEM112	General Chemistry II	Dr. Yaser Greish
Chemistry	CHEM181	Chemistry in the Modern World	Dr. Mohamed Khasawneh
Geology	GEOL110	Planet Earth	Dr. Dalal Alshamsi
Mathematical Sciences	MATH115	Calculus for Business and Economics	Dr. Zororo Makumbe
Physics	PHYS101	Conceptual Physics	Dr. Ehab Malkawi & Dr. Adel Hashish



UNDER THE PATRONAGE OF
H.E. SAEED AHMED GHOBASH
CHANCELLOR OF UNITED ARAB EMIRATES UNIVERSITY

تحت رعاية
معالي / سعيد أحمد غباش
الرئيس الأعلى لجامعة الإمارات العربية المتحدة

UAEU ANNUAL RESEARCH AND INNOVATION CONFERENCE

JANUARY 2019

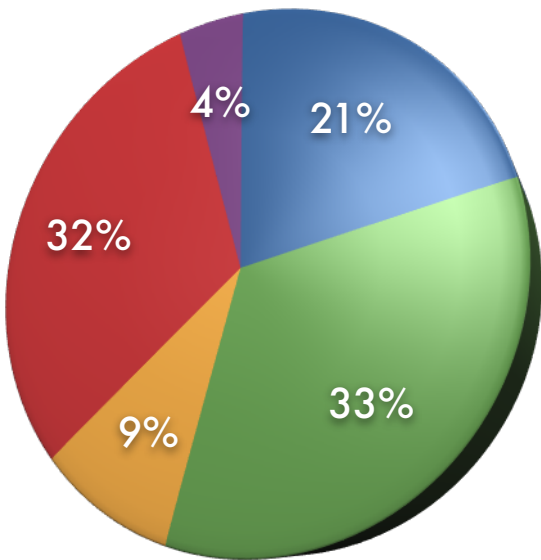
**GOAL 2: DEVELOP
SCIENTIFIC RESEARCH
CAPACITY & INNOVATION**

PUBLICATIONS AND CONFERENCE PARTICIPATION

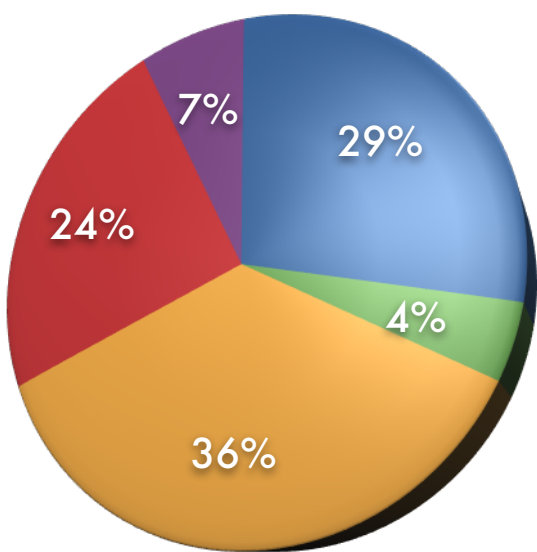
The college continues to undertake research of high caliber which are routinely published in leading international journals and presented at international conferences.

Department	Number of scientific research articles published in international journals	Number of scientific presentations at conferences
Biology	40	20
Chemistry	62	3
Geology	17	25
Mathematical Sciences	60	17
Physics	8	5
Total	187	70

Journal publications



Conference presentations



- Biology
- Chemistry
- Geology
- Mathematical Sciences
- Physics



RESEARCH GRANTS FROM UAEU

#	Project Title	PI	Department	Grant Type
1	Mechanisms of Sperm Storage in Female Elasmobranchs	Aaron Henderson	Biology	Start-up
2	Population genetics/genomics to guide conservation of wildlife populations in the UAE and beyond	Oliver Manlik	Biology	Start-up
3	Integral analysis of palaeokarst & continental carbonates in desert mountain ranges of the UAE. Unravelling the palaeoclimate & palaeohydrology of complex geofluids-host rocks interactions	Juan Pedro Rodriguez Lopez	Geology	Start-up
4	Numerical Solution of Ordinary Differential Equations and Burger-Huxley Second Order Partial Differential Equations using Splines	Abdallah Rababah	Mathematical Sciences	Start-up
5	Nonstandard Bergman type spaces	Humberto Gil Silva Rafeiro	Mathematical Sciences	Start-up
6	Properties of distance Laplacian and distance signless Laplacian spectra of graphs	Mustapha Aouchiche	Mathematical Sciences	Start-up
7	Harmonic analysis associated with Dunkl differential-difference operators	Salem Ben Said	Mathematical Sciences	Start-up
8	Involutions in group algebras	Zsolt Balogh	Mathematical Sciences	Start-up
9	Formation of supermassive black holes in the Universe	Muhammad Abdul Latif	Physics	Start-up
10	Multi-wavelength observations and modeling of dust properties in massive star forming regions of the Large Magellanic Cloud	Naslim Neelamkoda n	Physics	Start-up
11	Metabolomics-based analyses of a novel potential Bcl-2 inhibitor, safranal, on follicular lymphoma	Amr Amin	Biology	Center-Based
12	Pollutant cycling in marine food webs in the eastern Arabian Gulf	Sabir Muzaffar	Biology	Center-Based
13	Modified nanostructured Ni-based catalysts for partial oxidation of methane: Suppressing carbon deposition and catalyst sintering using multi-metal catalysts and modified reducible oxide supports	Abbas Khalil	Chemistry	Center-Based
14	Analyses of pharmaceutical residues as potential hazardous emergent contaminants in wastewater of Al Ain. Phase II: Antibiotics, non-steroidal anti-inflammatory, lipid regulating and psychiatric drugs	Alaa Eldin Salem	Chemistry	Center-Based

#	Project Title	PI	Department	Grant Type
15	Unravelling groundwater isotopic signature and impact on sustainability and recharge recognition	Dalal Saif Sulaiman Alshamsi	Geology	Center-Based
16	Evaluating Geoengineering Properties of Evaporites from Abu Dhabi, UAE	Hasan Arman	Geology	Center-Based
17	Design and fabrication of lithium-ion batteries with high performance	Fathalla Hamed	Physics	Center-Based
18	Designing Graphene for Next Generation Water Filtration and Desalination Applications	El Hadi Sadki	Physics	AUA
19	Navigation Mechanisms of Camels, Camelus Dromedarius, in the Empty Quarter Desert	Sofyan Alyan	Biology	UPAR
20	Development of Novel Systems for Analytical and Applied Applications	Sayed Marzouk	Chemistry	UPAR
21	Investigating the role of magnetic field, size and synthesis conditions of hematite nanoparticles on the exchange bias and coercivity around the Morin transition	Sulaiman Al Kaabi	Geology	UPAR
22	Significant functions in coding theory and cryptography	Kanat Abdukhalikov	Mathematical Sciences	UPAR
23	Numerical Study of heat transfer characteristics of fluid flow over an oscillating infinite long elliptical cylinder	Qasem Al Mdallal	Mathematical Sciences	UPAR
24	A revised volatility model and application to option valuation	Youssef El Khatib	Mathematical Sciences	UPAR
25	Slow-Moving Gluons in a Quark-Gluon Plasma	Abdessamad Abada	Physics	UPAR
26	Doping of Germanium Telluride Nanowires for Memory Applications	Haila Aldosari	Physics	UPAR
27	Equation-of-State, Transport Coefficients, Thermodynamic Properties, and Shock Hugoniot of Materials at High Energy Density	Mefreh Abdel Gawad Zaghloul	Physics	UPAR
28	Molecular design and preparation of Sr ₃ SnO-based topological insulators with enhanced spintronic, electronic and magnetic properties	Nouredine Amrane	Physics	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 2017 and for receiving a patent.



Publication(s) in top ranked journals in 2017

Prof. Amr Amin (Biology)
Dr. Khaled El-Tarabily (Biology)
Dr. Mohammed Ayoub (Biology)
Prof. Rabah Iratni (Biology)
Dr. Sabir Bin Muzaffar (Biology)
Dr. Synan AbuQamar (Biology)
Dr. Abdelouahid Samadi (Chemistry)
Prof. Ala Aldahan (Geology)
Dr. Hakim Saibi (Geology)
Dr. Mohamed El-Bahraoui (Mathematical Sciences)
Prof. Muhammed Syam (Mathematical Sciences)
Prof. Qasem Mdallal (Mathematical Sciences)

Prof. Maamar Benkrauda (Physics)
Prof. Mofreh Zaghloul (Physics)
Prof. Nacir Tit (Physics)
Prof. Salah Nasri (Physics)
Prof. Saleh Thaker (Physics)
Prof. Usama Al-Khawaja (Physics)

Patent

Dr. Adel Najjar (Physics)

PATENTS

Prof. Taoufik Ksiksi (Biology) was awarded a US patent

Prof. Taoufik Ksiksi (Biology) was awarded a patent by the US Patent and Trademark Office for his invention “EnvironPipes: Irrigation Pipes Delivering CO₂ and Water” (Docket 32715.30. Issued 9 April 2019). This is the first patent where a Department of Biology faculty member is the principal inventor. The patent is about an irrigation system which combines CO₂ with the water delivery system.



EnvironPipe is an innovative irrigation pipe system modeled to deliver irrigation water and CO₂ efficiently to improve plant growth and conserve water. The idea centers around the concept that water stress is one of the most common environmental stress factors limiting plant productivity. The type of water stress may vary from small fluctuations in atmospheric humidity to extreme soil water deficits and low humidity. It can hamper proper functioning of plants by reducing mineral uptake and as a result, photosynthesis and overall plant growth decreases and plant manifest these changes in its growth.

Dr. Mohamed Alazab Alnaqbi, Dr. Yaser E. Greish, Ms. Afra Alblooshi (Chemistry) were awarded a US patent

The patent was awarded for the invention “Methods for Treating Oil” which describes a more efficient sorbent system for the fast removal and ultimate retrieval of oil spills from aqueous media using nanofibrous sorbents that were fabricated from recycled plastic waste. The invention provides exceptionally high sorption capacities of oil spills and a complete retrieval of the adsorbed oil to be recycled in the oil refinery.

Dr. Khaled El-Tarabily (Biology) was awarded a US patent

Dr. Khaled El-Tarabily was awarded a patent entitled “Date pit composition for the treatment of animals” for the invention of a new machine used in poultry nutrition. The application have been accepted by the United States Patent and Trademark Office. Patent Application Number: US 10,265,368 B2 on 23 April 2019. This invention relates to compositions for treating and preventing bacterial infections in an animal. In particular the invention relates to compositions comprising degraded date pits.



An objective of the invention is to provide methods and compositions to treat and prevent bacterial infections in domestic animals. A further objective of the invention was to provide an alternative to conventional antibiotics to treat and prevent bacterial infections in domestic animals. In one aspect, the invention comprises a method of treating and preventing bacterial infection in animals comprising: administering an effective amount of a degraded date pit composition to the animal. The methods allow a reduction in the amount of conventional antibiotics that will need to be administered to maintain animal health.

COLLABORATION WITH UC BERKELEY

University of California Berkeley (UCB) entered into a collaboration agreement with UAEU effective 5 October 2018, to promote cooperative international research efforts and training of scientific investigators in the area of nanoscience, nanoarchitectures, chemistry, material sciences, and applied sciences. The collaboration will be led by Professor Omar M. Yaghi (Co-Director, Berkeley Global Science Institute) in the College of Chemistry and Berkeley Global Science Institute at the University of California, Berkeley and by the Associate Professor Dr. Mohamed Alazab Al Naqbi (Co-Director, UAEU) in the College of Science at UAEU.

As part of this, a multi-million, multi-center proposal titled “UAEU Materials Science Alliance on Water” has been submitted which includes several investigators including Dr. Mohamed Alazab Alnaqbi (Chemistry; PI), Dr. Yaser E. Greish (Chemistry, Co-PI), Dr Mohamed Hamouda (College of Engineering, UAEU), Dr. Eyas Mahmoud (College of Engineering, UAEU) and Dr. Mohsen Sherif (National Water Center) along with University of California, Berkeley represented by Prof. Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California) and Mr. Kyle Cordova (Associate Director of the UC Berkeley Global Science Institute in Berkeley, California).

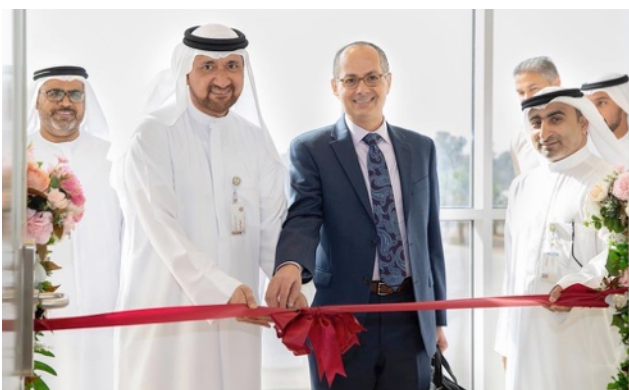


The College of Science hosted Professor Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California) between 25-26 February 2019.

On 26 February 2019, Prof. Omar Yaghi also gave a scientific lecture titled on “How to Harvest Drinking Water from Desert Air”



Laboratories of Materials Innovation



As part of the collaboration, the Laboratories for Materials Innovation was established and opened by Prof. Mohammed Abdullah Albaili (VC, UAEU) and Prof. Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California) on 25 February 2019.

Reticular Materials Bootcamp

This workshop series on Metal-Organic Frameworks and Related Materials) held between 28 January 2019 and 14 March 2019. A total of 8 scientific lectures were held by Professor Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California), Professor Michael O'Keeffe (the Regents' Professor of Chemistry at Arizona State University in Tempe, Arizona, USA), and Kyle E. Cor-dova (Associate Director of the UC Berkeley Global Science Institute in Berkeley, California, USA).

Global Science Summit

Global Science Summit is a planned summit to be held between 16-18 March 2020 as a partnership between UAEU and UC Berkeley Global Science Institute. This summit will host the most prominent speakers, university chancellors and Nobel laureates.





**GOAL 3: ACHIEVE
ACADEMIC EXCELLENCE**

HIGHLIGHTS OF THE DEPARTMENTS

BIOLOGY

- ★ The undergraduate program of the Department was accredited by the Royal Society of 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.
- ★ Undergraduate students won the first, second and third prizes at the Think Science Competition 2019 under the supervision of Dr. Khaled El-Tarabily.
- ★ Dr Khaled El-Tarabily & Dr. Synan AbuQamar won prestigious Rashid bin Humaid Awards.
- ★ The Department successfully co-organized the Gulf3 international conference titled “Managing the Gulf Ecosystem: Dealing with Climate Change; Invasive Species and Coastal Alterations”.
- ★ Prof. Taoufik Ksiksi was awarded a US patent for “EnvironPipes: Irrigation Pipes Delivering CO₂ and Water” and Dr. Khaled El-Tarabily was awarded a US patent for “Date pit composition for the treatment of animals”.

CHEMISTRY

- ★ The Department of Chemistry has established a collaboration with University of California, Berkeley (UCB) effective from 5 October 2018.
- ★ The Department established the Laboratories for Materials Innovation which was opened by Prof. Mohammed Abdullah Albaili (VC of the UAEU) and Professor Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California) on 25 February 2019. The Department of Chemistry hosted Professor Omar Yaghi (Co-Director, Berkeley Global Science Institute, University of California) on 25-26 February 2019.
- ★ The Department launched the Chemistry Virtual Lab on 6 February 2019, which was visited by H.E. Hussein Ibrahim Al Hammadi (Minister of Education) and H.E. Saeed Ahmed Ghobash (Chancellor of UAEU) on 26 March 2019 and students from the Al Ain Centre for Care and Rehabilitation on 5 March 2019.
- ★ Dr. Mohamed Alazab Alnaqbi, Dr. Yaser E. Greish and Ms. Afra Alblooshi were awarded a US patent entitled: “Methods for Treating Oil”.
- ★ The Department hosted a visit from the students of Al Ain Centre for Care and Rehabilitation (Zayed Higher Institute) on 05-03-2019. The guests visited our Virtual Lab as well as our Innovation Academic Lab in E4.

GEOLOGY

- ★ UAEU and the Department of Geology signed an agreement on academic cooperation with Akita University, Japan. Dr. Hakim Saibi supervised students during their training in the Geology laboratories and field trips during October 2018.
- ★ The Department has agreed to adopt a new one track geology program to meet the requirements of the students and the industry and meets the requirements of international geosciences programs.
- ★ The Department acquired a new instrument named (Geodrone) for surface and subsurface exploration. Five Binocular Microscopes (Model Optika, Olympus and SCT) and a Rock Cutting Machine (MK101) were added to the Paleontology laboratory and the Department workshop.

MATHEMATICAL SCIENCES

- ★ The Department of Mathematical Sciences was ranked #1 in terms of top publications at UAEU.
- ★ The Department was recognized as the most productive research department of UAEU and in the top 5 in terms of number of publications per faculty.
- ★ Around 15 distinguished professors from different countries presented talks in the Department and opened channels of research with faculty members.
- ★ The Department organized a Workshop on Stochastic and Computational Finance (SCF19), in co-operation with the Department of Economics & Finance between 20-21 February 2019.

PHYSICS

- ★ The Department of Physics recruited three new faculty members in support of the new BSc track in space science launched in Spring 2018.
- ★ The department is in active preparation of application files in view of ABET-ANSAC accreditation with preliminary visit.
- ★ Members of the Department were awarded nine research grants (UPAR, startup, center based, and AUA) and won five awards for publishing in top journals.

REVIEW OF CURRICULUM

BIOLOGY

The Department of Biology is working on updating the curricula to match international programs. The Department is in the process of submitting a proposal on newly proposed curricula that will be more engaging and promote our students' opportunities in future job markets. The proposed changes include the merging of two current tracks - general biology, and ecology and environmental biology - into a single track named ecology and organismal biology which includes several new courses. Smart learning and current pedagogical approaches will also be incorporated into these tracks. The requirement for a minor has been removed and the credit hours have been distributed in the other clusters.

CHEMISTRY

Two proposals submitted by the Department of Chemistry to modify the Chemistry and Biochemistry curricula have been approved by the University Program and Curriculum Committee (UPCC). The modifications are based on removing the compulsory minor components in both curricula and redistributing their 18 CH among the other programs' components. In Chemistry, the compulsory specialization requirements have been increased from 45 CH to 54 CH, the elective specialization requirements have been increased from 3 CH to 6 CH and the supporting requirements have been increased from 15 CH to 21 CH. Other curriculum components (i.e., College Requirements, General Education Requirements and Internship) remained unchanged. The changes also did not impact the program name, objectives or admission requirements. For the Bio-

chemistry program, The released 18 CH was redistributed as follows: Increasing the major specialization requirements from 45 CH to 54 CH, increasing the free electives to 6 CH (from 3 CH) and to increase the Supporting requirements from 15 CH to 21 CH.

These changes have also been approved by CAA, RCS and CSC accrediting bodies for the Chemistry Department. They have also been bench marked and approved at the Department and College levels. It is expected that the new Chemistry and Biochemistry curricula will remedy the current programs' deficiencies in fundamental concepts, enhance the depth of the higher level courses, improve the employability chances of our graduates, fulfill the program's learning outcomes and prepare students for postgraduate programs. The new curricula are going to be implemented as soon as they get approved by the University Academic Council, hopefully by Fall 2019.

GEOLOGY

The Department of Geology approved to merge the presently offered two programs tracks into a single program track with a BSc in Geosciences. The main reason for this step is to offer the students both specialty subject coverage and depth that was not possible with the program structure as two tracks. 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. Several recommendations were made regarding the BSc and MSc in Mathematical Sciences including establishment of tracks to attract students that are of interest to the job market, to simplify the assessment of learning outcomes and to revise the program to include more credit hours for mathematics courses. The modified MSc program was also approved by the University's Curriculum Committee.

PHYSICS

The Department of Physics has proposed a new MSc in Physics that allows for a non-thesis option. The proposal has been accepted by the University Curriculum Committee. The next step is the University Academic Council, and then the CAA.

The Department has also proposed an MSc program in Space Science and Technology. All the university steps have been completed. The proposal is now awaiting CAA approval.

ACCREDITATION

CAA accreditation

The College of Science actively supported the University's efforts in seeking CAA accreditation. Departments and its program committees were actively involved in preparing the self study report and the site visit of the CAA panel. All the programs of the College have now been accredited by the CAA.

BIOLOGY

The Department of Biology's undergraduate program was accredited by the Royal Society of Biology in Spring 2019. Furthermore, the Department is also considering the accreditation of the MSc (Environmental Sciences) program.

CHEMISTRY

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

GEOLOGY

The Department of Geology is looking into seeking accreditation for its programs and facilities from ANSAC, an accreditation commission under ABET (Accreditation Board for Engineering and Technology) that deals with accreditation for the purpose of assuring confidence in university pro-

grams in STEM disciplines (including Science). The accreditation process begins with a Readiness Report that will be completed by the Department by October 2019. After ANSAC approval, a full Self Study Report will be submitted in April 2020, followed a site visit of a ANSAC delegation in 2021.

The restructured Geology programs will also seek CAA accreditation. This will strengthen the position of the Department in present and future ANSAC accreditation applications.

MATHEMATICAL SCIENCES

The Department of Mathematical Sciences has made significant progress in the process to get international academic accreditation from ABET. The Department's Accreditation Committee representative Prof. Fathalla Rihan participated in the 2019 ABET Symposium, Dallas, Texas (USA) between 10-13 April 2019.

PHYSICS

The Department of Physics is seeking accreditation from ABET-ANSAC. It submitted its readiness report on 1 October 2018 and, after review, received approval to move to the next step. The Department submitted the Request for Evaluation form signed by CAA and the University's Chancellor in February 2019. This request has been approved and the department was invited to submit its self-study report by 1 July 2019. ABET-ANSAC evaluators will visit the department on 11 November 2019. A final decision is expected in early 2020.

UNIVERSITY EXCELLENCE ALLOWANCE

The following faculty members were awarded the University Excellence Allowance for 2018. The College congratulated the faculty members for the hard work and dedication.

Prof. Amr Amin (Biology)

Dr. Khaled El-Tarabily (Biology)

Prof. Rabah Iratni (Biology)

Dr. Synan AbuQamar (Biology)

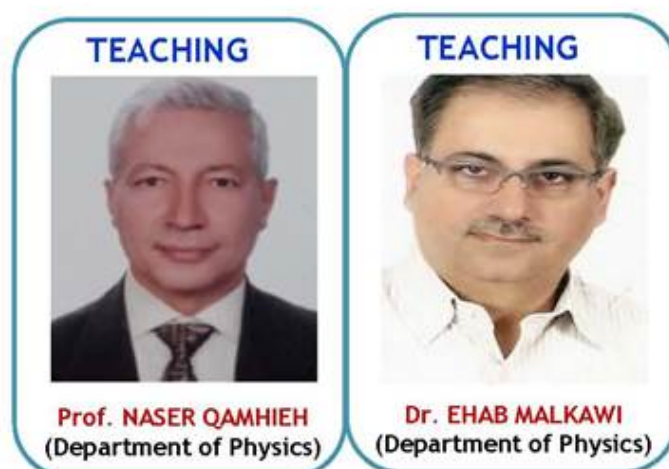
Prof. Salah Nasri (Physics)

Prof. Usama Al-Khawaja (Physics)

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



SCHOLARSHIP



SERVICE



ACADEMIC PROMOTION

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

Dr Khaled El-Tarabily (Biology)

Dr Mohammed Salim Al-Hammadi (Mathematical Sciences)

Dr Sabir Bin Muzaffar (Biology)

Dr. Synan AbuQamar (Biology)

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

Dr Adel Najar (Physics)

Dr Dalal Alshamsi (Geology)

Dr Iltaf Shah (Chemistry)

Dr Khalid Al Bloushi (Geology)

Dr Sehjeong Kim (Mathematical Sciences)

AWARDS RECEIVED BY FACULTY MEMBERS

RASHID BIN HUMAID CULTURAL & SCIENCES AWARD

Dr Synan AbuQamar (Biology) won the first place in the “Environmental Sciences” category for the topic “Increasing the ability of Rhodes grass to tolerate salinity of irrigation water using beneficial actinobacteria in the United Arab Emirates.”



Dr. Khaled El-Tarabily (Biology) won the first place in the “Nutrition” category for the topic “Bacteriophage cocktail as a new control application for the improvement of food safety in the United Arab Emirates.”



YOUNG SCIENTIST AWARD

Dr. Mohammad Yusuf (Biology) was awarded the “Young Scientist Award”, for his scientific contribution in the field of Plant Physiology, by the Government of the State of Uttar Pradesh, India.



MUNICIPALITY AWARDS 2018

Dr. Abdelouahid Samadi (Chemistry) received an award during the Meeting to support excellence organized by the Municipality of Beni Makada, Tangier, Morocco on 10 July 2018.



FESTIVAL AWARD 2019

Dr. Abdelouahid Samadi (Chemistry) received an award during the National Festival of Culture and Creativity organized between 5-7 April in Tangier, Morocco.

ELSEVIER CERTIFICATE OF OUTSTANDING CONTRIBUTION IN REVIEWING

Dr. Soleiman Hisaindee (Chemistry) was awarded the Elsevier Certificate of Outstanding Contribution in Reviewing for year 2017. This recognition was awarded as he was within the top 10 percentile of reviewers for the Chemical Engineering Journal, a Scopus top 5% journal with impact factor 6.73.

DSC DEGREE IN MATHEMATICS

Prof. Fathalla Rihan (Mathematical Sciences) received a Doctor of Science (DSc) degree from the Academy of Science of Uzbekistan in Mathematics on 25 April 2019. The title of the dissertation was “Qualitative and Quantitative Features of Differential Equations with Memory with Their Applications”. He studied a wide range of delay differential equations with integer and fractional-order derivatives and showed that they have a richer mathematical framework (compared to differential equations without memory) for the analysis of dynamical systems.



STUDENT AWARDS

THINK SCIENCE 2019

Department of Biology students Ms. Maryam Al Darraji, Ms. Naama Al-kaabi, Ms. Fatmah Aldhaheri, and Ms. Marwa Alblooshi, supervised by Dr. Khaled El-Tarabily, won the first place in Think Science Competition 2019 at the University level for The Emirate of Abu Dhabi in the field of Energy, Environment, and Applied Sciences. The title of their project was “The use of bacteriophages to control *Legionella* spp. in air conditions cooling towers”.



Department of Biology students Ms. Shamsa Alfalasi, Ms. Mai Moustafa, Ms. Maitha Aljneibi, and Ms. Maitha Alkhaja under the supervision of Dr. Khaled El-Tarabily also won the second place in “Think Science competition 2019” at the university level for The Emirate of Abu Dhabi in the field of Food Security and Water Sustainability. The title of their project was “Application of plant growth-promoting bacteria to increase plant tolerance to drought stress in the UAE”.

Department of Biology students Ms. Shayma Alzarooni, Ms. Sara Mekky, Ms. Areej Ali, and Ms. Khulood Alblooshi under the supervision of Dr. Khaled El-Tarabily further won the third place in “Think Science competition 2019” at the university level for The Emirate of Abu Dhabi in the field of Food Security and Water Sustainability for their project titled “Application of Beneficial Bacteria to Control Mango Dieback Disease”.

YOUNG FUTURE ENERGY LEADERS PROGRAM

Mr. Amro Imam (Physics) was selected for the Young Future Energy Leaders Program at Masdar Institute of Science & Technology. During the World Future Energy Summit in Abu Dhabi on 14 January 2019, Dr Imam and his team emerged as the debate champion by winning a debate against banning plastic bottles.



WINNER OF YOUTH LEADERSHIP AWARD

Ms. Baraa Ahmed Hasan (Physics) was the winner of the Youth Leadership Award at the Stars of Business SME Awards held on 6 March 2019.



12TH DUBAI INTERNATIONAL FOOD SAFETY CONFERENCE 2018

Undergraduate student Ms Marwa Abdulrahman Alblooshi (Biology) won the First Place in the Student Presentation Competition at the 12th Dubai International Food Safety Conference 2018, which was held in Dubai. She was supervised by Dr. Khaled El-Tarabily.



5TH UAE GRADUATE STUDENTS RESEARCH CONFERENCE

Graduate student Ms. Khawla J. AlWahshi (Biology), won the Second Place in the field of Clinical, Preclinical, Health and Life Sciences track during the Student Presentation Competition at 5th UAE Graduate Students Research Conference, Zayed University, Abu Dhabi. She was supervised by Dr. Khaled El-Tarabily and Dr. Synan Abu-Qamar.



BEST POSTER PRIZE DURING UAEU ANNUAL RESEARCH AND INNOVATION CONFERENCE

Department of Chemistry students Ms Reem Alzard, Hamda Alblooshi, Khawla Alhosani, and Shaqra AlMadhoob won the best poster award for securing the first place in the undergraduate student category competition during the UAEU Annual Research and Innovation Conference on 5-6 February 2019. Ms. Shaima Raji (Chemistry) also won the best poster award at the UAEU Annual Research and Innovation Conference 2019.

SHEIKH MOHAMMED BIN ZAYED AND NYUAD SCHOLARS PROGRAM

Ms. Baraa Ahmed Hasan (Physics) was selected to participate in the prestigious Sheikh Mohammed Bin Zayed Scholarship Program (SMSP) held at NYUAD (starting in August 2018).





GOAL 4: SERVE THE SOCIETY

CONFERENCES & WORKSHOPS

Gulf3: An International Conference

Managing the Gulf Ecosystem: Dealing with Climate Change; Invasive Species and Coastal Alterations

5-7 November 2018

Under the patronage of H. E. Saeed Ahmed Ghobash, Chancellor of United Arab Emirates University, the Biology Department, and the College of Science, UAEU in collaboration with the Canadian Society of Aquatic Ecosystem Health and Management (AEHMS, Canada), organized an international conference on "Managing the Gulf Ecosystem: Dealing with Climate Change; Invasive Species and Coastal Alterations" during the period 5-7 November 2018 (IT Building, UAEU). The conference was attended by 183 scientists and students from 15 countries with a total of 65 presentations and posters.

The conference was opened by H. E. Saeed Ahmed Ghobash, Chancellor of United Arab Emirates University, and Dr. Mohiuddin Munawar, President of AEHMS, Canada. The opening speech was given by H.E. Dr. Thani Al Zeyoudi, Minister of Climate Change and Environment of UAE, on 5 November 2018.



The conference co-chairs were Prof. Waleed Hamza (Professor of Aquatic Ecology, Department of Biology, UAEU) and Dr. Mohiuddin Munawar (President of AEHMS, Canada).

Research papers presented during three days conference discussed issues in aquatic ecosystem health and management, climate change, invasive species, coastal alteration, pollution and other hazards that affect the Gulf ecosystems. Topics such as biodiversity and exotic species were

also discussed. Additionally, two workshops took place in the first two days of the conference: Renewable Resources Management and Regional Cooperation and Water Quality agreement between Gulf countries.

International workshop on the Delay Differential Equations: Theory, Applications and New Trends (DDE-TANTs 2018)

2-4 October 2018

Under the Patronage of Professor Ahmed Murad, the Dean of College of Science, the Department of Mathematical Sciences organized an international workshop on “Delay Differential Equations: Theory, Application, and New Trends (DDEs-TANTs 18)”. Around 50 participants from the region and different countries participated in this workshop. The main objective of this well-focused workshop was to provide an opportunity to study



the new trends and analytical insights of the delay differential equations, existence and uniqueness of the solutions, boundedness and persistence, oscillatory behavior of the solutions, stability and bifurcation analysis, parameter estimations and sensitivity analysis, and numerical investigations of solutions.

Symposium on Genomic and Synthetic Biology

4 November 2018

The symposium included lectures on evolution of sensory perception by Prof Claude Desplan and improvement of algal productivity by Prof Kourosh Salehi Ashtiani.

Workshop on Stochastic and Computational Finance (SCF19)

20-21 February 2019

The Department of Mathematical Sciences organized a workshop on Stochastic and Computational Finance (SCF19) at UAEU. SCF19 was organized in collaboration with the Department of Economics and Finance. The workshop focused on mathematical problems related to financial issues. It also dealt with actual applications to finance and economics. Scholars from academic and industry



sectors, as well as graduate students from mathematics, economics or finance, participated in this event. Participants came from several countries including Canada, Spain, Singapore, UK, Pakistan, Morocco, Kuwait, Saudi Arabia, Nigeria, Sweden, and the UAE. They presented their research findings and discussed recent developments in this area of study.

INSPIRATION 101

The College launched a new series of sessions title “Inspiration 101” on ideas that have recognized world wide, patented and commercialized.

Session #	Date	Title	Faculty & Student
1	04/02/2019	A catalyst for air purification	Prof. Abbas Khalil (Chemistry)
2	19/02/2019	A nano-bio device for DNA sequencing	Dr El Hadi Sadki (Physics)
3	05/03/2019	Fungal degraded data pits to replace antibiotics in chicken feed	Dr. Khaled El-Tarabily (Biology)



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 and to engage students with prominent topics in science.



THE YEAR OF ZAYED DIALOGUES

The College continued the dialogue series titled “The Year of Zayed Dialogues” with 4 sessions in Fall 2018. These dialogues were organized at the Multaqa.

THE YEAR OF ZAYED DIALOGUES

Date	Title of Dialogue
25/09/2018	Zayed and Sport
24/10/2018	Zayed and Environment
25/11/2018	Zayed and Agriculture
04/12/2018	Zayed and the Union

SCIENCE WEEK 2019



Science Week 2019 was organized by the College of Science from 22 to 24 April 2019. The main objective of this event was to make it possible for the community institutions, high school and university students to learn about strategic science major disciplines, which is a major pillar of the STEM strategy, and their areas of innovation and work. The exhibition and accompanying activities provided an opportunity for participants to bring forth their thoughts and share their experiences with visitors, as well as to discover and attract outstanding students or specializations that are required in different fields. Also, it was a platform for interaction between experts and students for intellectual discussion and to transfer experience and advice related to scientific disciplines.

It was a hugely successful event with comprehensive participation from the five departments of the College. The event included a variety of programs and activities, including scientific experiments, interactive exhibits and hands-on workshops. Two types of programs and activities were in place: the first type was constant during the three days and the second type was formed and oriented to support the objective of the day. The first day focussed on the bachelor level while the second day was focussed on training and employability.

The COS Science Week committee was headed by Dr. Sulaiman Al Kaabi, Assistant Dean for Student Affairs at the College of Science and included a number of faculty members and staff under the patronage of Prof. Ahmed Murad, the Dean of the COS.

Several science-related companies and schools participated in the event. The event was sponsored by Dubai Electricity and Water Authority as a platinum sponsor, Ministry of Energy and Industry as a golden sponsor, and Schlumberger, Wiley Ltd., Al Nawras Medical and Laboratory Supplies and National Company for Feed Production and Marketing as silver sponsors.





SCHOOL VISITS

SCIENCE WEEK 2019

Science Week 2019 attracted students from several schools in the area. See Science Week 2019 for more details.

Apart from this several departments also hosted visits from schools.

BIOLOGY

The Department of Biology provided demonstrations and lectures several schools during this academic year. Faculty members gave lectures to students of Um Al Arab School Cycle 2 and 3, Abu Dhabi, and demonstration of rabbit dissection to students of Al Zaidia Secondary School, Al Ain.

CHEMISTRY

The Department of Chemistry hosted a visit from the students of Al Ain Centre for Care and Rehabilitation (Zayed Higher Institute) on 5 March 2019 with the coordination of Ms. Ruwaya Al Nuaimi. The guests visited the Chemistry Virtual Lab as well as Innovation Academic Lab in E4.



Several school students also participated during the Merck Discovery Day organized by the Department on 1 October 2018.

As part of Al Ain Book Fair 2018 activities, held between 23 September to 2 October, Dr. Mona Boufarousha (Chemistry) participated in the discussion of the book “The Elements” by Theodore Gray, which was produced by the Kalima Project for Translation and organized by Kalima Club.



GEOLOGY

Emirates Falcon International School the Department of Geology labs and museum supervised by Dr. Amir on 11 March 2019, as part of the “Reading Month”.

The Geology Museum and Laboratories hosted 3 public and private high school visitations that included over 120 students. These were conducted this year for informing students and teachers of the scope and importance of the geosciences. The visitors were very impressed by the scope of the Geology Museum collection and the Geology Labs.

PHYSICS

Naama School visited the Physics Fun Lab on 19 March 2019



CHEMISTRY VIRTUAL INNOVATION LAB

The Department of Chemistry launched the Chemistry Virtual Lab on 6 February 2019. Prof. Ahmed Murad, the Dean of the College of Science, and Dr. Mohamed Alazab, the Head of the Department of Chemistry, as well as other faculty and staff members of the Department were present.

H. E. Hussein Ibrahim Al Hammadi, Minister of Education and H. E. Saeed Ahmed Ghobash, the Chancellor of UAEU visited the Chemistry Virtual Innovation labs in E4 on 26 March 2019 where they admired the way the lab was set up and the services that it can provide for our students and high school students as well. Prof. Ahmed Murad, the Dean of the College of Science, and Dr. Mohamed Alazab, the Head of the Department of Chemistry, as well as other members of the Department hosted the visitors.



INNOVATION LAB OF MINERAL RESOURCES AND GEOLOGY

Ministry of Energy and Industry in cooperation with the Department of Geology, College of Science, launched "The Innovation Lab of Mineral Resource and Geology" in the UAEU Innovation Park on 14 February 2019.



COLLEGE EVENTS

WORLD DIABETES DAY

As part of the World Diabetes Day, on 14 November 2018 the College of Science organized a seminar with talks by Dr Mo- hammad Akli Ayoub (Biology) and Prof Juma Alkaabi (College of Medicine and Health Sciences).



GEOLOGY LIBRARY

Prof. Ahmed Murad, the Dean of the College of Science, and Prof. Hasan Arman, the Head of the Department of Geology, opened the Geology Library in building E4 on 22 November 2018. The library includes more than 700 books and 12 scientific journals that covers all fields of geology.



WORLD WATER DAY

On the occasion of the World Water Day, celebrated on 20 March 2019, the Department of Geology organized a hands-on activity themed “Water Pumping Techniques”



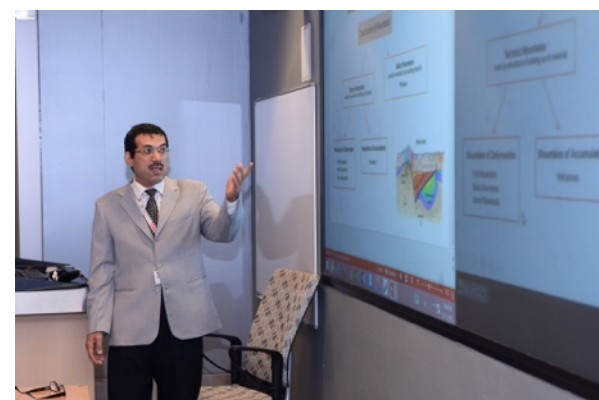
UAE CODER PROGRAM

In collaboration with Sandoog Al-Watan, and College of Science organized an IT training session for school students. 160 students from different schools attended the session of the program organized on 1 April 2019.



INTERNATIONAL MOUNTAINS DAY

On the International Mountains Day, the College of Science organized a seminar about mountains of the UAE. Dr. Osman Abdelghany talked about the different types of mountains, how they are formed and their usefulness.





**GOAL 5: HIGH QUALITY
ADMINISTRATIVE SERVICES**

MEETING OF THE COLLEGE ADVISORY BOARD



The COS advisory board met in December 2018. The board discussed items related to the COS strategic plan, enrollment rate, job market opportunities, new academic programs, and program accreditations.

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.

Fourth Cultural Entertainment Days

14 November 2018

For the third 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.

Honoring of faculty members who published in top journals

13 February 2019

The College recognized the contributions of faculty members who published in top journals.



Honoring students and faculty members

20 March 2019

The College honored students who excelled in academic and non-academic activities.



Gathering of the chairs and co-chairs of the Annual Research & Innovation Conference 2019

3 April 2019

The College expressed its gratitude to the members of the College who acted as chairs and co-chairs of the Annual Research and Innovation Conference 2019 which was organized by the College of Science.



STUDENT ACTIVITIES



STUDENT ACTIVITIES

Students from the college actively participated in several events including the UAEU Colleges Exhibition (19 November 2018), UAEU Open Week (24-28 February 2019), Think Science (21-23 March 2019), and COS Science Week 2019 (22-24 April 2019).

Departments and student clubs also organized several events during this academic year.

BIOLOGY

Meet & Greet

September 19, 2018

This gathering was organized by the Biology Club for all Department of Biology members and students. During this gathering, the Department Chair, all biology track coordinators, biology graduate programs coordinators and other faculty members were invited to meet with students and answer their questions. At the end of the meeting Biology Club officers were acknowledged and honored for their contributions.

Lecture at Mohamed bin Zayed Majlis

27 May 2019



A delegation from UAEU including students from the College of Medicine and the Department of Biology, attended a lecture at the Mohamed bin Zayed Majlis in Abu Dhabi entitled “Cellular Ateliers: Regenerative Medicine and the Body Shop of the Future”.

CHEMISTRY

Merck Discovery Day

25 September 2019



The Department of Chemistry, and the College of Science, in collaboration with Merck company hosted the “Merck Discovery Day”. During this activity day Merck introduces Master and PhD students from various fields of studies to new technologies in life science.

MATHEMATICAL SCIENCES

How to make a good presentation

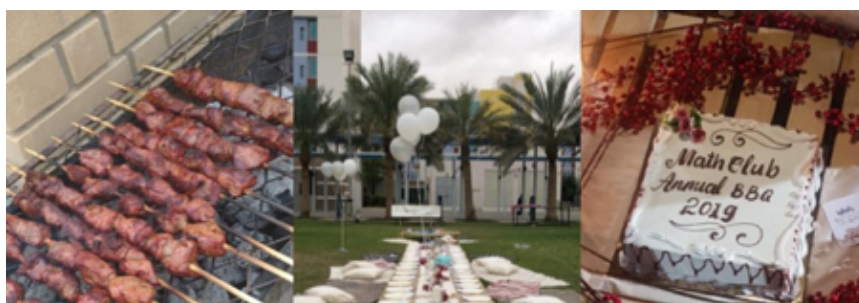
5 November 2018



Dr. Abdessamad Tridane gave a two hour workshop to graduate students on “How to make the best out of conference a participation”. This workshop aimed to training graduate students and undergraduate students, involved in research, how to make a conference participation/attendance fruitful.

Annual BBQ party

19 February 2019



The Math Club organized a barbecue party which was hosted in the Female Students Housing. Mathematical Sciences major female students had the chance to spend time with each other in a social sitting to create a Math student community. Female staff of the Department as well as the female graduate students were also invited.

Trip to Institute of Artificial Intelligence

27 February 2019

The Math Club organized a scientific trip to the Institute of Artificial Intelligence in Abu Dhabi for Female Math students. Students were able to discover how mathematics can be used in the Artificial Intelligence and decision making.

Pi Day

26 March 2019



The Math Club organized the Pi Day where faculty member of the Department and students gathered to bake pies and solve math puzzles. This event was attended by Math major students, faculty mem-

bers, the Chair of the Department Dr. Mohamed Salim AlHammadi and the Dean of the College of Science Prof. Ahmed Murad.

PHYSICS

Wave-Particle Duality Lecture

20 February 2019



The wave-particle duality lecture was organized and presented by the members of the The Physics Club.

Annual Report Committee

Dr. Ranjit Vijayan (Biology) (Coordinator)

Dr. Bayan Al-Dabbagh (Chemistry)

Dr. Osman Abdelghany (Geology)

Prof . Abdalla Rababah (Mathematical Sciences)

Dr. Abdessamad Abada (Physics)

Produced by Dr. Ranjit Vijayan



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United Arab Emirates University

