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## Dean's Message



Welcome to **scilights** Spring 2022, the College of Science Newsletter!

Another academic year full of opportunities and challenges has come to an end, where the College of Science has lived some remarkable success stories and learnt how to turn some challenges into opportunities. And although our academic life has become less restrictive under COVID19- pandemic, our routine daily life is still impacted by the constant possibility of the rise of the virus that could significantly disrupt our academic life.

Perhaps the most remarkable achievement of the College of Science is its scientific research outcomes. The College has topped all other colleges in terms of research productivity. In 2021, our faculty members and students were able to publish a total of 498 publications in Scopus-indexed journals, which is an increase of over %20 when compared to 2020. Furthermore, more than %55 of these publications are in Q1 journals. A number of papers were published in prestigious journals such as Nature Microbiology, Science Advances, Journal of the American Chemical Society, Coordination Chemistry Reviews, Nature Communications, Astrophysical Journal Letters, and Scientific Reports.

The College was also able to consolidate its collaboration with the European Center for Nuclear Research (CERN). A UAEU post-doctoral researcher was placed to work at ATLAS/CERN and a senior undergraduate student, competitively selected by CERN, was sponsored to participate in the summer training in Geneva, Switzerland.

The College of Science worked hard to attract and retain both undergraduate and graduate students. The student strength now stands at 1610 undergraduate and 202 graduate students. The College also graduated 266 undergraduate and 40 graduate students this academic year.

Remarkably, five of our faculty were promoted to the rank of Full Professor while four were promoted to the rank of Associate Professor.

As for upgrading the College research infrastructure, we were able to set up our own greenhouse for the Department of Biology through a generous donation from the National Center of Meteorology. Our collaboration with the College of Medicine and Health Sciences on the mice-facility has led to the preparation and approval of the accreditation proposal of the facility by the American Association for Accreditation of Laboratory Animal Care (AAALAC).

**Prof. Maamar Benkraouda**  
Dean, College of Science

## COS Advisory Board

The College Advisory Board, composed of eminent individuals with governmental and non-governmental background, guides the College in attaining its mission and assists the College with its role in serving the nation. The Advisory Board meets at least once a semester and reviews College plans and achievements.

The members of the Advisory Board are:

**Mr. Sultan Al Hajji** (Vice President for Public Affairs and Alumni Relations, Mohamed bin Zayed University of Artificial Intelligence; Chairman, Advisory Board of COS)

**Eng. Suhail Thani Al Muhairi** (Infrastructure & Services Coordination Division Manager, Al Ain Municipality)

**Dr. Mohamed Murad Abdulla** (Director, Decision Support Center, Dubai Police)

**Mr. Saeed Mohammed Al Muhairi** (Executive Director, Emirates Metrology Institute, Abu Dhabi Quality Conformity Council)

**Ms. Sheikha Al Maskari** (Communications Advisor, Chief Innovation Officer & Founding member, UAE Space Agency)

**Mr. Salem Rashed Almatrooshi** (Retired from ADNOC)

**Ms. Aayda Al Shehhi** (Director, Radiation Safety, Federal Authority for Nuclear Regulation)

**Dr. Abdulla Ahmed Al Mandous** (Executive Director, National Center of Meteorology)

## Editors

Dr. Asma Al-Menhali (Vice Dean, COS)

Dr. Ranjit Vijayan (Biology)

Dr. Soleiman Hisaindee (Chemistry)

Dr. Kamal Ali (Geosciences)

Prof. Mohamed Ibrahim Syam (Mathematical Sciences)

Prof. Mofreh Ramadan Zaghoul (Physics)

Mr. Mohamed Shahid (Dean's Office)

## Design

Dr. Ranjit Vijayan (Biology)

✉ [cos.office@uaeu.ac.ae](mailto:cos.office@uaeu.ac.ae)

🌐 <https://cos.uaeu.ac.ae>

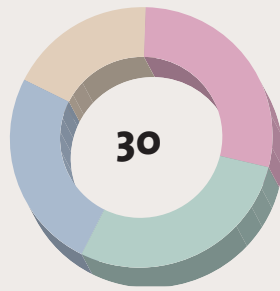
# The College

## DEPARTMENT

## FACULTY

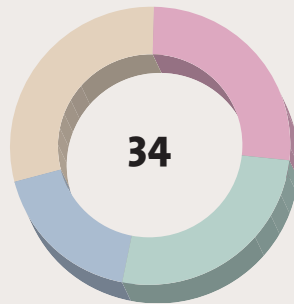
## PROGRAMS

**Biology**



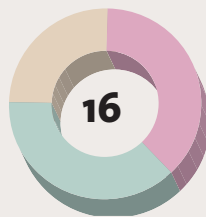
**BSc** (Biology)  
 Cellular & Molecular Biology Track  
 Ecology & Organismal Biology Track  
**MSc** (Environmental Sciences & Sustainability)  
**MSc** (Molecular Biology & Biotechnology)  
**PhD** (Ecology & Environmental Sciences)  
**PhD** (Cellular & Molecular Biology)

**Chemistry**



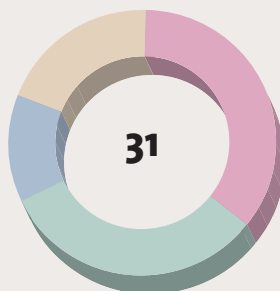
**BSc** (Chemistry)  
**BSc** (Biochemistry)  
**MSc** (Chemistry)  
**PhD** (Chemistry)

**Geosciences**



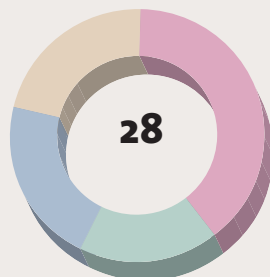
**BSc** (Geosciences)  
**MSc** (Geosciences)  
**PhD** (Geosciences)

**Mathematical Sciences**

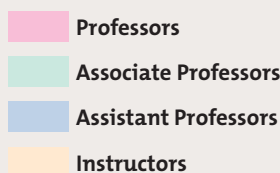


**BSc** (Mathematics)  
**BS-MS** (Mathematics)  
**MSc** (Mathematics)  
**PhD** (Mathematics)

**Physics**



**BSc** (Physics)  
**BS-MS** (Physics)  
**MSc** (Physics)  
**MSc** (Space Science)  
**PhD** (Physics)

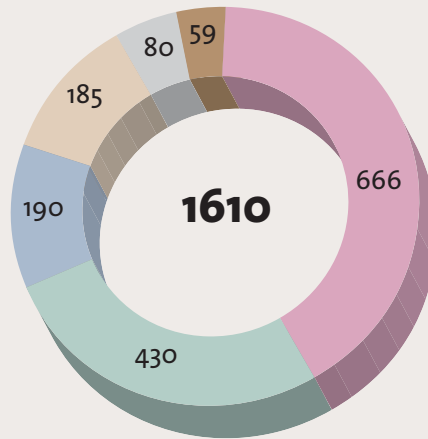


### Programs Under Process

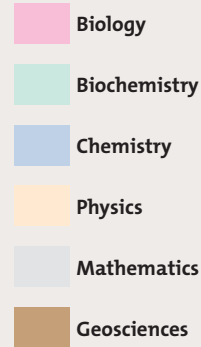
- BSc in Data Science
- BSc Minor in Material Science
- MSc in Advanced Materials
- MSc Track in Quantum Computing
- MSc in Forensic Science
- MSc in Bioinformatics

# Student Enrollment

## Undergraduate Programs

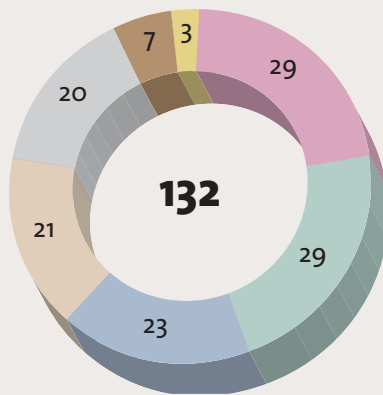


### Bachelor of Science

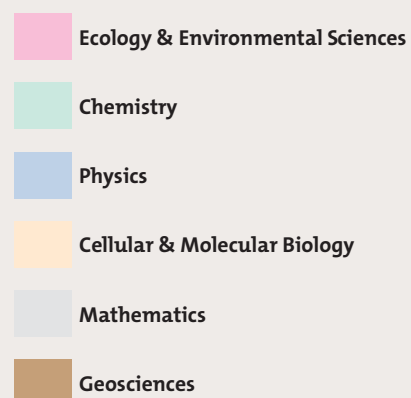
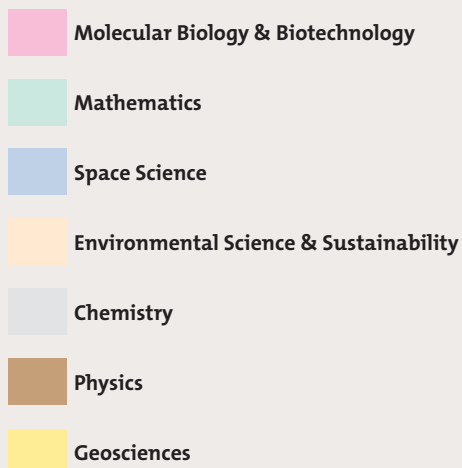
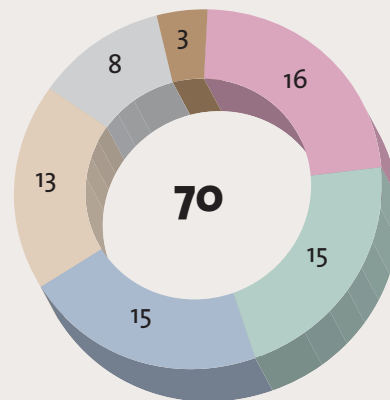


## Graduate Programs

### Master of Science



### Doctor of Philosophy



# Events & Activities

## Innovation Week Activities

31 January – 4 February 2022



As part of the Innovation week the COS and its constituent departments organized several activities and events to engage the members of the UAEU. This included Innovation 101, which was a series of interviews of senior members of the College regarding their innovations, talks about recent innovations and graduate research competitions.

Activities conducted:

### Innovation 101 interviews

- Prof. Haydar Baker (Geosciences)
- Prof. Amr Amin (Biology)
- Prof. Abbas Khaleel (Chemistry)
- Prof. Fathalla Ali Rihan (Mathematical Sciences)
- Prof. Farrukh Mukhamedov (Mathematical Sciences)
- Prof. Adel Najjar (Physics)

### Talks

- "Vehicles detection based on their seismic surface waves using artificial intelligence" by Prof. Hakim Saibi (Geosciences)
- "Innovative technology for reconstruction of past climatic events" by Prof. Ala Aldahan (Geosciences)
- "Camel Milk and Diabetes - Recent Advances", by Dr. Mohammad Ayoub (Biology)
- "Use of microorganisms to promote salicornium growth for biofuel production", by Prof. Khaled Al-Tarabily (Biology)
- "SAMSE, a new conservation tool to determine sustainable limits to human-caused mortality of wildlife in a stochastic world" by Dr. Oliver Mallik (Biology)
- "Frontiers in Photochemistry" by Dr. Ahmed Alzamy (Chemistry)
- "Innovative approaches in Mathematical Modelling" • Series of student presentation in different mathematical subjects

### Competitions for Graduate Students

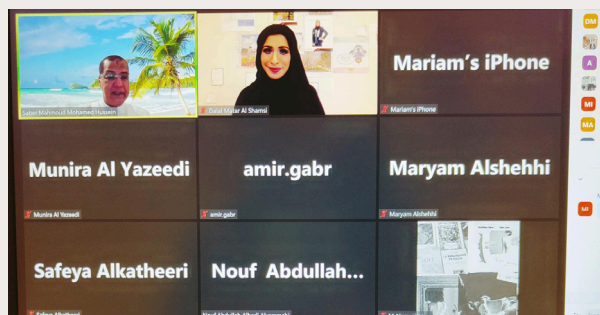
- Earth Science Innovation Competition
- Biology Innovation Competition
- Chemistry Innovation Competition
- Mathematics Innovation Competition
- Physics Innovation Competition

### Workshops

- Workshop tutorial on ChemDraw Software
- A workshop about innovation in Physics -1
- "Biofuel production" – A laboratory demonstration by Prof. Khalid El-Tarabily (Biology).

## Month of Reading Activities

March 2022



In line with the national celebrations, March was marked with reading activities, including reading from an Arabic book and poetry reading, to celebrate the month of reading.

## Factors in Innovative Research

21 April 2022



An online discussion was organized by the COS and the Berkeley Global Science Institute where several renowned scholars from around the world talked about factors affecting creative research.

## Visit of Malaysian Delegation

19 May 2022



A delegation from the University Teknologi MARA Malaysia (UiTM), composed by Prof. Haryani, Dean of Faculty of Computer and Mathematical Sciences, Dr. Amirul Afif Muhamt, and Dr. Hayati Abdul Rahman visited the Department of Mathematical Sciences of the COS on 19 May 2022. They met with the Dean, Prof. Maamar Benkraouda, the Chair of the Department of Mathematical Sciences, Dr. Adama Diene, and a few other faculty members from the College. The two delegations discussed the possibility of collaboration between UAEU and UiTM. They agreed to sign an MoU between the two universities, including the establishment of joint collaborations on research, supervision of graduate students, organization of staff mobility, and exchange of external examiners.

# Faculty Achievements

## Prime Minister's Medal



Prof. Khaled Amiri (Biology) received the Prime Minister's Medal (Mohammed Bin Rashid Government Excellence Award) in the Future Career Category.

## Chancellor's Innovation Award



Prof. Amr Amin (Biology) received the innovation award in the Technology competition area.



Prof. Hakim Saibi (Geosciences) received the innovation award in the Water competition area.



Dr. Abdullah Mahboob received the award in the Health competition area.

## University Excellence Awards

The College is proud to recognize the following faculty members for their contributions to the institution.

- **University Excellence Award for Excellence in Scholarship:** Prof. Synan AbuQamar (Biology)
- **Merit Allowance:** Prof. Amr Amin (Biology) and Prof. Farrukh Mukhamedov (Mathematical Sciences)

## Khalifa Award for Education



Prof. Khaled El-Tarabily (Biology) won the Khalifa Award for Education in the field of Higher Education (Distinguished University Professor category).

## Faculty Promotions

### Full Professors

The following five faculty members were promoted to the rank of Full Professor.

1. Dr. Mohamed Al Deeb (Biology)
2. Dr. Ranjit Vijayan (Biology)
3. Dr. Thomas James Fowler (Geosciences)
4. Dr. Nafaa Chbili (Mathematical Sciences)
5. Dr. Youssef El-Khatib (Mathematical Sciences)

### Associate Professors

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

1. Dr. Yusra Al-Dhaheri (Biology)
2. Dr. Ho Hon Leung (Mathematical Sciences)
3. Dr. Mustapha Aouchiche (Mathematical Sciences)
4. Dr. Zsolt Adam Balogh (Mathematical Sciences)

## College Excellence Awards

The College is proud to recognize the following faculty members for their contributions to the institution.

- **Teaching:** Prof. Ahmad Al Rawashdeh (Mathematical Sciences)
- **Scholarship (Theoretical Science):** Prof. Salah Nasri (Physics)
- **Scholarship (Experimental Science):** Prof. Hakim Saibi (Geosciences)
- **Service:** Prof. Saleh Thaker (Physics)

## Certified CAA reviewers



Prof. Sayed Marzouk (Chemistry) and Dr. Asma Al Menhali (Biology) have successfully qualified as CAA certified reviewers.

# Student Achievements

## Dean's List

The following students featured in the Dean's List of Spring 2022. The College would like to congratulate them for their academic achievement and encourages everyone to strive for excellent academic performance.

1. Ms. Aaish Hamed Ali Mattar Al Jabri (Biology)
  2. Ms. Aiswarya Sethu (Chemistry)
  3. Ms. Aysha Emad Ibrahim Batainah (Mathematical Sciences)
  4. Ms. Fatma Ibrahim Hassan Abdulrahim Almulla (Biology)
  5. Ms. Fatmah Ali Abdulla Mohamed Alhindaassi (Biochemistry)
  6. Ms. Leen Arfan Alrawas (Physics)
  7. Ms. Maram Sami Suliman Elemam (Biology)
  8. Ms. Mariam Rami Nedal Hamdan (Biochemistry)
  9. Ms. Maryam Ahmed Salem Ahmed Almurshidi (Biology)
  10. Ms. Mazna Rashid Ali Khalfan Alqaydi (Biology)
  11. Ms. Meera Ahmed Salem Hmoud Alshamsi (Biochemistry)
  12. Ms. Meera Munjed Maraqa (Biochemistry)
  13. Ms. Mouna Yahia Youssef (Chemistry)
  14. Ms. Rayaan Syed Safiuddin (Chemistry)
  15. Ms. Zaina Abaulla Hadi Saleh Al Ahbabi (Biology)
1. Mr. Ali Hamdan Hamad Ali Alsheraifi (Mathematics)
  2. Mr. Amar Yasser Aljumaa Aldakheel (Mathematics)
  3. Mr. Esmael Hasan Mohamed Qasim Alhammadi (Biology)
  4. Mr. Hamad Khalifa Mukhtar Ahmed Alblooshi (Chemistry)
  5. Mr. Jean Damascene Tuyisabe (Biology)
  6. Mr. Khalid Saud Abdullah Mohamed Alahmed (Biology)
  7. Mr. Kinan Adnan Khudir (Biology)
  8. Mr. Louis De Mont Fort Mugisha Ntwali (Biology)
  9. Mr. Mohammed Abdulsamad K Alminhali (Physics)
  10. Mr. Mohammed Amr Mohammed Elsaid Hassan Shata (Biology)
  11. Mr. Muneb Redwan Mukhtar (Chemistry)
  12. Mr. Saeed Ahmed Salem Saif Alsaeedi (Biology)
  13. Mr. Sultan Ali Jama (Chemistry)
  14. Mr. Yaman Mothanna Sabsabi (Mathematics)
  15. Mr. Yousef Mohammad Yousef Salah (Mathematics)

## Sustainable Development Goals Debate



A group of Chemistry students - Aya Azmi Abdallah Alhamshari, Omnia Yahya Hassan Elsheikh and Basant Sayed Ali Sayed Elabyad - received the Second Place at the Sustainable Development Goals Debate organized as part of EXPO 2020.

## Reading Month Competitions



Ms. Maryam Poolad and Mr. Hamad Alblooshi from the Department of Chemistry won a short story writing competition organized by the College of Humanities and Social Sciences as part of the Reading Month 2022 competitions.

## Graduate Student Research & Innovation Competitions



The following winners of the Graduate Students Research & Innovation Competitions were honored by the College

### Cellular & Molecular Biology

Ms. Shahana Seher Malik

### Ecology & Environmental Sciences

Mr. Stephan Bruns

### Chemistry

Ms. Lamia Siddiq

Ms. Sandy Almeharth

### Geosciences

Mr. Khalid Galal Eldin Khair

### Mathematical Sciences

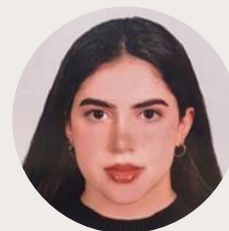
Ms. Fouzia Shaheen

### Physics

Ms. Mehreen Javed

Ms. Sabah Khan

## Sharjah Culture & Arts Competition



Ms. Fatema Iss Aljasim (Geosciences) won the third place in the University of Sharjah Culture and Arts Competition.

# Staff Achievements

## International Happiness Day



On the occasion of the International Day of Happiness, Ms. Halima Almeqbali (Lab Specialist, Biology Department) received an award from the 'The Emirates Center for Happiness Research' for volunteer work at EXPO 2020.

## PhD in Ecophysiology



Mrs. Naeema Alshamsi (Lab Specialist, Biology) received her PhD in Ecophysiology from the University of Malaga, Spain.

## Staff Achievement Award



Ms. Abla Alkaabi, Senior Financial Officer received an achievement award from the Provost for her efforts as a senior financial officer.





# Research Activities

## International Research Collaborations

The COS has been actively involved in establishing and building on several international collaborations during this. Multiple research projects and other activities are currently ongoing as part of these collaborations with

- University of California Berkeley
- Chinese Academy of Sciences
- CERN
- Murchison Widefield Array, Curtin University, Australia
- University of Texas, Austin, USA

## Publication Outcome

The COS leads among the colleges of UAEU in terms of total number of publications in Scopus-indexed journals for 2020 and 2021 with 409 publications in 2020 and 498 publications in 2021. The College is proud of the hard-work and dedication of its researchers for achieving this.

## Patents



Eight US patents were awarded to 7 members - Prof. Ihab M. Obaidat and Dr. Sambasivam Sangaraju (Physics), Prof. Amr Amin (Biology), Prof. Yaser E. Greish (Chemistry), Dr. Adel Najar (Physics), and Prof. Alaa A. Salem and Ms. Shaikha Al Neyadi (Chemistry) - of the COS community.

## Re-Accreditation of the BSc in Chemistry program



The undergraduate Chemistry Program received two prestigious international accreditations in 2017- the Royal Society of Chemistry (RSC) and the Canadian Society of Chemistry (CSC). The Chemistry undergraduate program was re-accredited by RSC in 2022 until August 2027, while the CSC re-accreditation is due in the year 2023. The CSC also accredited the undergraduate Biochemistry program within the Department of Chemistry in 2017, and it is up for renewal next year in 2023.

## Awards for publications in top journals

Once again, COS remains on top of the list of UAEU colleges in terms of annual research awards for papers published in the top journals (1%, 5%, 10%, and 25%) for both 2020 (73 papers) and 2021 (128 papers).

## Awarded Research Grants 2021-2022

Faculty members of the COS has been quite successful in being awarded a number of internal grants. In terms of internal grants, this includes 12 UPAR, 4 Strategic Program, 4 AUA, 5 start-up grants and 3 UAEU-Zayed University collaboration grants. Two external ADEK grants have also been secured by COS faculty members. The total allocated research funding from these grants is close to AED 16 million.

## Greenhouse in Collaboration with the National Center of Metrology



In collaboration with National Center of Metrology, UAEU established a new greenhouse for the Department of Biology. The greenhouse, with a total area of 240 m<sup>2</sup>, was designed according to international standards with control system for adjusting conditions necessary for plant growth. The collaboration will study the effect of environmental factors on native plants of the UAE and crops as well as factors that affect their growth and production to support sustainable food security.

## Departmental Seminars

Seminars provide a platform for exchange of scientific ideas. The constituent departments of COS organized a number of scientific seminars during Spring 2022 (Biology: 4; Chemistry: 4; Geosciences: 4; Mathematical Sciences: 5; Physics: 4) featuring both internal as well as external speakers from international institutions.

# Student Activities

## Honors Students Program

Honors students of COS were given the opportunity to visit Expo2020 and attend events at the Switzerland and France pavilions. They were also invited to meet with the astronaut Charlie Duke, the 10<sup>th</sup> and youngest man to walk on the moon and the lunar module pilot of Apollo 16.

In collaboration with the Student Success Unit (SSU) Learning Centers at UAEU, the COS Honors Students Committee organized two programs targeting senior honor students (Pathway Program) and junior honor students (Skills for Success) in the academic year 2021-2022. The collaboration started in September 2021 and ended in March 2022 during which period 19 online workshops were organized. These events were delivered by the Writing, Speaking, Tutorial and Technology centers.



In collaboration with the Emirates Center for Happiness Research, COS Honor Students Program organized a workshop titled "Positive Emotions and Character Strength". This workshop was delivered by Ms. Noof Al Junaibi, the Director of Emirates Center for Happiness Research.

## COS Exhibition

17-18 March 2022



On the occasion of International Science Week, the COS News Team organized the "COS Exhibition". Each booth represented a different department of the college. Students were exposed to scientific experiments and live applications in a socially stimulating and enjoyable setting, increasing their curiosity about various fields of Science

## Poster Presentation Day of Internship Students

11 May 2022



On 11 May 2022, the College organised an on-campus face-to-face poster presentation event, where more than 100 students presented their internship experience in a poster presentation. It was the first face-to-face gathering done after 2.5 years of lockdown due to the COVID-19 restrictions. The Dean, members of the College council and faculty members moved through all poster listening to students who were excited and enthusiastic to discuss their internship experience at the work site.

