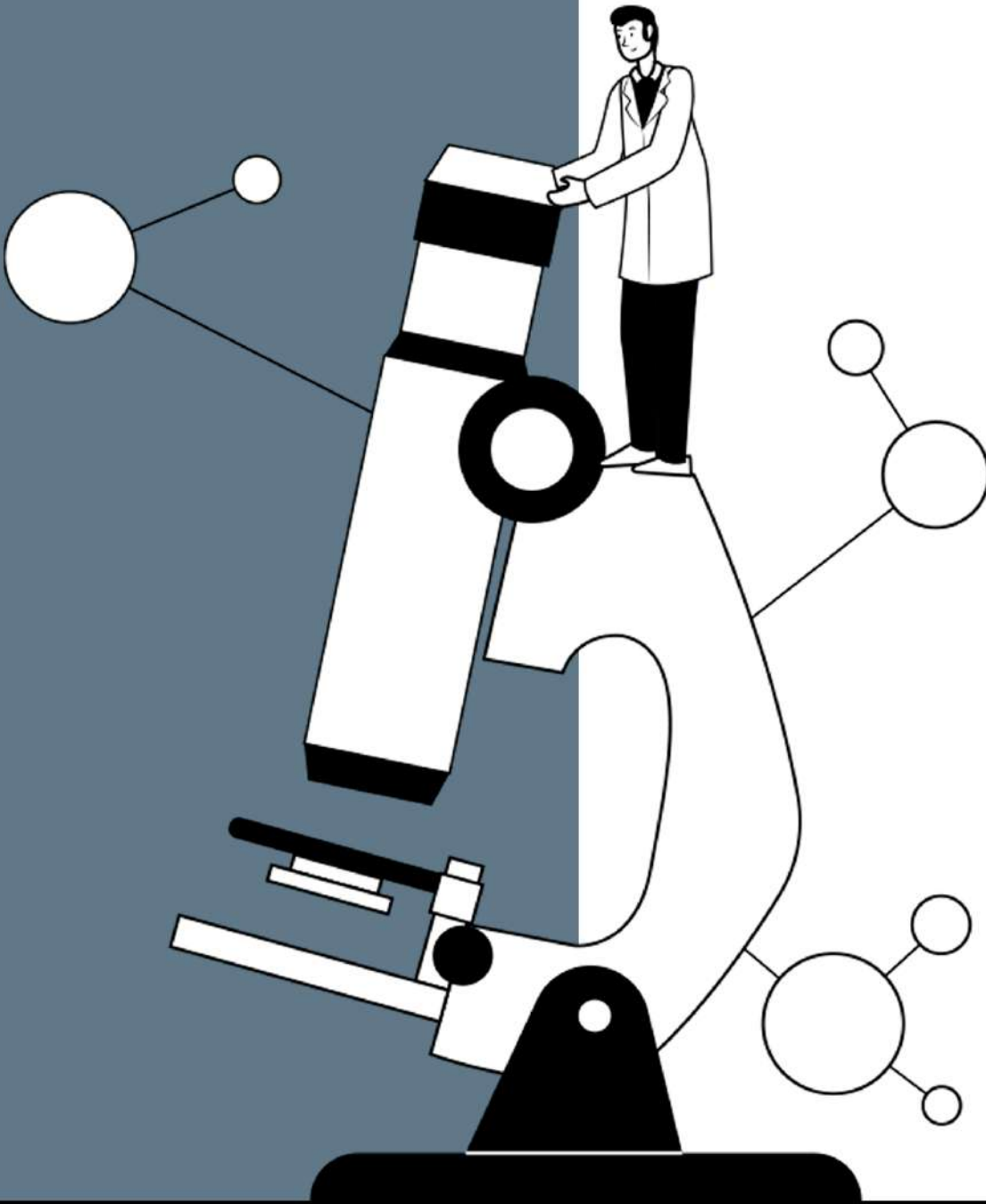


SCILIGHTS SPRING 2023



• DEAN'S MESSAGE	1
• RESEARCH ACTIVITIES	9
• COMING EVENTS	13

• STUDENT ENROLLMENT	2
• FACULTY & STUDENTS ACHIEVEMENTS	9

• EVENTS & ACTIVITIES	3
• LEAVING FACULTY MEMBERS	12

DEAN'S MESSAGE



Welcome to scilights Spring 2023, the College of Science Newsletter!

As we conclude another eventful semester, I am thrilled to reflect on the remarkable successes and valuable lessons we have experienced together.

Foremost among our achievements is the outstanding progress made in scientific research. The College has emerged as the leading college in research productivity. In 2022, our dedicated faculty members and students contributed to a total of 549 publications in Scopus-indexed journals, marking an impressive increase of over 7% compared to 2021. On average, each faculty member produced 4.85 papers. Notably, more than 67% of these publications were featured in Q1 journals. Our researchers were published in prestigious publications like Nature Microbiology, Science Advances, Journal of the American Chemical Society, Coordination Chemistry Reviews, Nature Communications, Astrophysical Journal Letters, and Scientific Reports.

Additionally, the College successfully strengthened its collaboration with the eminent European Center for Nuclear Research (CERN). We proudly facilitated a post-doctoral researcher from UAEU to work at ATLAS/CERN, and accomplished undergraduate student, chosen through a competitive selection process by CERN, was sponsored to partake in the summer training program in Geneva, Switzerland. Furthermore, the Department of Physics admitted one PhD and one MSc student as part of our ongoing collaboration with CERN.

Our commitment to attracting and nurturing talented individuals was a top priority throughout the year. We are pleased to announce that our student body now comprises 1610 undergraduate and 202 graduate students. Moreover, we proudly graduated 266 undergraduates and 51 graduate students during this academic year.

Furthermore, I am delighted to share that one of our faculty members has been promoted to the rank of Full Professor, while eleven others have been promoted to the rank of Associate Professor. Additionally, we have made significant strides in upgrading our research infrastructure. Thanks to a generous donation from the National Center of Meteorology, the Department of Biology now boasts its own well-equipped greenhouse. Moreover, our collaboration with the College of Medicine and Health Sciences on the mice facility has resulted in the preparation and approval of the facility's accreditation proposal by the American Association for Accreditation of Laboratory Animal Care (AAALAC).

Our internship program continues to flourish, with 250 of our students gaining invaluable work experience across various organizations nationwide, thereby enhancing their preparedness for the competitive job market. Moreover, we have partnered with the Science and Innovation Park and Meta-Excellence to equip our students with the essential skills and mindset necessary for success in the job market. One hundred of our students received comprehensive training, ensuring they possess the highest caliber of skills and expertise. Twelve of our best students spent 3-week summer training at Oxford University.

As we bid farewell to this eventful academic year, I extend my heartfelt appreciation to each member of our College of Science community for their unwavering dedication, resilience, and commitment to excellence. Together, we have achieved remarkable milestones and weathered the challenges that crossed our way, emerging stronger and more determined than ever.

Sincerely,

Prof. Maamar Benkraouda
Dean, College of Science

Editors

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

Dr. Aaron Henderson (Biology)

Dr. Soleiman Hisaindee (Chemistry)

Prof. Abdulrahman Fowler (Geosciences)

Dr. Humberto Rafeiro (Mathematical Sciences)

Prof. Mofreh Ramadan Zaghoul (Physics)

Mr. Mohamed Shahid (Dean's Office)

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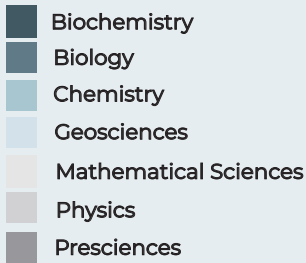
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STUDENT ENROLLMENT

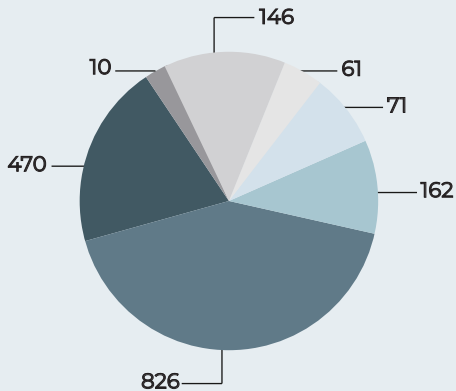
PROGRAMS IN PROGRESS

- BSc in Data Science
- MSc in Forensic Science
- Minor in Materials Science

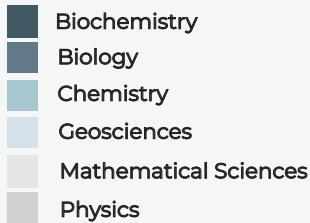
UNDERGRADUATE PROGRAMS



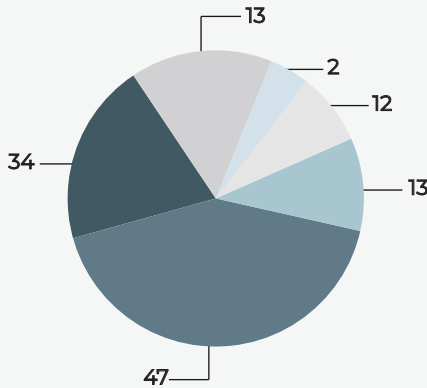
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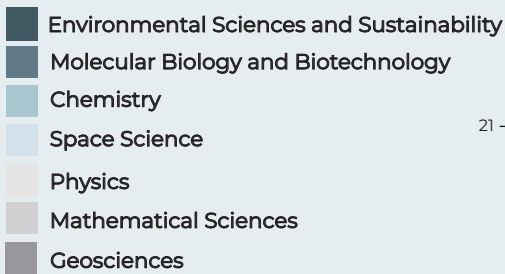
GRADUATION STATISTICS



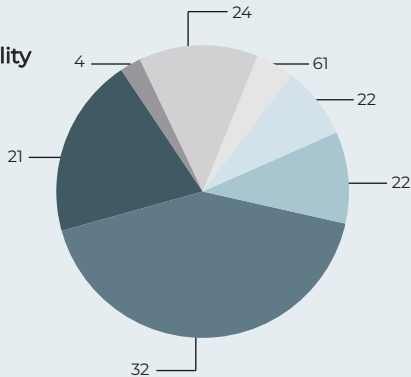
TOTAL: 121



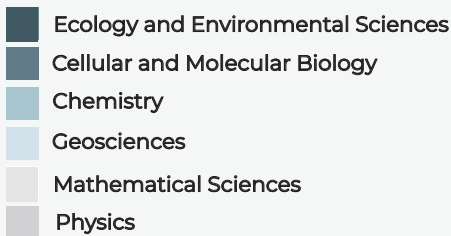
MSC ENROLMENT BY PROGRAM IN SPRING 2023



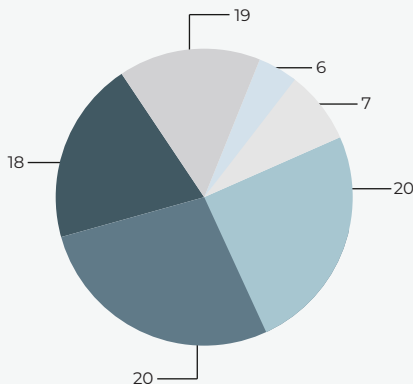
TOTAL: 139



PHD ENROLMENT BY PROGRAM IN SPRING 2023



TOTAL: 90



EVENTS & ACTIVITIES

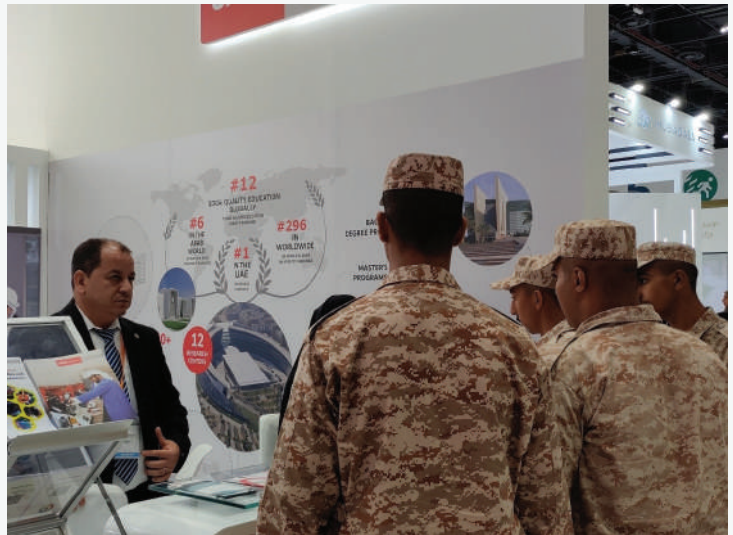
MARINE RESEARCH VESSEL GAYWUN

During the NAFTEX exhibition, a group of Marine Biology course students from the Biology Department, College of Science at United Arab Emirates University (UAEU), visited the Marine Research Vessel GAYWUN, which belongs to the Environmental Agency of Abu Dhabi. GAYWUN is the first equipped marine research vessel in UAE's history. The ship research equipment demonstration and explanations about the ship's facilities and capabilities by Prof. Waleed Hamza (UAEU) and the ship crew have inspired the students for designing their future career and they became enthusiastic to be involved on Marine Research.



COS PARTICIPATION IN NATIONAL SERVICE CAREER FAIR 2023

Dr. Abdelouahid Samadi represented COS at the National Service Career Fair 2023 which was held in Abu Dhabi National Exhibition Center on 6-8 March, 2023. This exhibition aimed to open channels of communication between graduates from the national and reserve service in the armed forces and the exhibitors from the government and private sectors to find job opportunities for the graduates, as well as to provide an opportunity for those who wish to continue their education.



GRADUATE STUDENTS RESEARCH & INNOVATION COMPETITIONS

(INNOVATION WEEK 2023)

In relation to the Innovation Competitions activities, the College of Science and the Department of Physics organized an event entitled "Space Exploration beyond Planet Earth". We hosted Astronaut Roberto Vittori from the European Space Agency, and Astronomer Robert Wittenmyer from the University of Southern Queensland in Australia. Roberto made us discover the history of space exploration and life on the International Space Station, and Robert took us on a journey to explore planets outside our own solar system. The other innovation activities conducted are: Undergraduate and graduate students research competitions, administrative staff innovation competitions, workshops, and seminars.



EVENTS & ACTIVITIES

INTERNATIONAL BIOLOGY OLYMPIAD CAMP

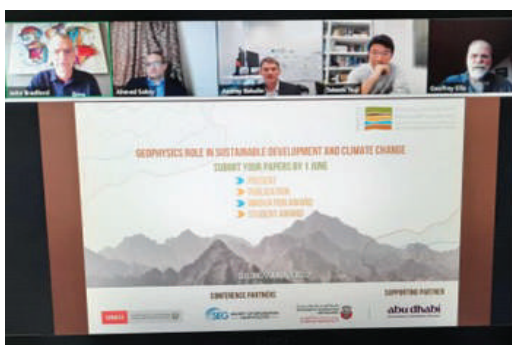
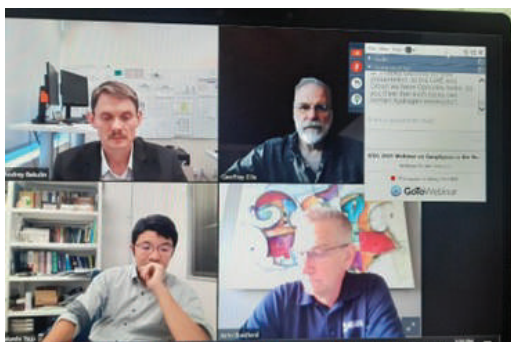
The 3rd International Biology Olympiad Camp was held from May 30-29 (two full days) and consisted of different activities including the preparation of bulk chemicals by scientific assistants (supervised by Prof. Pradeep Burma, Prof. Saman Khani, Dr. Mayank Gururani and Prof. Sabir Bin Muzaffar), conducting 'mock' Ecology and Ethology and Bioinformatics practical exams. The bulk chemicals prepared were used to conduct 'mock' exams between June 05-09 as part of the streamlining of 'Biochemistry' and 'Molecular Biology' experiments.



ICEG 2023 WEBINAR

The first webinar of ICEG 2023 was conducted on 23rd May 2023 on the topic of 'Geophysics in the Energy Transition' covering areas on geothermal, hydrogen, CCUS and more. Panelists include Ahmed Sabry (SLB), Geoffrey Ellis (US Geological Survey), Andrey Bakulin (Saudi Aramco) and Takeshi Tsuji (University of Tokyo) with moderator John Bradford (Colorado School of Mines). The below topics were addressed:

- Identifying potential for geothermal and CCUS (evaluation for Storage).
- Geophysics applications in natural hydrogen exploration.
- Smart DAS uphole acquisition system enables seismic monitoring of large CCUS projects in a desert environment.
- Portable Active Seismic Source (PASS) for continuous monitoring of CO₂ storage and geothermal reservoirs.



INTERNATIONAL CHEMISTRY OLYMPIAD (ICHO)

The 55th International Chemistry Olympiad (ICHO) was held in July-2023 in Zurich, Switzerland. ETH University hosted the students and in the captivating landscapes of Switzerland. This prestigious event gathers the brightest young minds from around the world to showcase their passion for chemistry and engage in thrilling academic challenges. ETH University, renowned for its contributions to the field of chemistry, will provide the perfect setting for this international gathering. We are happy to announce the training camp for the UAE national team for the 55th ICHO to be held in Switzerland. A training camp was held in UAE University science labs for physical chemistry, organic chemistry, analytical chemistry and biochemistry). The nation building is a responsibility that UAE University has always proudly participated in as UAE's first and best University in the area of sciences. The UAE University is very proud to collaborate with the Ministry of Education on this important project to develop skills and capacity in the UAE. UAE team will be led by Dr. Fathy Hassan from Chemistry Department along with Mr. Abdallah & Mr. Sachin from the Ministry of Education.



EVENTS & ACTIVITIES

CHATGPT SEMINAR

Ph.D student Mr. Khalid ElHaj (under the supervision of Dr. Dalal Alshamsi) presented a seminar on the latest advancements in AI technologies on May 12, 2023. He provided an overview of large language models (LLMs) and their importance in AI research with special focus on ChatGPT. He discussed the advantages of ChatGPT (such as natural language understanding and human-like responses) and its disadvantages (including bias and lack of real-world understanding). Arguments both for and against ChatGPT were presented, including concerns over misuse and ethical considerations. The presentation also addressed the impact of ChatGPT on research productivity.



NONLINEAR PHYSICS GROUP CONFERENCE

The Nonlinear Physics Group at the Department of Physics organized a three-day conference titled "Conceptual Results in Nonlinear Physics," which was held in February 20-23, 2023. The conference was held both face-to-face and virtually. Several speakers from prestigious universities attended and discussed their papers.



AMERICAN CHEMICAL SOCIETY (ACS)-UAEU CHAPTER

The UAEU joined other ACS student chapters in the UAE with the aim to promote Chemistry in UAEU and to foster a greater sense of community and opportunities between Science, Engineering and Medical students.



The Council
of the
American Chemical Society
in accordance with the wishes of the Society
has designated the University of the
United Arab Emirates
University
International Student Chapter
January, 2023



WORKSHOP ON AI APPLICATIONS

An online key workshop on artificial intelligence was held Thursday, 15 June 2023, by Mr. Khaled Elhaj, a PhD student at the Department of Geosciences, as part of the COS Honor Students Committee's preparations to create a new COS Artificial intelligence Club the following semester.

Workshop:
Introduction
to AI
Applications
in COS

By Khalid ElHaj
PhD Candidate,
Geosciences Department



SOCIAL BREAKFAST

A social breakfast was held on Friday, March 10, 2023, in which more than 100 faculty and staff members of the College of Science gathered.



EVENTS & ACTIVITIES

PHYSICS DEPARTMENT INTERNSHIP POSTER EXHIBITION

The Department of Physics has organized a poster presentation day for internship students during the summer semester on Tuesday, June 20, 2023, from 9:30 a.m. to 11:30 a.m. in F1-Building. There were seven students who have presented their internship work.



GEOSCIENCE MUSEUM

On April 12, 2023, Prof. Ahmed Murad, Associate Provost for Research, and Prof. Maamar Benkraouda, Dean of the college, opened the Geosciences Museum in Building E4 after its renovation. There are 10 sections containing more than 460 geological local and international samples of minerals, rocks and fossils. In addition, displays pertaining to the role of geosciences in industry such as oil and ceramics, as well as field geological tools and devices that are exhibited in 35 showcases. The opening ceremony was organized by Prof. Hassan Arman, Head of the Department of Geosciences, faculty, staff and students.



VISITS OF ITALIAN INSTITUTES AND COMPANIES

The Associate Provost Prof. Ahmed Ali Murad and Dean of COS Prof. Maamar Benkraouda visited the following important research labs:

- Gran Sasso National Lab in L'Aquila, Italy.
- STMicroelectronics Company in Milan, Italy.
- Elettra Synchrotron in Trieste, Italy.

The visit aimed to strengthen the research and student training collaboration. Two agreements are being finalized.



VISIT OF PROF. SHENGZHONG FRANK LIU, SHAANXI NORMAL UNIVERSITY-CHINA

Prof. Shengzhong Frank Liu, Director of Shaanxi Engineering Lab. for Advanced Energy Technology at Shaanxi Normal University, China, and Associate Director of Solar Energy Department at Dalian Notional Laboratory for Clean Energy in China visited the Physics Department from January 20 till February 2, 2023. During his visit, Prof Liu conducted several research meetings with faculty from Physics, Chemical and Electrical Engineering departments. Also, Prof. Liu gave a presentation in Physics Department about "Perovskite - A Wonder Material for Photo-electronics".



FANR VISIT

Delegates from COS visited FANR Labs for Environmental Radiochemistry and calibrations to discuss the possible research collaboration between FANR and the College of Science.



EVENTS & ACTIVITIES

SCIENCE EXHIBITION 2023

The 2023 College of Science (COS) Exhibition imprinted as a glorious chapter, capturing hearts and minds, in the colorful tapestry of the academic year. This important event was planned by the College of Science News Team (COSNT), and it served as a monument to their commitment and careful preparation. This magnificent event highlighted memories of inspiration, celebrating achievements and fostering collaboration. 14 Schools from across Abu-Dhabi, Dubai, and Al-Ain, including the People of Determination Center, all united, transcending boundaries and embracing diversity. The 2023 COS Exhibition garnered significant acclaim and widespread media attention from esteemed publications like Al-Bayan, Al-Ittihad and Al Khaleej newspapers, as well as captivating coverage by Al Fujairah TV. It unfolded as a vibrant tapestry intricately woven with passion, intellect, and an unwavering faith in the profound impact of science.



STUDENT ACADEMIC HONORS & AWARDS CEREMONY

The College of Science in collaboration with the Honor Student Committee organized an Honors Ceremony, discussing the importance of honor program and awarding the outstanding honor students of Fall 2022. The COS Dean delivered a welcome speech followed by an overview of the Honors Program by Dr. Abdelouahid Samadi. Dr. Elizabeth Whitehouse from SSU also addressed the audience as a guest speaker.



EVENTS & ACTIVITIES

END OF THE YEAR GATHERING

Organized by the College of Science News Team (COSNT), we gathered in a splendid event, celebrating a tapestry of achievements and milestones that adorned our journey. With pride, we honored the faculty and students whose patents and publications illuminated the academic landscape, propelling us to new horizons of knowledge. Winners of the Graduate Research and Innovation Competition embodied the spirit of inquiry and innovation, igniting inspiration in our midst. We showcased the enduring impact of the College of Science, celebrating students' vibrant activities during national and international days, fostering cultural exchange and communal engagement. Each Club's unwavering dedication and tireless efforts were acknowledged, and their collective achievements were woven into our success. Yet, as we rejoiced, we bid farewell to departing faculty members, grateful for the wisdom they imparted and their indelible mark upon our institution.



OXFORD UNIVERSITY SUMMER INTERNSHIP



During the summer 12, 2023, students and two supervisors from the College of Science at the United Arab Emirates University (UAEU), joined peers from the University of Southern California (USC) for an enriching and unmatched 3-weeks summer internship at prestigious University of Oxford in the UK (Ranked #1 globally-THE). Residing at the unique Somerville College Oxford they embarked on an intensive curriculum, focusing on global health, tropical medicine, vaccinology, pharmacology, and health policy taught by Oxford's distinguished faculty. Students also had guided tours of London Francis Crick Institute, Wellcome Trust Collections, Science Museum, Natural History Museum, Dr Jenner's Museum and the Botanical Gardens. Additionally, they visited Biochemistry and Pharmacology Departments at the University of Oxford, along with other landmarks like Berkeley Castle, Blenheim palace, Stonehenge, City of Bath and Islamic institute University of Oxford. Concluding their internship, students presented their end-of-term projects to their peers from UAEU, USC and Oxford and received certificates for their hard work.

CERN SUMMER INTERNSHIP PROGRAM

CERN, the European Center of Nuclear Research, has chosen one student (Adnan Mohamed Ali Alwahedi) from the Department of Physics for the summer internship 2023. Mr. Adnan Alwahedi completed the internship satisfactorily and delivered a presentation by the end of the program.



RESEARCH ACTIVITIES

AWARDED RESEARCH GRANTS 2022-2023

COS Faculty members have been quite successful in being awarded several internal research grants. including 18 UPAR, 3 Strategic Program, 2 AUA, 4 NF, 18 SDG, 2 start-ups and 51 SURE PLUS grants.

AWARDS FOR PUBLICATIONS IN TOP JOURNALS

COS remains on top of the list of UAEU colleges in terms of annual research awards for papers published in the top journals in 2022 top 1% (14 papers), top 10% (167 papers) and 25% (359 papers);

PUBLICATION OUTCOME

The COS leads in terms of total number of publications in Scopus-indexed journals with 549 publications in 2022. The College is proud of its researchers' hard work and dedication in attaining this.

DEPARTMENTAL SEMINARS (SPRING 2023)

The various COS departments organized several scientific seminars featuring both internal and external speakers from international institutions. The number of seminars organized are as follows: Department of Biology (5), Department of Chemistry (5), Department of Geosciences (6), Department of Mathematical Sciences (8) and the Department of Physics (5).

FACULTY & STUDENT ACHIEVEMENTS

Prof. Qasem Al Mdallal from the Department of Mathematical Sciences received Khalifa Award for Education (Cycle 2023 :6)
Category: Distinguished University Professor



Prof. Synan AbuQamar from the Department of Biology was conferred the Khalifa International Award for Date Palm and Agricultural Innovation.



Prof. Sayed Marzouk of the Department of Chemistry received the Chancellor's Innovation Award in the category of technology (8th Cycle - 2022-2023). His project was titled Development and Successful Commercialization of Cells for Use in Chemical Analysis. He also received University Excellence Award in Service and H.E. Zaki Anwar Nusseibeh, Chancellor of United Arab Emirates University, honored Prof. Sayed Marzouk among the WASC Institutional Accreditation Committee, in which he was the representative of the College of Science.



COLLEGE EXCELLENCE AWARDS



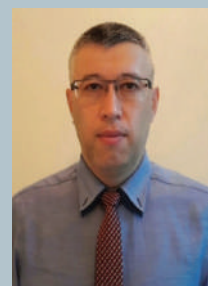
Name: Dr. Iltaf Shah
Department: Chemistry
Award Category: Teaching



Name: Prof. Qasem Mdallal
Department: Mathematics
Award Category: Scholarship
(Theoretical Science)



Name: Prof. Khaled El-Tarabily
Department: Biology
Award Category: Scholarship
(Experimental Science)



Name: Prof. Farrukh Mukhamedov
Department: Mathematics
Award Category: Service

FACULTY PROMOTIONS

Dr. Salem Ben Said of the Department of Mathematical Sciences was promoted to Full Professor.



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



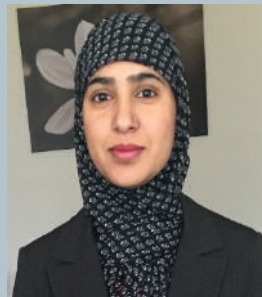
Dr. Oliver Manlik
Department of Biology



Dr. Khalid Muhammed
Department of Biology



Dr. Fathy Hassan
Department of Chemistry



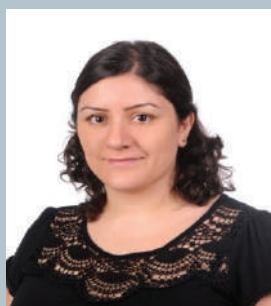
Dr. Nayla Munawar
Department of Chemistry



Dr. Alejandro Perez
Department of Chemistry



Dr. Muhammad AbdulLatif
Department of Physics



Dr. Rim Fares
Department of Physics



Dr. Naslim Neelamkodan
Department of Physics



Dr. Roland Young
Department of Physics



Dr. Haila Aldosari
Department of Physics

COLLEGE TROPHY COMPETITIONS 2023

During the College Trophy Competitions 2023, Dr. Khalid Mohammad and Dr. Amit Kumar from the Department of Biology finished second in the Tennis tournament. Dr. Khaled Al Bloushi of the Geosciences Department took first place in the Chess competitions, and Dr. Ayman AlSayed of the Chemistry Department took first place in the Table Tennis tournament.



MEMBERSHIP OF ARAB-GERMAN YOUNG ACADEMY OF SCIENCES AND HUMANITIES (AGYA)

Dr. Mohamed Qenawy from the department of Chemistry was selected as an active AGYA member among more than 500 applicants from the Arab region. AGYA aims to establish a community of outstanding Arab and German researchers, who are at an early stage of their academic careers and supports joint innovative projects in various fields of research, science policy, and capacity building across different disciplines in the Sciences and Humanities. Dr. Qenawy developed extensive knowledge of materials science, wide range of laser spectroscopy techniques and synchrotron-based-X-ray spectroscopy techniques.



STUDENT AWARDS

College Trophy Competitions 2023: Our sports teams participated in the College Trophy Competitions 2023 with good spirits won several competitions in both male and female categories, particularly in Beach Volleyball, Chess, Table Tennis and Volleyball. This victory was a clear demonstration of the exceptional talent and competitive spirit of our students.



Best Poster Award: Miss Dina Ashraf, a Chemistry PhD student, was named Best Poster Award in Chemistry at the Khalifa University Graduate Student Research Conference.



SEG | DGS MIDDLE EAST CHALLENGE BOWL COMPETITION:

Students Rayan Sayed Aldeen and Balqeas Albalooshi from the Department of Geosciences obtained third place in the SEG-DGS Middle East Challenge Bowl and 4th place in the Imperial Barrel Award Competition. Congratulations to the participants in these esteemed competitions, both students and mentors.



Rayan Sayed Aldeen



Balqeas Albalooshi

UAEU Short Story Contest 2023: Students Gameilah Abdulgaber (Department of Chemistry) and Alyazia Alqemzi (Department of Biology) on the Short Story Contest 2023 under the theme 'Human Innovation: AI & the Human Experience', conducted by the Department of Languages and Literature as part of the Innovation Month 2023 activities.



Gameilah Abdulgabar Alyazia Alqemzi

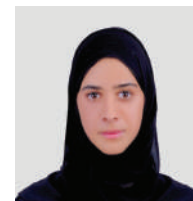
Sharjah Award for Voluntary work: Reem Abdul Fattah from the Department of Mathematical Sciences won First Place (University students' category) in the 20th edition of the Sharjah Award for Voluntary work.



Reem Abdul Fattah

UAEU Reading Competiton 2023

Alshaima Jasim Alnaqbi (Department of Physics) won the first Place in University Reading Competiton 2023.



Alshaima Jasim Alnaqbi

Top Project Award: Afraa Mazen Taj Elddin of the Department of Biology won the Royal Society of Biology's (RSB) Top Project Award in Biological Sciences 2023. Afraa Mazen Taj Elddin was supervised by professors Khlaed El-Trabily and Synan AbuQamar.



Afraa Mazen Taj Elddin

LEAVING FACULTY MEMBERS

Eight faculty members left the College and UAEU by the end of the academic year 2022-2023. They will be truly missed in the college. We wish them well in their future endeavors.



Prof. Usama Al Khawaja
Department of Physics



Dr. Ehab Malkawi
Department of Physics



Prof. Ihab Obaidat
Department of Physics



Dr. Ahmed Alzamy
Department of Chemistry



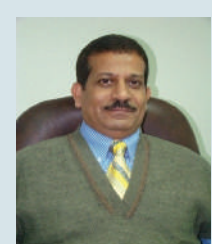
Dr. Mohamed Alnaqbi
Department of Chemistry



Dr. Saber Hussien
Department of Geosciences



Dr. Sulaiman Alkaabi
Department of Geosciences



Dr. Kamal Ali
Department of Geosciences

COMING EVENTS

Seventh International Conference on Engineering Geophysics (ICEG 2023)

19-16 October 2023

United Arab Emirates University, Al-Ain, UAE

UAE Microbiome 2023

Microbiome: Human, Plant, and Environmental Health - Applications and Challenges

“UAE Microbiome 2023”.

Date: November 2023 ,22-21

Location: Abu Dhabi National Exhibition Center (ADNEC), Abu Dhabi, United Arab Emirates.

2nd International Workshop on “Delay Differential Equations and Applications to Immunology and Infectious Diseases”

24-23 November 2023, UAE University

AUA-UAEU Academic Conference on Mars and Planetary Science

21-20 November 2023

United Arab Emirates University, Al Ain