UAEU كلية العلوم College of Science

جامعة الإمارات العربية المتحدة United Arab Emirates University

ANNUAL REPORT 2024-2025

COLLEGE OF SCIENCE

Produced by the Dean's Office, College of Science

cos.office@uaeu.ac.ae | https://cos.uaeu.ac.ae

Table of Contents

Dean's Message

As we conclude another eventful academic year (2024-2025), I am thrilled to reflect on the remarkable successes and valuable lessons we have experienced together. In this annual report, we take this opportunity to celebrate several significant milestones that have shaped the College of Science throughout the year.

The most remarkable achievement of the College of Science is its scientific research outcomes. Our faculty and students published a total of 722 papers in Scopus-indexed journals in 2024, representing an increase of over 13% compared to 2023. Some of these papers were featured in prestigious journals, such as (pls mention a couple of well-known journals).

About 14% of these papers were published in top 1% journals, and about 70% were published in Q1 journals, which reflects the quality of the research carried out in the College. Faculty members also secured numerous internal and external research grants totaling around AED 5,500,000.

Additionally, we established MOUs with several distinguished institutions such as, Dalian Institute & Lab on Advanced Materials (China), Shaanxi Normal University & Lab on Advanced Materials (China), Insilico Medicine (Abu Dhabi) Co, University of Insubria (Italy), Mediso Medical Imaging Systems Ltd. (Hungary). Our faculty were also recognized with nine patents, including five from the U.S. and three from Australia during 2024-2025.

A particularly proud milestone was the establishment of the CERN Data Center, achieved in collaboration with the College of Information Technology and the Division of Information Technology making UAE University the first institution in the Gulf region to join the Worldwide Large Hadron Collider (LHC) Computing Grid.

It is in this prestigious collaboration with ATLAS/CERN, that UAEU shared in the "Breakthrough Prize" (which is known as the Oscars of Science) that was awarded to CERN as a recognition of the cutting-edge research carried by the researchers of the participating member institutions. ATLAS received $1,000,000 that was decided to be awarded to excellent prospective PhD students as scholarship. As part of having an international experience, nine outstanding students from the College participated in a two-week summer internship at Nanyang Technological University (NTU), Singapore, where they engaged in hands-on entrepreneurship training, explored innovative ideas, and developed business strategies. Moreover, one of our best students was globally selected to participate in the 2-month CERN summer internship.

The College now proudly serves 1,706 undergraduate students, 127 master's students, and 89 PhD candidates. This year, we take pride in graduating 119 undergraduate and 56 graduate students. The faculty and students received several prestigious awards during 2024-2025, including the Khalifa Award for Education, the Chancellor's Innovation Award, and the College Excellence Awards, among others.

As we close this successful year, I extend my heartfelt gratitude to every member of our College of Science community for their dedication, resilience, and pursuit of excellence. Together, we have not only achieved remarkable progress but have also strengthened our collective resolve to reach even greater frontiers.

Prof. Maamar Benkraouda
Dean, College of Science

THE COLLEGE

Vision & Mission

Vision

The College of Science aspires to be a beacon of scientific innovation, a crossroad of international collaboration, nurturing a vibrant and creative community dedicated to advancing knowledge and providing innovative solutions for the UAE and beyond.

Mission

The College of Science is dedicated to fostering a forward-thinking and innovative scientific environment that inspires and empowers students to excel in their academic, research and entrepreneurial endeavours, and attracts world-class faculty who are leaders in their fields. The College aims to build strong collaborative partnerships with the local and world communities and industries, driving cutting-edge research, technological advancements, entrepreneurship and real-world solutions that contribute to societal progress.

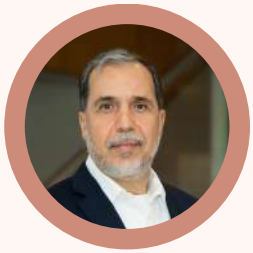
COLLEGE ADVISORY BOARD

The College Advisory Board, composed of eminent individuals with governmental and non-governmental backgrounds, guides the College to attain its mission and assists the College with its role in serving the nation. The Advisory Board met twice in 2024-2025, once each semester, to review College plans and achievements. The College strategic plan was reviewed regularly in these meetings. The Advisory Board also assisted with the hiring of some of the College graduates and the establishment of a greenhouse.

Name	Affiliation
Mr. Sultan Al Hajji (Chairman)	Senior Advisor, President Office, Mohamed bin Zayed University of Artificial Intelligence.
Dr. Abdulla Ahmed Al Mandous	Executive Director, National Center of Meteorology (NCM)
Mr. Saeed Mohammed Al Muhairi	Executive Director, Emirates Metrology Institute (EMI), Abu Dhabi Quality Conformity Council
Dr. Mohamed Murad Abdulla	Director, Decision Support Center, Dubai Police
Ms. Aayda Al Shehhi	Director, Radiation Safety, Federal Authority for Nuclear Regulation (FANR)
Eng. Suhail Thani Al Muhairi	Infrastructure & Services Coordination Division Manager, Municipalities and Transport Department, Al Ain City Municipality
Ms. Sheikha Al Maskari	Chief Innovation Officer & Founding member, UAE Space Agency
Mr. Salem Rashed Almatrooshi	Retired from ADNOC

THE COLLEGE ADMINISTRATION

College of Science Organization Chart



College Advisory Board

Prof. Maamar Benkraouda
Dean

Office of the Dean

- Senior Administrator (1)
- Administrator (1)
- Financial Officers (2)
- Service Assistant (1)

Dr. Asma Al Menhali
Vice Dean

Dr. Yusra Al Dhaheri
Asst. Dean for Student Affairs

- Academic Advisors-I (3)
- Executive Secretary (1)
- Senior Administrators (2)

Dr. Ruwaya Alkendi
Asst. Dean for Res. & Grad. Studies

- Administrator (3)
- MSc Program Coordinators (6)

Prof. Khaled Amiri
Head, Biology Dept.

- Administrator (1)

Prof. Abbas Khalil
Head, Chemistry Dept.

- Administrator (1)

Prof. Hasan Arman
Head, Geosciences Dept.

- Administrator (1)

Dr. Adama Diene
Head, Mathematics Dept.

- Administrator (1)

Prof. Saleh Thaker
Head, Physics Dept.

- Administrator (1)

College Council 2024-2025

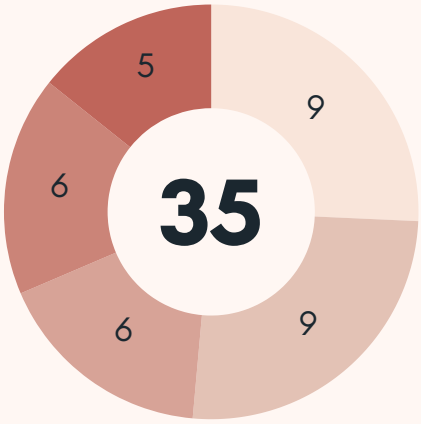
Prof. Maamar Benkraouda	Dean
Dr. Asma Al-Menhali	Vice Dean
Dr. Ruwaya Al-Kendi	Assistant Dean for Research & Graduate Studies
Dr. Yusra Al Dhahiri	Assistant Dean for Student Affairs
Prof. Khalid Amiri	Chair, Department of Biology
Prof. Abbas Khalil	Chair, Department of Chemistry
Prof. Hasan Arman	Chair, Department of Geosciences
Dr. Adama Diene	Chair, Department of Mathematical Sciences
Prof. Saleh Thaker	Chair, Department of Physics
Prof. Salah Nasri	Representative of Professors
Dr. Khalid Mohammad	Representative of Associate Professors

Program Coordinators 2024-2025

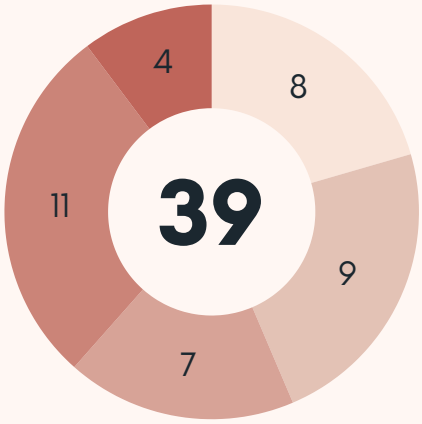
Prof. Sabir Bin Muzaffar	Environmental Sciences and Sustainability Program
Prof. Rabah Iratni	Cellular & Molecular Biology Program
Prof. Yaser Greish	Chemistry Program
Dr. Mabrouk Hassan	Geosciences Program
Prof. Farrukh Mukhamedov	Mathematics Program
Prof. Noureddine Amrane	Physics Program
Dr. Rim Fares	Space Science Program

Faculty Members

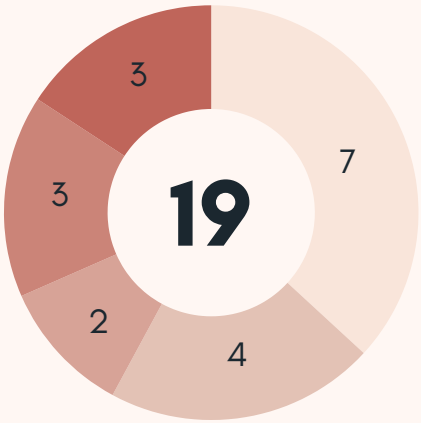
Biology



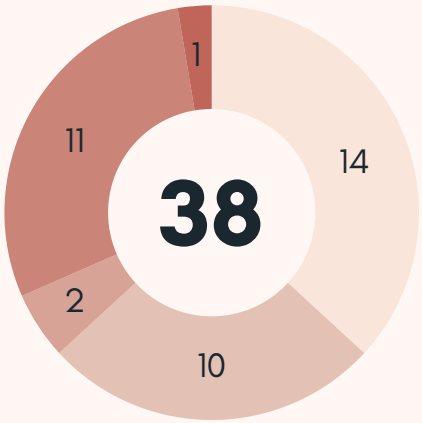
Chemistry



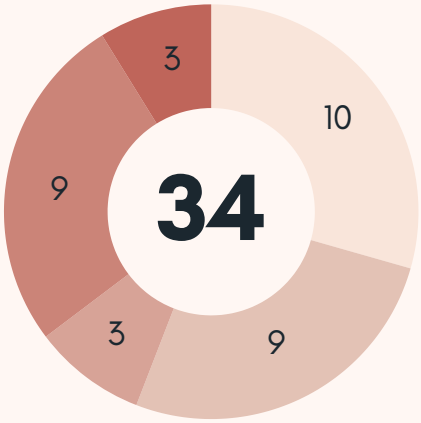
Geosciences

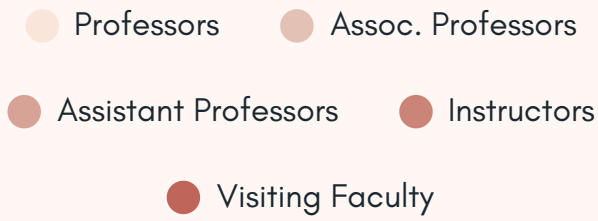


Mathematical Sciences



Physics





New faculty Members join College of Science in Academic Year 2024-2025

It is our pleasure to welcome you to the College of Science community. Your expertise, enthusiasm, and dedication to academia make you a valuable addition to our faculty team. As you embark on this new journey with us, we want to express our confidence in the positive impact you will have on our students, your colleagues, and the broader academic community.

Abbas Hassan
Associate Professor
Department of Chemistry
PhD: The University of Texas at Austin

Arwa Abdulla Omar
Assistant Professor
Department of Mathematical Sciences
PhD: University of Alberta, Canada

Stefan Wuttke
Visiting Faculty
Department of Chemistry
PhD: Humboldt-Universität zu Berlin, Germany

Mohamed Salaheldeen Abdelgader Abas
Instructor
Department of Mathematical Sciences
PhD: Central China Normal University (CCNU), China

Vikas Kumar
Assistant Professor
Department of Biology
PhD: Goethe University, Frankfurt, Germany

Sana Siddig Mohamedgamil
Assistant Professor
Department of Biology
PhD: The Julius Maximilian University of Würzburg, Germany

Ilias Fernini
Visiting Faculty
Department of Physics
PhD: University of New Mexico (Albuquerque, USA)

Sahar A. Kitaz
Visiting Instructor
Department of Biology
PhD: British University, Dubai, UAE.

Nour ElHouda Debouza
Visiting Instructor
Department: Biology
PhD: United Arab Emirates

Reports From the College Committees (2024-2025)

Research and Graduate Studies Committee

Coordinator: Dr. Ruwaya Alkendi

Members: Prof. Rabah Iratni, Prof. Sabir Bin Muzaffar, Prof. Yaser Greish, Dr. Mabrouk Hassan, Prof. Farrukh Mukhamedov, Prof. Noureddine Amrane, Dr. Rim Fares.

Dr. Ruwaya Alkendi

During the academic year 2024–2025, the Committee on Research and Graduate Studies implemented several initiatives aimed at improving academic quality, enhancing operational efficiency, and strengthening the overall performance of graduate programs within the College of Science.

One of the key accomplishments was the optimization of courses and curricula. The committee recommended the consolidation of college requirement courses at both the Master's and Ph.D. levels, specifically Research Methods I and II and Ethics of Scientific Research I and II. A comprehensive proposal for these changes is currently under preparation.

In the area of policy updates, the committee introduced a new requirement that students seeking postponements must provide an official letter from their employers to support their requests. This policy aims to promote transparency, accountability, and fairness in handling academic deferments.

The committee also engaged in strategic planning through a detailed market study of tuition fee structures for Master's programs across various institutions in the UAE. The study's findings were approved by the College Council and will guide future adjustments to program pricing and competitiveness.

To strengthen student recruitment and outreach, the Office of Research and Graduate Studies launched a dedicated LinkedIn account (COS UAEU). This platform has enhanced the college's digital visibility and engagement with prospective students, thereby supporting enrollment and branding efforts.

In terms of program development, the committee initiated the creation of BS–MS track programs in Environmental Science, Chemistry, and Geosciences. The BS–MS program in Chemistry became active during the academic year, while the other two programs are under review. Additionally, the committee explored the introduction of non-thesis options for Master's programs to provide more flexible learning pathways. The Department of Biology is currently preparing a proposal for the implementation of a non-thesis track.

Overall, the Committee on Research and Graduate Studies made significant progress during the 2024–2025 academic year, demonstrating its commitment to continuous improvement in academic programs, policy development, and student engagement within the College of Science.

Program and Curriculum Committee (PCC)

Coordinator: Prof. Nafaa Chbili

Members: Prof. Ala Aldahan, Dr. Sofyan Alyan, Prof. Ahmed Alrawashdeh, Prof. Alaa Eldin Salem, and Prof. Nacir Tit.

Prof. Nafaa Chbili

During the academic year 2024-2025, the College Program and Curriculum Committee conducted an extensive review and revision of all seven undergraduate Bachelor programs offered by the college, namely Biology, Biochemistry, Chemistry, Geosciences, Mathematics, Mathematics of Data Science, and Physics. The revision primarily focused on restructuring the General Education requirements, which were reduced from thirty-three to twenty-one credit hours. The reallocated twelve credit hours were distributed among other components of the respective programs. These revisions were approved and are scheduled for implementation starting in Fall 2025.

In addition to program revisions, the committee reviewed and approved new course proposals submitted by the Geosciences Department. It also evaluated and endorsed an integrated BS-MS program in Geosciences, which subsequently received approval from the University Academic Council and is set to commence in Fall 2025. Furthermore, the committee discussed a proposal for a new Bachelor of Science program in Space Science; this proposal is currently undergoing revisions to meet academic and institutional standards. A proposal to revise the Bachelor of Science in Mathematics of Data Science was also reviewed and approved.

The committee considered several proposals related to course modifications, including changes in prerequisites and the elimination of certain courses. These actions aim to streamline the curriculum and enhance academic coherence across programs.
As part of its faculty development initiatives, the committee organized a workshop in November 2024 titled "An Introduction to CurricUNET." The workshop was designed to familiarize faculty members with the university's curriculum management system and to improve efficiency in the proposal and review process.

In summary, the Program and Curriculum Committee's work during the 2024-2025 academic year emphasized the enhancement of academic quality, modernization of curricula, and alignment of degree programs with institutional objectives. The approved changes are expected to promote greater flexibility for students, encourage interdisciplinary learning, and ensure that the college's programs remain current and competitive within the global academic landscape.

Academic Quality Assurance Committee (AQA)

Coordinator: Prof. Youssef El Khatib

Members: Dr. Dalal Alshamsi, Dr. Ziad Moussa, Dr. Youngwook Kim, Prof. Salem Ben Said, and Dr. Iyad Seyd Darwish.

Prof. Youssef El Khatib

During the academic year 2024–2025, the Academic Quality Assurance Committee focused its efforts on enhancing the college's quality assurance framework and ensuring compliance with national and international accreditation standards. The committee's primary work involved managing the Renewal of Program Accreditations (RPA) under the Commission for Academic Accreditation (CAA) for all programs offered by the College of Science. In collaboration with the Office of Institutional Effectiveness (OIE), it oversaw the preparation and submission of the required data and documentation to the CAA.

The committee also contributed to the preparation of materials for other professional accreditations, particularly ABET, supporting programs in Mathematical Sciences, Physics, and Geosciences through analyses of learning outcomes and evidence of continuous improvement. These efforts reinforced the alignment of academic programs with global quality benchmarks. In addition, the committee provided guidance and assistance to faculty members on internal review procedures, course assessment, and data analysis related to program improvement plans.

In parallel with accreditation activities, the committee coordinated the assessment and analysis of learning outcomes at both course and program levels. It ensured that assessment reports were completed on schedule and that departments implemented appropriate improvement actions. These systematic processes strengthened the college's commitment to continuous enhancement of teaching and learning quality.

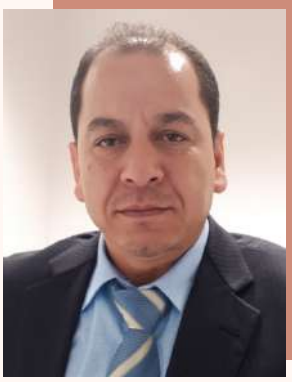
As part of its initiatives to promote awareness and engagement, the committee organized support sessions in collaboration with the OIE that highlighted CAA accreditation procedures, assessment practices, and the monitoring of key performance indicators (KPIs).

The Academic Quality Assurance Committee's work during the 2024–2025 academic year reflected the college's continuing dedication to academic integrity, institutional accountability, and performance improvement. Through its coordinated oversight of accreditation, assessment, and quality enhancement processes, the committee ensured that the College of Science remains aligned with both national and international standards and responsive to the evolving landscape of higher education.

Occupational Health and Safety Committee (OHSC)

Coordinator: Dr. Abdelouahid Samadi

Members: Ms. Halima Al Meqbali, Mr. Safwan Paramban, Dr. Houssam Abdul Rahman, Mr. Abdul Razack Hajamohideen, Ahamed Imthikab Ahamed Ilyas, Mariam AlShamsi



Dr. Abdelouahid Samadi

During the 2024-2025 academic year, the Occupational Health and Safety Committee (OHSC) has worked closely with instructors, lab technicians, and faculty members to ensure safe practices in both teaching and research laboratories.

The committee renewed the First Aid Kits in all laboratories within the College of Science. A total of 50 kits were purchased and distributed across both teaching and research laboratories. In addition, the committee assisted college members in preparing the Risk Assessments for their teaching experiments and research activities. The committee also received several internal and external inspections. On June 2, 2025, representatives from Al Ain Civil Defense (AACD) inspected the UAEU laboratories. Later in June 2025, Bureau Veritas Certification Holding SAS conducted an inspection of UAEU laboratories, which ultimately led to the university receiving the ISO Certificate (issued on August 13, 2025).

In collaboration with FMDHS the Committee organized 8 online sessions of the Student OHS Induction Training on February 10th, 13th, 18th, and 26th and on April 4, 9, 14, and 22, 2025. The training sessions were conducted by Mrs. Jasmine Abdul Rasheed. Total 726 students attended the workshops/training sessions during 2024-2025.

The committee is organizing a series of workshops and training for undergraduate students as well as for members of the College of Science. These workshops aim to promote a strong culture of safety in both research and teaching laboratories and to enhance awareness of safe practices in chemistry and biological laboratory work. The following is a list of the planned workshops and training sessions:

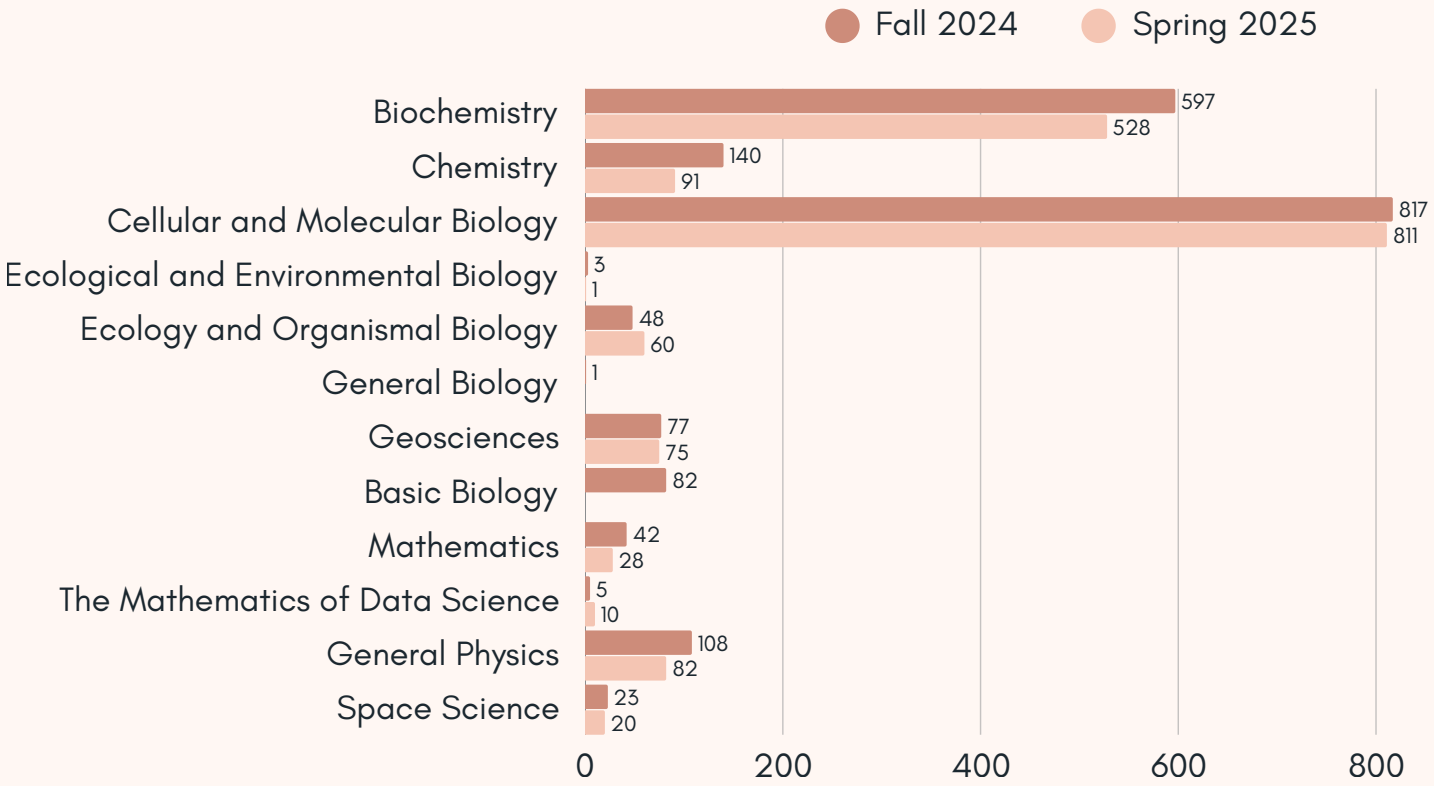
1. Student OHS Training: Two stages will be covered for the student OHS training
   - Stage 1 - The Blackboard OHS induction training course for undergraduate students.
   - Stage 2 - The Blackboard OHS Task Specific Training Course for undergraduate students.
2. Employee OHS Training - In-person or online using Microsoft Teams
   - Biosafety workshop will be held in two sessions, on November 4th and 7th, 2025 in IT Building. The number of registered attendees for both sessions is 240.
   - Compressed Gas Cylinder Safe Handling & Storage scheduled for November 14th, 2025.
   - Chemical Safety. In preparation.

Overall, the Committee on Occupational Health and Safety made significant progress during the 2024-2025 academic year in promoting a safe working and learning environment across the College of Science. Through initiatives such as renewing first aid kits, organizing induction sessions, and planning specialized workshops, the committee strengthened safety awareness and reinforced a culture of compliance and responsibility toward occupational health and safety.

STUDENT READINESS JOURNEY

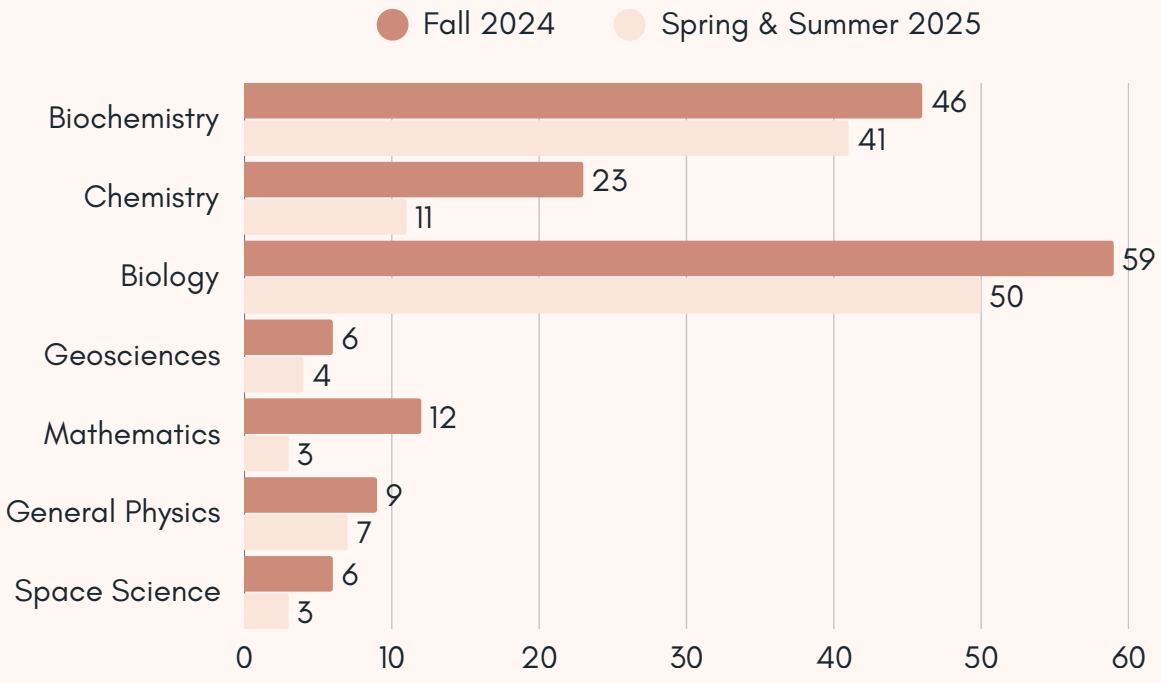
ENROLMENT IN UNDERGRADUATE PROGRAMS

Over the academic year 2024/2025, there were a total of 1943 undergraduate students in Fall 2024 and 1706 in Spring 2025.



GRADUATION STATISTICS

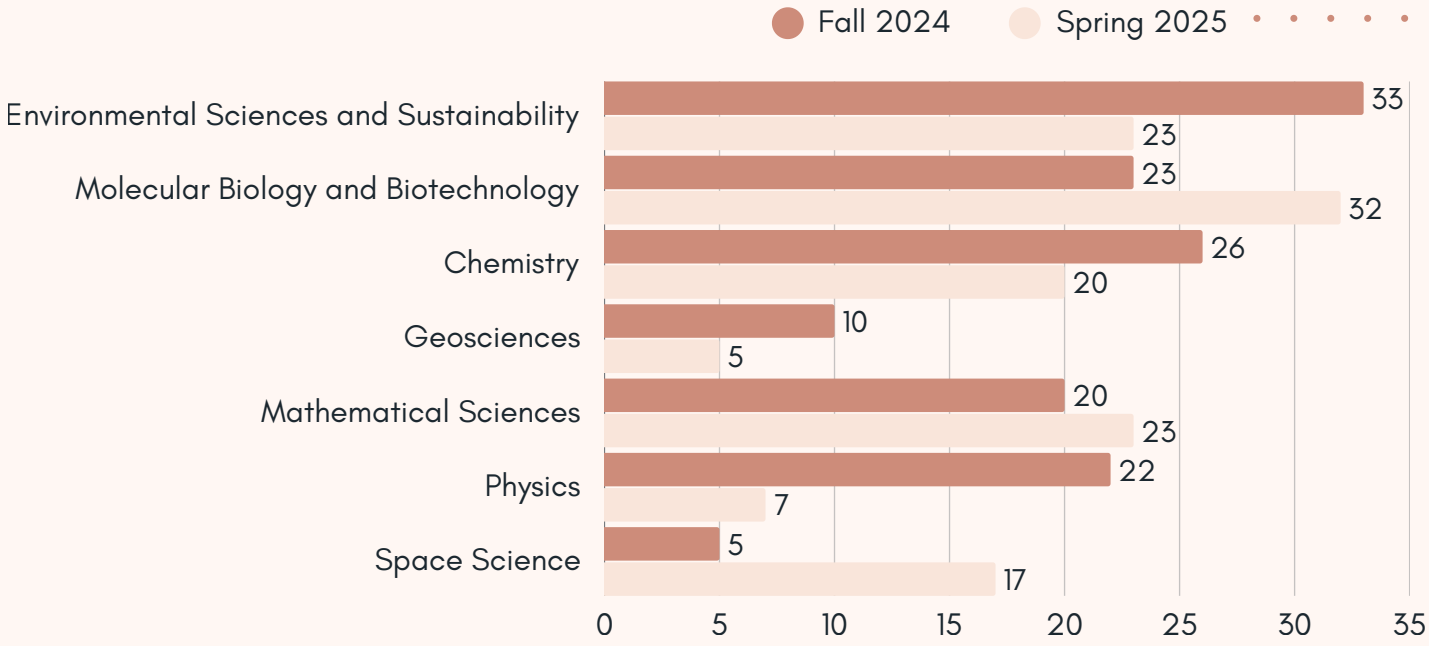
College of Science proudly congratulates the 285 students who graduated with a BSc in AY 2024-2025 (161 students in Fall 2024 and 119 in Spring and Summer 2025).



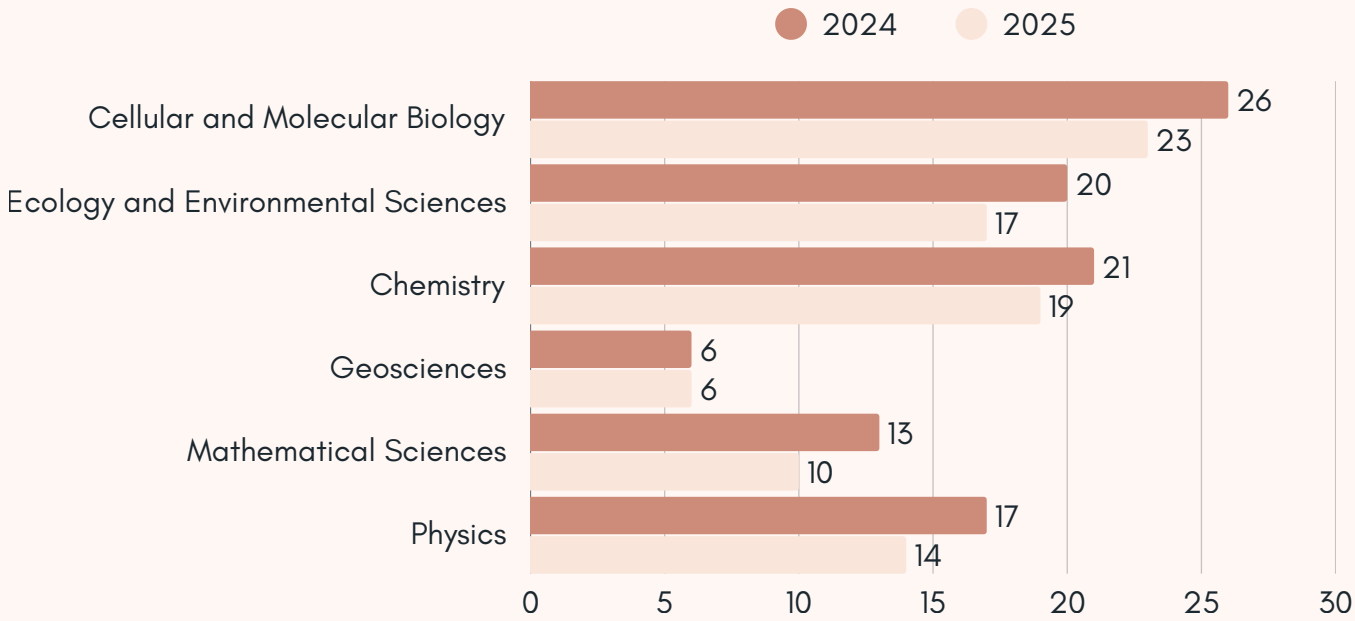
ENROLMENT IN GRADUATE PROGRAMS

College of Science also offers a wide range of graduate programs. The total number of students in the MSc programs was 139 in Fall 2024 and 139 in Spring 2025. In addition to the students in the MSc programs, there were 86 PhD students pursuing their PhD degrees in Fall 2023 and 82 in Spring 2024.

MSc enrolment by program in Fall 2024 and Spring 2025



PhD enrolment by program in 2024 and 2025



Furthermore, **42 MSc** and **15 PhD** students graduated during the academic year 2024-2025.

Orientation Program

The College is keen to prepare students to be distinguished in their field of specialization and to become productive leaders in society. Therefore, the College provides its students a diverse range of orientation programs.
During the first and second semesters of this academic year, the advising unit has performed several different programs that include multiple orientation sessions and workshops to cover:

- The University/College rules and policies related to class registration, attendance, academic warning ...etc.
- COS curricula and how to choose a major, concentration and minor.
- Ideal plan for the successful completion of the graduation requirements.

An online open discussion was organized for new students at the beginning of the year. Additionally, weak academic students or students who need assistance with specific subjects were directed to the help centers at the College level and University level.

Student Experience

Life at the College of Science is not limited to classrooms and lectures. Rather, there are many opportunities to develop the student's scientific, social and personal skills. Students have the opportunity to participate in many beneficial programs such as:

- Outstanding students' council
- Honor Students program
- Research projects/activities
- University career program
- Department clubs
- Local and international competitions
- Local and international conferences
- Volunteer work at university and college
- Workshops to develop students' skills

Internship Program

The internship program is a mandatory requirement of all COS majors. It is an excellent opportunity for COS students to get involved in the labor market and acquire some experience from the real work environment. Students undergo hands-on training at a chosen governmental or private sector institution for a period of 8 weeks. Based on their major, students may opt to be placed at municipalities, forensic laboratories, hospitals, environmental agencies, oil companies, food control labs, banks, and research centers.

In AY 2024-2025, 259 students successfully completed the internship program (146 students in Fall 2024 and 113 students in Spring 2025). The new programs, advising follow up, and internship flexible selections may play a role in the increase of the internship students.

The COS Internship Office, in coordination with the University Career Readiness Unit, organized a series of workshops under a program called "Jahez". This was delivered to the internship students before they started joining their workplaces. Jahez program aims to prepare students with the expectations of the work environment and career requirements. It is offered twice a year, with multiple 4-5 workshops each semester.

As the entire university activities have returned to normal after the COVID-19 pandemic, the internship program is now completely face-to-face. However, the workshops of Jahez readiness program were split between online and onsite attendance due to the timing conflict of some workshops with student's lab sessions.

Each semester the internship office organizes the Poster Presentation Day where all internship students present practices and skills they acquired and evaluate and discuss their internship experience with the dean, faculty members, and students.

International Summer Training Program – Nanyang Technological University (NTU), Singapore (19 June - 04 July 2025)

Nine outstanding students from the College of Science took part in a prestigious two-week summer internship at Nanyang Technological University (NTU), Singapore. The program offered an intensive, hands-on curriculum in entrepreneurship, where participants explored innovative business ideas, assessed their potential, and developed strategies for success.

They gained practical skills in idea generation, customer needs analysis, team building, and effective resource management.

Beyond academics, the students engaged with peers from around the world, exchanging perspectives and building cross-cultural understanding. This international environment enhanced their communication, presentation, and problem-solving abilities, while tours of Singapore provided valuable insight into the local business landscape. The program concluded with impactful project presentations and a practical exam, where the students' efforts were formally recognized. The training was expertly supervised by Ms. Fraya Al Mazrouei.

CERN Summer Student Program 2025

The Physics Department is proud to highlight the outstanding achievement of Ms. Noor Ahmad, who was selected by CERN (the European Organization for Nuclear Research) for the Summer Internship Program 2025. Out of more than 10,000 applicants worldwide, Ms. Noor was chosen to join the ATLAS Collaboration at CERN, one of the largest and most prestigious international research teams in particle physics. During her internship, Ms. Noor contributed to the search for associated top-Higgs production, focusing on the Higgs boson decay into two beauty quarks, a process of key importance in understanding the Higgs mechanism. Upon her return, Ms. Noor delivered an engaging presentation to fellow students and faculty, sharing her experiences at CERN and inspiring others to pursue international research opportunities in high-energy physics.

Honor Students Program

During the Academic Year 2024-2025, the College of Science at UAEU organized a series of events and activities to recognize excellence, support professional growth, and strengthen engagement with its top-performing students. These initiatives reflected the College's ongoing commitment to fostering a culture of achievement, innovation, and student success.

On May 2, 2025, the College held an informal meeting with third- and fourth-year Honors students, bringing together both female and male achievers. This gathering brought together high-achieving male and female students to discuss their academic experiences and future aspirations, whether in postgraduate studies or the professional world. The session, attended by the Dean of the College, and Assistant Dean for Student Affairs, provided a valuable forum to gather student feedback on enhancing departmental support, yielding productive and insightful outcomes.

On April 15, 2025, the College of Science Honors Students Committee organized a distinguished Honoring Ceremony in the IT Auditorium on the female campus. This event celebrated students who earned placement on the Dean's List and Honors List for Fall 2024. The program began with the National Anthem, followed by a welcoming address from the Dean, who emphasized the importance of academic excellence and its impact on students' futures. A keynote presentation, titled "Artificial Intelligence and the Future of Being Brilliant," was delivered by Dr. A. Vogan from the Center for Excellence in Teaching and Learning at UAEU.

To further support students in their academic journey, the College held an interactive online workshop on February 18, 2025, led by Dr. Asma Al Menhali, Vice Dean of the College of Science. Titled "How to Prepare for Your Postgraduate Studies," this session was tailored specifically for senior students on the Dean's and Honors Lists. Dr. Asma shared expert advice on choosing suitable graduate programs, securing funding and scholarships, and balancing academic success with personal well-being. The workshop featured a Q&A session where students received personalized guidance, giving them useful tools to plan their academic futures.

Recognition of student achievements also took place on November 13, 2024, when the College of Science held its Recognition Ceremony for Spring 2024 accomplishments. The Dean awarded trophies and certificates to the top 25 students on the Dean's List, as well as to Honors students with the highest cumulative GPAs. The ceremony featured two insightful presentations: Prof. M. Masud (IT, UAEU) spoke on "How science has enabled the rise of AI, and in turn, how AI is advancing science?", while Dr. A. Baabdulla (COS, UAEU) shared his inspiring journey in "From aspiration to achievement: My Ph.D. journey." This event not only celebrated academic distinction but also offered encouragement and motivation for future pursuits.

The academic year's activities began with a workshop on October 30, 2024, organized by the College of Science Honors Students Committee. Dr. Alavikunhu Panthakkan, from the University of Dubai and Mohammed Bin Rashid Space Center Lab, presented "Federated Learning in Science Applications: Revolutionizing Data-Driven Discovery." His talk highlighted the power of federated learning as a privacy-preserving machine learning approach with applications across biology, medicine, mathematics, and chemistry. The workshop showcased how emerging technologies can accelerate collaboration and innovation in the sciences.

In conclusion, the College of Science has demonstrated its dedication to nurturing student excellence through a balanced approach of recognition, professional development, and intellectual engagement. By honoring achievements, providing practical guidance, and introducing students to cutting-edge scientific advancements, the College continues to prepare its high-achieving students for successful academic and professional futures.

Student Exchange Program

The following students are participating in a Student Exchange Program with the University of Wisconsin-Madison, with funding from the Ministry of Education.

Semester	Name/Department
Fall 2024	Raheel Ahmed Matar Alzari Alzaabi (Biology)
	Mouza Hamad Mohamed Alghafri Alzaabi (Chemistry)
	Mohammad Bashir Ahmad Abulhassan (Biology)
	Ghaya Rashed Khalfan Saeed Albedawi (Chemistry)
	Anfal Khalfan Obaid Salem Alabdouli (Biology)
Spring 2025	Mohammad Bashir Ahmad Abulhassan (Biology)

Graduate Student Publications

In 2024, our MSc students published 22 papers in international journals, while PhD students published 75 papers (For more information, see Appendix 1).

MSc and PhD Thesis Defenses

For the year 2024-2025, 41 MSc theses and 15 PhD dissertation defenses were successfully completed. See Appendix 2 for detailed information.

Sustainability Club

During the academic year 2024-2025, the Sustainability Club continued its mission to promote environmental awareness and sustainable living within the university community. The club participated in the annual Clubs Fair, where members showcased previous achievements, highlighted recycling and creative reuse projects, and encouraged new students to join the club's initiatives. Additionally, during Science Week, the club engaged students from various age groups through interactive sessions aimed at increasing awareness of sustainability concepts, including renewable energy, waste reduction, and environmental protection. Throughout the year, the club also emphasized creativity by promoting the recycling and repurposing of materials, demonstrating how innovation and environmental responsibility can work together. Moving forward, the Sustainability Club remains committed to expanding its outreach and fostering a stronger culture of sustainability on campus.

WORLD-CLASS PROGRAMS

College of Science Programs

The academic departments within the College of Science offer a range of programs at both the undergraduate and graduate levels. Two new programs (BSc in Mathematics of Data Science, BS-MS in Chemistry) has been launched in the academic year 2024-2025. Starting in Fall 2025, two newly approved programs will be launched. In addition, a proposal for a new undergraduate program (BSc Space Science) currently is under approval process.

Biology

BSc (Cellular and Molecular Biology, Ecological and Environmental Biology)
MSc (Cellular and Molecular Biology)
MSc (Environmental Sciences & Sustainability)
PhD (Cellular & Molecular Biology)
PhD (Ecology and Environmental Sciences)

Chemistry

BSc (Chemistry)
BSc (Biochemistry)
BS-MS (Chemistry)
MSc (Chemistry)
MSc (Forensic Sciences)
PhD (Chemistry)

Physics

BSc (Physics, track in Space Science)
BS-MS (Physics)
MSc (Physics)
MSc (Space Science)
PhD (Physics)

Geosciences

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

Mathematical Sciences

BSc (Mathematics)
BS-MS (Mathematics)
BSc (Mathematics of Data Science)
MSc (Mathematics)
PhD (Mathematics)

List of Minor Programs offered by the College of Science

- Minor in Chemistry
- Minor in Mathematics
- Minor in Physics
- Minor in Geosciences
- Minor in Ecological and Environmental Biology

Dual Award PhD Programs

Every PhD program at the College of Science is available in a Dual Award format in partnership with McGill University, Canada, and Katholieke Universiteit (KU) Leuven, Belgium.

New Programs

MSc in Forensic Science. Starting in Fall 2025, the College of Science will launch a new interdisciplinary graduate program – the Master of Science in Forensic Science. This program encompasses a broad range of interconnected topics, including the scientific collection, analysis, and presentation of crime-related evidence, as well as the legal and ethical considerations associated with criminal cases. Its primary aim is to equip students with a solid foundation for professional practice and research in the field. The curriculum combines classroom instruction, extensive hands-on laboratory training with state-of-the-art techniques and equipment, and independent thesis research. To graduate, students must complete a minimum of 30 credit hours (CH): 2 CH of core college courses, 13 CH of forensic science core courses, 6 CH of electives, and 9 CH of thesis work.

BS-MS program in Geosciences. Starting in Fall 2025, a new BS-MS program in Geosciences will be launched. This program offers a promising opportunity for Geosciences students to advance in their careers by participating in graduate courses and conducting research during their final year of undergraduate studies within the Department of Geosciences.

Program Revision

The seven undergraduate Bachelor programs – Biology, Biochemistry, Chemistry, Geosciences, Mathematics, Mathematics of Data Science, and Physics – underwent a comprehensive revision in Fall 2024, which reduced the General Education requirements from 33 to 21 credit hours. The 12 credit hours that were reallocated have been distributed across other components of the respective programs. These revisions have been approved and will be implemented starting in Fall 2025.

Under Review

BSc in Space Science. A proposal for a BSc program in Space Science has been submitted by the Department of Physics and is currently under review.

Program Accreditation Status

The College of Science takes numerous steps to offer its students world-class programs. All current programs are either accredited locally or internationally. The table below provides a summary of the international accreditation status of science undergraduate programs.

Program	Accreditation Body	Duration	Renewal
BSc in Biology	Royal Society of Biology	2019-2029	2029
BSc in Chemistry	ROYAL SOCIETY OF CHEMISTRY	2022-2027	2027
	Canadian Society for Chemistry | For Our Future Société canadienne de chimie | Pour notre avenir	2017-2025	2025
BSc in Biochemistry	Canadian Society for Chemistry | For Our Future Société canadienne de chimie | Pour notre avenir	2017-2025	2025
BSc in Geosciences	ABET Applied and Natural Science Accreditation Commission	2022-2026	2025
BSc in Mathematics	ABET Applied and Natural Science Accreditation Commission	2022-2026	2025
BSc in Physics	ABET Applied and Natural Science Accreditation Commission	2020-2026	2025

Subject Rankings

All science courses were ranked as follows according to the Times Higher Education (THE) and QS ranking in 2024:

Subjects	THE	QS
Biological Sciences	201-250	351-400
Chemistry	201-250	301-350
Environmental Sciences	251-300	251-300
Mathematics	251-30	201-250
Physics	251-300	401-450

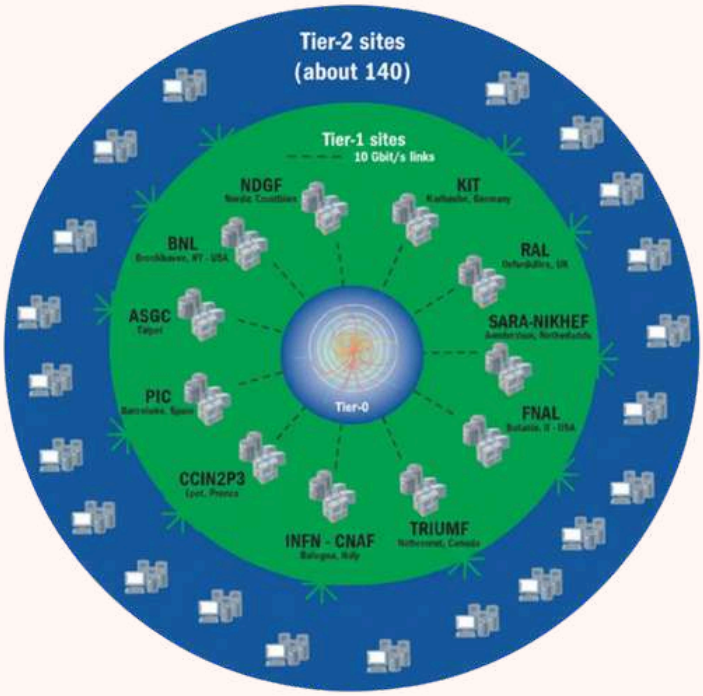
RESEARCH PRODUCTIVITY AND PARTNERSHIPS

Research Highlights

UAEU Joins CERN's Worldwide LHC Computing Grid

United Arab Emirates University (UAEU) has achieved a historic milestone by becoming the first institution in the Gulf region to join CERN's Worldwide LHC Computing Grid (WLCG). This was made possible through the deployment of a Tier-2 storage site—a 1-petabyte dCache system dedicated to the ATLAS experiment at CERN's Large Hadron Collider (LHC).

CERN's WLCG is a global infrastructure of 1.4 million CPU cores and 1.5 exabytes of storage across 170 sites in 42 countries, with the CERN Data Centre at its core. This massive network supports the analysis of particle collision data from the LHC, the world's most powerful scientific instrument.



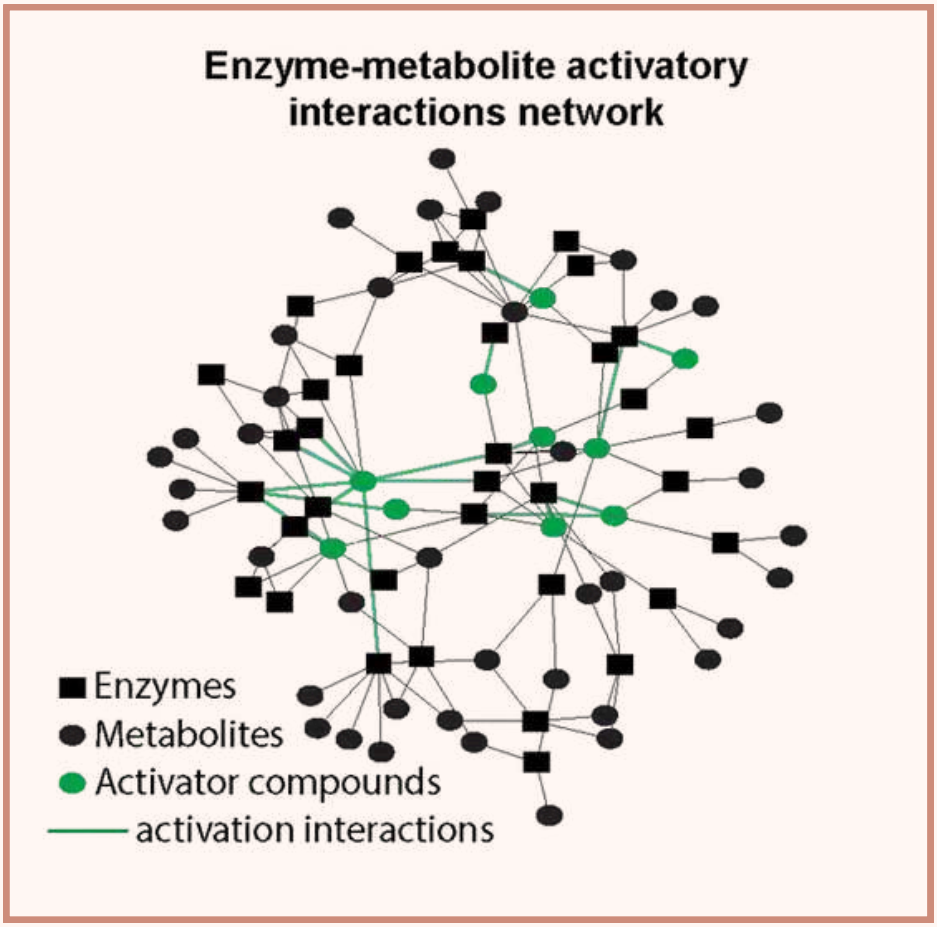
For UAEU, this breakthrough opens new horizons in data-intensive research and high-performance computing, benefiting cross-disciplinary projects in physics, mathematics, chemistry, biology, and geosciences. Within just the first month of operation, the UAEU Tier-2 site received nearly 200 TB of LHC data, reflecting its critical role in global research collaboration.

Dr. Mohamed Belfkir, Assistant Professor in the Department of Physics, emphasized the significance of this achievement: "This first-of-its-kind infrastructure in the Gulf significantly enhances research capabilities locally and globally by providing robust computing and storage resources."

This initiative underscores UAEU's commitment to research excellence and international engagement, strengthening its position as a leading scientific institution in the region and beyond.

UAEU Scientists Reveal How Cells Positively Regulate Metabolism Via Pathway Crosstalk

The Department of Biology (College of Science, UAEU) reported a landmark study led by Dr. Mohammad Tauqeer Alam in collaboration with Prof. Markus Ralser (Charité – Universitätsmedizin Berlin) and Dr. Richard Notebaart (Wageningen University & Research), with Master's student Sultana Mohammed Al Zubaidi and PhD student Muhammad Ibtisam Nasar as first co-authors. Published in Molecular Systems Biology, the work integrated the yeast metabolic network with enzyme data from multiple species to construct a comprehensive map of enzyme metabolite activator interactions. The study shows that positive, cross-pathway crosstalk is widespread; early steps in many pathways are preferentially and positively regulated to prime downstream reactions; and highly activated enzymes are often embedded in secondary pathways that switch on under specific environmental conditions. Collectively, these findings reframe cellular metabolic control around cooperation as well as inhibition and open new avenues for metabolic engineering, biotechnology, and disease biology.

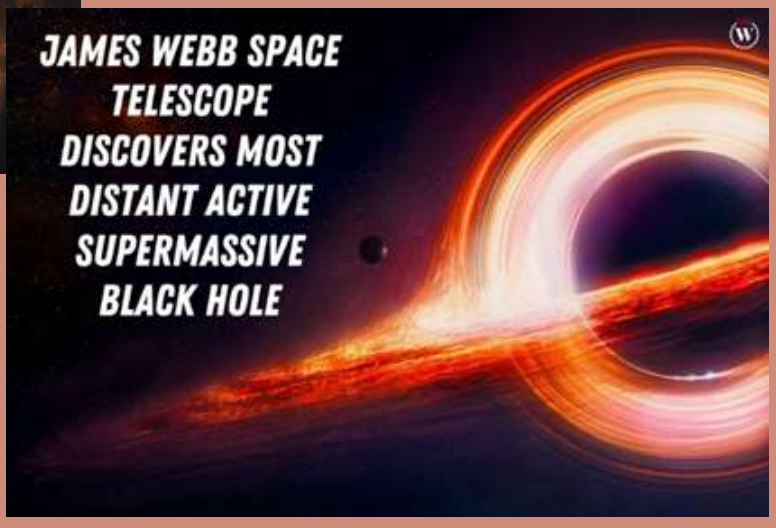


Discovery of Early Supermassive Black Holes

The College of Science is proud to recognize the outstanding research achievements of Dr. Muhammad Abdul Latif and his team from the Department of Physics, whose groundbreaking work has been published in the prestigious Astrophysical Journal Letters (Top 1-5%, Impact Factor = 11.7). This research has also been featured in several leading international space news outlets, marking a significant milestone for the College.

Using data from the James Webb Space Telescope (JWST), the team uncovered evidence of a surprisingly large population of early black holes with masses comparable to or even exceeding that of the Milky Way's central black hole approximately four million times the mass of the Sun. These findings challenge existing theories of black hole formation and suggest that such massive entities may have originated through a direct collapse process, in which dense gas clouds collapsed directly into black holes without first forming stars.

The research proposes that supermassive black holes could have formed as early as 200 million years after the Big Bang, reshaping our understanding of early cosmic evolution. Furthermore, Dr. Latif and his collaborators have derived the expected observational signatures of these primordial black holes, emphasizing the potential of upcoming missions like the Roman Space Telescope and Euclid to identify many more. The synergy between JWST, Roman, and Euclid will provide a more comprehensive view of the universe's earliest epochs, advancing one of the most fundamental questions in astrophysics and cosmology – how black holes form and grow.



Mosquito Resistance to Insecticides in the UAE

A groundbreaking study conducted by researchers from UAE University's Department of Biology, in collaboration with the Abu Dhabi Public Health Centre, has revealed that mosquito populations in the Emirate of Abu Dhabi are developing resistance to a key insecticide, deltamethrin. The research was published in Nature Scientific Reports and led by Professor Mohammad Al Deeb, with contributions from postgraduate student Amgd Sayed Ali. The study focused on the Culex quinquefasciatus species (southern house mosquito), which is not currently a disease vector in the UAE but is known elsewhere to spread West Nile fever. DNA analysis of 174 adult mosquitoes reared from egg clusters collected across Abu Dhabi showed that 18.4% carried two copies of a genetic mutation conferring resistance to deltamethrin. Resistance was particularly prevalent in coastal regions, with more than a quarter of the mosquitoes exhibiting mutation.

According to Prof. Al Deeb, the long-term use of insecticides has exerted evolutionary pressure, allowing resistant alleles to spread among mosquito populations. This poses a potential challenge for public health, as resistance reduces the effectiveness of conventional control measures.

The study emphasizes the importance of long-term monitoring programs and integrated pest management (IPM) strategies that combine chemical, biological, and environmental controls, such as the use of natural mosquito predators, habitat modification, and improved sanitation. Such an approach is vital to prevent outbreaks and maintain effective vector control.

Furthermore, the research highlights the need for continued vigilance as climate change alters mosquito distribution and behavior, potentially introducing new vector-borne diseases to the region. Prof. Al Deeb's team aims to expand the research to include other mosquito species and explore alternative control strategies, contributing to the UAE's preparedness against emerging public health threats.

After the Storm: Assessing Flood Impact

In response to the record-breaking flash floods that struck Al Ain, UAE in April 2024 bringing an unprecedented 250 mm of rainfall within hours, a pioneering study was launched by Professor Hakim Saibi from the Department of Geoscience, United Arab Emirates University. The research aimed to understand the causes, impacts, and long-term implications of flooding in arid and semi-arid regions.

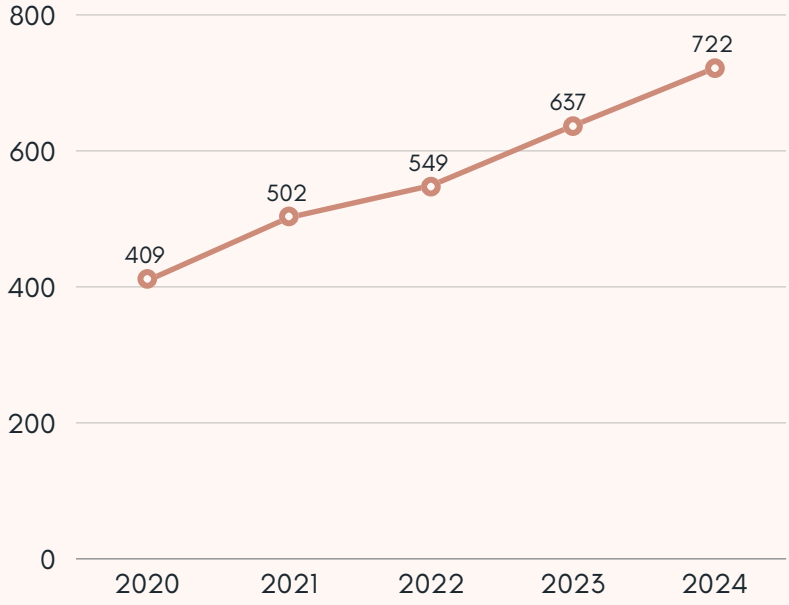
Professor Saibi's team conducted a comprehensive geospatial assessment of the Al Ain flood, combining Sentinel-2 satellite data, meteorological data from 16 National Centre of Meteorology (NCM) stations, and topographic analysis to map the city's vulnerability. A key innovation of the study was the application of the Index of Turbid Waters (ITW), a spectral index developed by Professor Saibi's team that distinguishes between floodwater and permanent water bodies.

The findings revealed a strong correlation between flood extent and geomorphological vulnerabilities, offering policymakers critical insights into flood risk management and urban resilience. The ITW method demonstrated high accuracy and reliability, marking a significant advancement in flood mapping for arid environments.

Beyond national significance, the study has global relevance. Collaborative work is underway with researchers in Italy, Spain, and northeastern Algeria, extending the application of ITW to other regions prone to flash flooding. The team aims to further enhance the model using higher-resolution hyperspectral satellite data, paving the way for improved disaster preparedness and sustainable water management strategies worldwide.

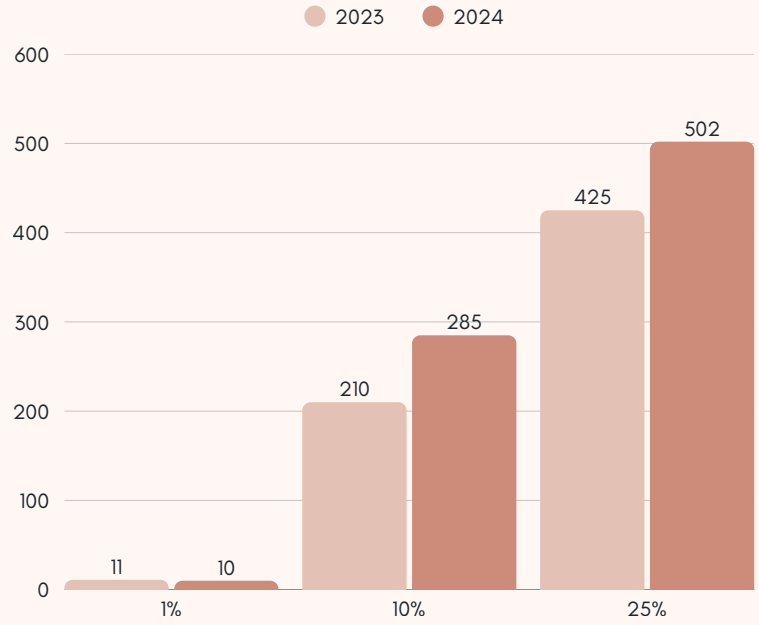
Research Publications

The College of Science leads all UAEU colleges in terms of overall number of publications in Scopus-indexed journals, with 637 in 2023 and 722 in 2024. The College is proud of its researchers' hard work and dedication to attaining such an distinguished achievement.



Total COS publications between 2020-2024.

COS remains among the leading UAEU colleges in terms of articles published in top journals (1%, 10%, and 25%) in 2023 and 2024, where around 70% of its publications are in Q1 journals.



COS publications based on journal rankings in 2023-2024.

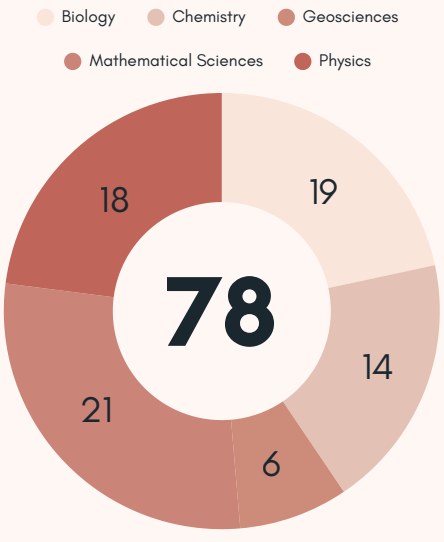
New Research Grants

COS Faculty members have been quite successful in being awarded several internal research grants. In terms of internal grants, this includes 11 UPAR, 4 Strategic Program, 4 AUA, one SDG, 9 start-ups, 3 District 4.0, one KU-UAEU and 34 SURE PLUS grants (see Appendix 3).

Research grants were awarded to COS faculty members this academic year.

Grant Type	Number	Amount
Start-up Grant	2	637,200
University Program for Advanced Research (UPAR)	11	4,839,112
Strategic Research Program	7	3,377,000
Asian Universities Alliance (AUA)	9	4,201,300
Sustainable Development Goals (SDG)	8	270,000
UAEU-UOS	1	320,202
SURE PLUS	16	598,000
UAEU- Nanyang Technological University (NTU)	2	417,500
TOTAL	**56**	**14,660,314**

Faculty members participation in International Conferences 2024/2025



Granted Patents

The following patents, including five US and three Australian, were granted to the College of Science faculty members in 2024-2025.

Title	Country	Inventor(s)
Forming acousto-opticleneses using spherical acoustic waves in fluids	USA	Usama Al Khawaja
Coking resistant catalyst for partial oxidation of methane to synthesis gas	USA	Abbas Khaleel
Combination therapy for cancer	Australia	Amr A Amin
Suppression and inhibition of CDC25B with safranal-based formulations	Australia	Amr A Amin
Safranal-sorafenib combination therapy for liver cancer	Australia	Amr A Amin
Electroanalytical sensor for meloxicam detection	UAE	Iltaf Shah
Tailoring new covalent organic framework for highly efficient iodine capture	USA	Shaikha Alneyadi
Method of preparing a hybrid inorganic-organic MOF compound with high photoluminescence (PL) quantum yields (PLQY)	USA	Nail Ibrahim
Voltammetric Sensor for Oxytocin Detection	USA	Iltaf Shah

Signed MoUs

During the academic year 2024-2025, the College of Science was able to establish Memoranda of Understanding (MoUs) with the following institutions/agencies:

- Insilico Medicine, Abu Dhabi.
- University of Insubria, Italy.
- Mediso Medical Imaging Systems Ltd., Hungary.

Departmental Seminars

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 (9), Department of Chemistry (12), Department of Geosciences (11), Department of Mathematical Sciences (12) and the Department of Physics (8). For detailed information, see Appendix 4.

International Research Collaborations

College of Science has been actively involved in creating and expanding various international relationships in 2024/2025. Several research initiatives and other activities are now underway as part of these collaborations with:

- UAEU-Chinese Academy of Science Collaborative Research Project.
- UAEU-CERN.
- UAEU-University of Belgrade.
- UAEU-Nanyang Technological University, Singapore.

Collaboration With Chinese Academy of Sciences (CAS)

The collaboration project works are going well and here is some of the updates:
Project: Detection and determination of carbamate pesticides and related metabolites in camel milk products of UAE.

A method was developed, validated and used to detect carbamate pesticide residues in food samples (camel milk and date fruits) collected from the UAE using UHPLC-MSMS. An optimized liquid-liquid extraction and solid-phase extraction were used to extract carbamate pesticides from the highly complex milk and dates samples. The detection limit of all studied carbamates was down to 0.01 mg.kg-1. A total of 17 camel milk samples were studied, and no carbamate residues were found in one sample only. The remaining 16 samples contained at least one carbamate residue, but the detected concentration for all residues was below the Codexrecommended MRL (< 10 mg.kg-1) except ethiofencarb residue in three samples was at the borderline.

Prof. Mohammed Almeetani
Department of Chemistry

All date fruit samples contained at least one carbamate residue. While the majority of detected residues were below their MRLs, carbosulfan was found in 21 samples, propoxur in 2 samples, and carbofuran in 1 sample above their MRLs. The health risk of carbofuran, carbaryl, and propoxur was assessed for camel milk consumers by calculating hazard index (HI) values in pasteurized and raw camel milk and found less than one, therefore camel milk consumers are not at risk. The UAEU-CAS partnership resulted in the publication of the following articles:

1. Rana Morsi, Kilani Ghoudi, Basant Elabyad, Zaina Kadoura, Hind Zeidane, Bayan Al-Meetani, and Mohammed A. Meetani, "HPLC-MS/MS monitoring and health risk assessment of carbosulfan and its metabolites in date palm fruit (Phoenix dactylifera)", Sci Rep 14, 28047 (2024). https://doi.org/10.1038/s41598-024-79871-5.
2. Morsi, R., Ghoudi, K. & Meetani, M.A. Determination and health risk assessment of carbamate pesticide residues in date palm fruits (Phoenix dactylifera) using QuEChERS method and UHPLC-MS/MS. Sci Rep 14, 13064 (2024). https://doi.org/10.1038/s41598-024-63704-6.
3. Rana Morsi, Kilani Ghoudi, Mutamed M. Ayyash, Xiue Jiang, and Mohammed A. Meetani, "Detection of 11 carbamate pesticide residues in raw and pasteurized camel milk samples using UHPLC-MS/MS: Method development, method validation, and health risk assessment". Journal of Diary Science, 2024, 107(4), 1916-1927. doi: 10.3168/jds.2023-23512.
4. Shaima Askar, Muhammad Usman, Libin Johnson, Delish Thomas, Mohammed A. Meetani "Determination of Multi-Mycotoxins in Camel Milk Products of the UAE By LC-MS/MS. Journal of Dairy Science (under review), 2025.
5. Afnan Alanqar and Mohammed Meetani, " Development and Validation of a Cyclodextrin-Based Supramolecular HPLC-FLD Method for Determining Thiabendazole in Camel Milk from the UAE: A Comparative Study of Extraction Techniques", Journal of Dairy Science (under review), 2025.

Toward high efficiency and large-scale production of flexible perovskite solar cells

(UAEU-Shaanxi Normal University & Chinese Academy of Sciences Collaborative research Project)

Dr. Adel Najar
Department of Physics

The high cost and long energy payback time of silicon continue to constrain the global growth of solar energy. Metal-halide perovskites offer a promising alternative-abundant, solution-processable absorbers capable of delivering lower cost per watt. However, the commercialization of perovskite solar cells (PSCs) still faces significant challenges, primarily due to instability and performance fluctuations caused by material defects such as under-coordinated Pb^{2+} ions, halide vacancies, and grain-boundary traps, as well as issues within the functional layers and interfaces of PSCs.

Theoretical calculations suggest that copper (Cu) can serve as an effective dopant, potentially occupying interstitial sites in the perovskite structure, thereby reducing the energy barrier and enhancing carrier extraction. Subsequent experimental investigations confirm that adding CuI as an additive to MAPbI3-based perovskite cells improves optoelectronic properties and overall device performance. Optimizing the amount of Cu (0.01 M) has been found to significantly enhance crystalline quality and grain size, leading to improved light absorption and suppressed carrier recombination. Consequently, the power conversion efficiency (PCE) of Cu-doped PSCs increased from 16.3% to 18.2%. Furthermore, Cu-doped PSCs exhibit higher stabilized power output (SPO) compared to pristine cells. This study underscores the substantial benefits of Cu doping for advancing the development of highly efficient PSCs.

In other hand, an effective chelation strategy is reported to suppress harmful physical defects related to unterminated Cu, Zn, and Sn sites by modifying the surface of Cu2ZnSn(S,Se)4 (CZTSSe) films with sodium diethyldithiocarbamate (NaDDTC). The conjoint theoretical calculations and experimental results reveal that the NaDDTC molecules can be coordinate to surface metal sites of CZTSSe films via robust bidentate chelating interactions, effectively reducing surface undercoordinated defects and passivating the electron trap states. Consequently, the solar cell efficiency of the NaDDTC-treated device is increased to as high as 13.77% under 100 mW cm-2 illumination, with significant improvement in fill factor and open-circuit voltage. This surface chelation strategy provides strong surface termination and defect passivation for further development and application of kesterite-based photovoltaics.

Publications:

1. Towards High Performance: Solution-Processed Perovskite Solar Cells with Cu-Doped CH3NH3PbI3, Abdul Kareem Kalathil Soopy, Bhaskar Parida, S Assa Aravindh, Asma O. Al Ghaithi, Naser Qamhieh, Noureddine Amrane, Maamar Benkraouda, Shengzhong Liu, Adel Najar, Nanomaterials 14 (2), 172, 2024
2. Modifying surface termination by bidentate chelating strategy enables 13.77% efficient kesterite solar cells; Lei Cao, Lijing Wang, Zhengji Zhou, Tianxiang Zhou, Rui Li, Hao Zhang, Zhiteng Wang, Sixin Wu, Adel Najar, Qingwen Tian, Shengzhong Liu, Advanced Materials 36 (16), 2311918, 2024.

Memorandum of Understanding between United Arab Emirates University and Insilico Medicine

On June 10, 2025, the College of Science, United Arab Emirates University (UAEU) signed a landmark Memorandum of Understanding (MoU) with Insilico Medicine, establishing a strategic collaboration in AI-driven drug discovery of small molecule therapies, education, and student development. The partnership was led by Dr. Yasir Raouf (Assistant Professor of Chemistry) as part of initiatives within the UAEU Drug Discovery Unit, which also includes Dr. Abdelouahid Samadi.

Insilico Medicine (www.insilico.com) is a multinational biotechnology company (USD >$1B) with a regional HQ in Abu Dhabi. The company integrates artificial intelligence and experimental pharmacology through its Pharma. AI platform (PandaOmics™ for target discovery and Chemistry42™ for molecular design). Its pipeline of >30 programs span multiple diseases, including oncology, cardiometabolism, longevity, and immunology.

Its flagship ISM001-055 (rentosertib) program, for idiopathic pulmonary fibrosis, met its primary endpoints in a phase IIa trial (NCT05938920), as one of the first examples of an AI-designed molecule to be administered to humans. The UAEU-Insilico MoU, signed by Dr. Maamar Benkraouda, Dean of the College of Science, and Dr. Alex Aliper, President/Co-founder of Insilico Medicine, establishes collaboration across 5 key pillars:

- Research: Co-development and academic collaborations on AI-driven medicinal chemistry.
- Guest Lectures: Participation of Insilico scientists in UAEU courses and seminars, primarily within the increasingly popular CHEM442: Introduction to Medicinal Chemistry course.
- Educational Events: Organizing hackathons, training workshops, and innovation challenges to foster hands-on learning in computational drug design.
- Internship Program for UAEU Students: Annual summer placements at Insilico's Abu Dhabi headquarters, supervised locally by Dr. Raouf.
- Employment Opportunities: Considering qualified UAEU graduates for roles in bioinformatics, medicinal chemistry, and AI-based research.

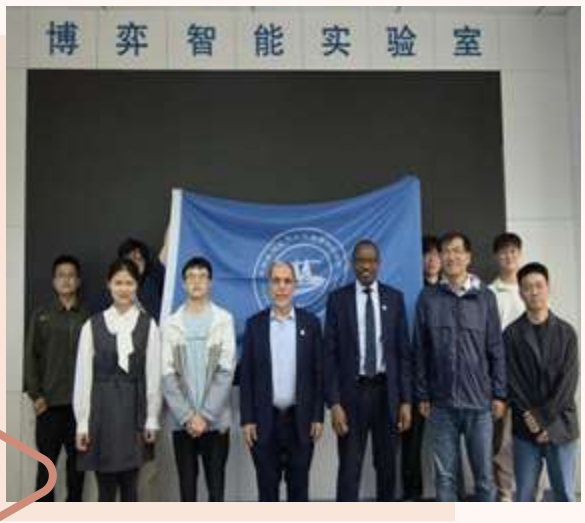
The MoU signing ceremony marked an important milestone in building a bridge between leading institutions from academia and industry. This strategic collaboration also highlights the leadership and forward thinking of UAEU in integrating academic science with global leaders in biotechnology, establishing a model that aims to generate useful impact across research, education, talent development, and employability. This MoU also reflects the growing nature of the UAE as a regional hub for AI-enabled innovation, and will play a critical role in positioning our college as a leading academic contributor to the bioeconomic strategy of the country as a whole.

College of Science Delegation Visit to China: Strengthening Research Collaboration and Academic Partnerships

A delegation from the College of Science, headed by the Dean visited five leading universities in China from May 17 to 24, 2025. The delegation comprised Professor Abbas Khaleel, Chairman of the Department of Chemistry; Professor Saleh Thaker Mahmoud, Chairman of the Department of Physics; Dr. Adama Diene, Chairman of the Department of Mathematics; and Professor Adel Najar from the Department of Physics. The visit was organized to strengthen academic partnerships, explore collaborative research opportunities, and promote student and faculty exchange between the United Arab Emirates University (UAEU) and key Chinese institutions.

The first part of the visit took place at Beihang University in Beijing, where the delegation participated in the 2nd China Emirates Scientific Symposium. During the event, Professor Saleh Thaker delivered a presentation on "Next-Generation Optoelectronic and Gas Sensors: Innovations in III-V Nitride-Based Devices," while Professors Abbas Khaleel and Adel Najar presented their research on catalytic materials and perovskite solar cells. The symposium provided an excellent platform for exchanging ideas with Chinese researchers and exploring shared scientific interests. The UAEU team also visited the Nanofabrication Laboratory at Beihang University, where they were introduced to advanced research facilities in semiconductor devices and nanoscale materials. Meetings with faculty members, including Professor Deying Luo and Dr. Bingjun Zhu, led to discussions on joint research proposals and the organization of future workshops focusing on catalysis and materials science.

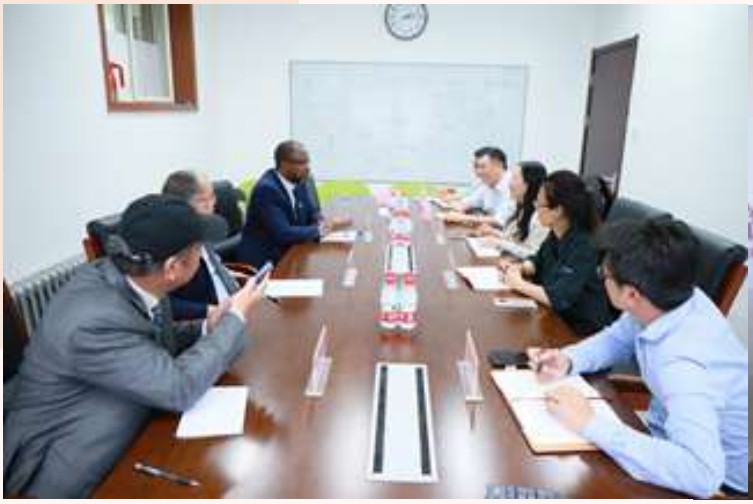
The delegation then traveled to Dalian, where they visited the Dalian Institute of Chemical Physics (DICP), a premier research institute under the Chinese Academy of Sciences. The UAEU team was hosted by Professor Shengzhong Frank Liu and Dr. Liu Huijuan, Director of Graduate Education. Presentations were exchanged on the research strengths of both institutions, highlighting areas of mutual interest such as catalysis, renewable energy, and chemical engineering. The visit concluded with a tour of DICP's state-of-the-art laboratories, which showcased the institute's leadership in energy conversion and storage technologies, including developments in fuel cells and vanadium redox flow batteries. Both sides expressed interest in establishing joint graduate programs, student exchanges, and collaborative research projects.



On May 22, 2025, the delegation visited the Dalian University of Technology (DUT), a member of China's Excellence League of top engineering universities. The team met with senior administrators and the Deans of the Schools of Chemistry and Mathematics. Discussions focused on fostering partnerships in areas such as quantum information science, materials engineering, and intelligent chemistry. The UAEU delegation toured DUT's laboratories, observing advanced research in robotics applied to chemistry, nanomaterials, and energy-related materials. The visit concluded with a shared commitment to pursue collaborative research, faculty mobility, and student exchange initiatives.

Later the same day, the delegation visited Dalian Minzu University, where they met with the Vice Dean and faculty members of the College of Physical and Material Engineering. The university's research strengths were presented in the fields of luminescent materials, photocatalytic environmental remediation, spintronic devices, plasma physics, and solution-processed optoelectronic materials. Discussions centered on the potential for joint projects in materials synthesis and device engineering, with particular emphasis on energy conversion and environmental sustainability. The visit provided valuable insight into Dalian Minzu University's growing capacity for interdisciplinary research and its alignment with the UAEU's strategic goals.

In addition, Dr. Adama Diene and Professor Maamar Benkraouda visited the Schools of Mathematics at Beihang University and Renmin University of China, focusing on collaborative opportunities in mathematical sciences. A separate report detailing these meetings was prepared by Dr. Adama Diene.



The visit of the College of Science delegation to China was both productive and promising. It fostered meaningful academic engagement and opened new avenues for research collaboration. The Chinese counterparts demonstrated strong interest in developing partnerships through joint supervision of graduate students, exchange programs, and co-hosted scientific conferences. Several joint research proposals were initiated in advanced materials, renewable energy, environmental science, artificial intelligence applications, and space science.

Overall, the visit laid a solid foundation for sustained cooperation between the College of Science at UAEU and prominent Chinese universities. The outcomes of this visit are expected to significantly enhance the college's international visibility and strengthen its position as a hub of high-quality research and innovation.

MERITS AND AWARDS

Faculty Achievements

Recognition of Excellence: Prof. Fathalla Rihan Receives the Khalifa Award for Education (2024–2025)

The College of Science proudly celebrates the remarkable achievement of Professor Fathalla Rihan from the Department of Mathematical Sciences, who has been honored with the prestigious Khalifa Award for Education in the category of Distinguished University Professor (18th Session, 2024–2025).

This national recognition highlights Prof. Rihan's exceptional contributions to teaching, research, and community engagement. Over the years, he has shown unwavering commitment to academic excellence, innovative pedagogy, and the advancement of mathematical sciences through impactful research and mentorship. His work has enriched both the department and the wider academic community, serving as an inspiring model for faculty and students alike.

The College of Science extends heartfelt congratulations to Prof. Rihan on this well-deserved honor. His dedication to fostering intellectual growth and leadership exemplifies the College's mission of excellence in education and research.

Chancellor's Innovation Award (10th Cycle)

The College of Science proudly congratulates Dr. Fathy Hassan from the Department of Chemistry on receiving the prestigious Chancellor's Innovation Award (10th Cycle) for the 2024/2025 academic year.

Dr. Fathy Hassan was honored in the category of Renewable Energy, recognizing his innovative contributions and impactful research in this critical area. This award highlights the College's continued commitment to advancing sustainable solutions through scientific excellence.

College Excellence Awards 2024-2025

Prof. Muhammed Syam
Department of Mathematical Sciences
For Excellence in Teaching

Prof. Hakim Saibi
Department of Geosciences
For Excellence in Service

Prof. Sabir Bin Muzaffar
Department of Biology
For Excellence in Scholarship - Experimental Science

Dr. Muhamed Abdul Latif
Department of Physics
For Excellence in Scholarship - Theoretical Science

Faculty Promotions

The College is pleased to announce the promotion of the following faculty members during the academic year:

- Dr. Adel Najar, Department of Physics, promoted to Full Professor.
- Dr. Youngwook Kim, Department of Biology, promoted to Associate Professor.

These promotions reflect the faculty members' sustained excellence in teaching, research, and service, as well as their continued contributions to the academic mission of the College.

Dr. Adel Najar
Department of Physics

Dr. Youngwook Kim
Department of Biology

Academic Achievements

The College extends its warmest congratulations to Dr. Marwa Alhashmi, Teaching Assistant in the Department of Biology, on the successful completion of her Doctor of Philosophy (PhD) degree at Purdue University, USA.
Her dissertation, titled "Adenoviral Vector-Based Next Generation Vaccines to Overcome Emergence of SARS-CoV-2," represents a significant contribution to the field of biomedical research, particularly in advancing innovative vaccine development strategies.

The College takes great pride in Dr. Alhashmi's remarkable academic achievement and extends best wishes for her continued success in future scholarly and professional endeavors.

The College extends its warmest congratulations to **Mr. Hamad Alblooshi**, Chemistry Graduate and Researcher, for his remarkable academic progression and research accomplishments.

Mr. Hamad completed his Bachelor's degree in Chemistry at College of Science, UAEU, where he specialized in organic synthesis and reticular chemistry, focusing on the development of metal-organic frameworks (MOFs) and covalent organic frameworks (COFs) for environmental and biomedical applications. His work reflects a strong foundation in advanced materials chemistry and a commitment to scientific innovation.

Mr. Hamad has been accepted to pursue his Doctor of Philosophy (PhD) at the University of California, Berkeley, where he will join the distinguished research group of Professor Omar M. Yaghi, the pioneering scientist of reticular chemistry and recipient of the 2025 Nobel Prize in Chemistry. This remarkable opportunity places Mr. Hamad within one of the world's most influential research environments in the field of advanced porous materials.

The College takes great pride in Mr. Hamad's achievements and extends its sincerest wishes for success as he embarks on his doctoral studies and future scientific endeavors.

Students Achievements

Dean's List Honor Students - Academic Year: 2024–2025

Continuing its tradition of academic excellence, the College recognized outstanding achievement through the Dean's and Honors Lists. In Fall 2024, 25 students earned Dean's List honors, alongside 166 who maintained their ranks. In Spring 2025, 26 students were named to the Dean's List, while 159 received Honors List recognition. The College congratulates all honorees and encourages their continued pursuit of academic excellence.

Fall 2024

TOP MALE STUDENTS

01 Mohammad Abdulghafoor Yousef Abulqasim Altamimi
Biology

02 Ahmed Abdullah Ahmed AlAqel
Biology

03 Abdallah Humaid Mohammed Al Jabri
Physics

04 Adam Eqhbal Balideh
Biology

05 Mohammed Abdulla Saeed Obaid Aldhaheri
Mathematics

06 Abdulrahman Abdulla Abdulaziz Alhaj Alteneiji
Biology

07 Khaled Saif Sawayeh Matar Alkhyeli
Physics

08 Abdulla Abdulqader Hasan Alshateri Alhashmi
Biology

09 Yousef Waleed Yousef Laywad Alnuaimi
Mathematics

10 Hazza Nasser Abdulla Khamis Aljuneibi
Geosciences

TOP FEMALE STUDENTS

01 Noorah Saif SalemShumail Alkaabi
Geosciences

02 Haneen Weesam Niyazi
Biology

03 Latifa Saeed Jaber Mohammed Alkuwaiti
Chemistry

04 Aiyah Ahmad Hasan
Biology

05 Jude Khaldoun Ababneh
Biochemistry

06 Mariam Yaqoub Yousuf Qasem Alhammadi
Biology

07 Mashael Ahmed Hasan Abdulla Almansoori
Biochemistry

08 Nouf Saeed Saleh Naser Alhemeiri
Biology

09 Jawaher Ali Salem Ali Alqaydi
Biology

10 Bayan Osama Hakim
Biology

11 Alaa Mohamed Abdullah Elameen
Biology

12 Ameera Badr Rashed Alkharraz Alteneiji
Biology

13 Fatima El Yadali
Biology

14 Sahar Farid Allaban
Biochemistry

15 Aishah Saeed Obaid Saif Khalfan Almeqbaali
Biology

Spring 2025

TOP MALE STUDENTS

01 Abdallah Humaid Mohammed Al Jabri
Physics

02 Mohammad Abulqasim Altamimi
Biology

03 Mohammed Issa Obaid MohammedAl-Naaimi
Biology

04 Helal Saif Abdurahman Saeed Alnasri
Geosciences

05 Abdellah Elmahi
Geosciences

06 Obaid Abdulla Hassan Saif Alkindi
Geosciences

07 Adam Eqhbal Balideh
Biology

08 Abdulla Abdulqader Hasan Alshateri Alhashmi
Biology

09 Sultan Khalfan Ali Khalifa Alqubaisi
Biology

10 Mohammad Ali Saleh Alkhamis Alnuaimi
Biology

11 Hazza Nasser Abdulla Khamis Aljuneibi
Geosciences

TOP FEMALE STUDENTS

01 Aysha Salem Sultan Salem Alnuaimi
Mathematics of Data Science

02 Hamdh Saeed Obaid Saif Almeqbaali
Biology

03 Fatima Saif Shelaiweeh Matar Almansoori
Biochemistry

04 Alaa Mohamed Abdullah Elameen
Biology

05 Haneen Weesam Niyazi
Biology

06 Jude Khaldoun Ababneh
Biochemistry

07 Aysha Sultan Mohammed Awad Alnuaimi
Biology

08 Bayan Osama Hakim
Biology

09 Shams Alnahar Amjad Rajoub
Biology

10 Fatima El Yadali
Biology

11 Mahra Rashed Saeed Ali Alshamsi
Mathematics of Data Science

12 Bakhita Rashed Hamad Mubarak Alameri
Geosciences

13 Salma Ahmed Mohammed Saif Alhassani
Biology

14 Aya Moualla Haidar
Chemistry

15 Sana Abdallah Salim
Chemistry

Sheikh Mohamed Bin Zayed Scholars Program Scholarship (SMSP)

Gamilah Wagih Abdulgabar Ibrahim (Department of Chemistry) and Sora Adeeb Jarrah (Department of Biology), have been selected for the Sheikh Mohamed Bin Zayed Scholars Program Scholarship (SMSP) for 2024/2025, which provides courses, lectures, leadership experiences, networking, and graduate school counseling to a select cohort of talented university students. The program provides a unique platform for students to build leadership and creativity abilities, showing pride in the UAE's ongoing support in cultivating future leaders who will carry the torch of innovation and excellence, contributing to the country's international reputation.

Gamilah Abdulgabar
Department of Chemistry

Sora Adeeb Jarrah
Department of Biology

Inter College Environmental Public Speaking Competition

Under the supervision of Dr. Shaikha Alneyadi, the Department of Chemistry students, Muneb Mukhtar, Hamad Alblooshi, Sultan A. Jama, and Ibrahim Al Mujaini, who placed second out of 22 international university teams in the 24th Cycle of the Inter College Environmental Public Speaking Competition, which took place on November 25, 2024.

Best Poster Award at NANO 2024

Under the supervision of Dr. Shaikha Alneyadi, a group of Chemistry students won the best poster award at NANO 2024, the 17th International Conference on Nanostructured Materials, held for the first time in the Middle East and North Africa (MENA) region at Khalifa University of Science and Technology, Abu Dhabi.

American Chemical Society (ACS) Student Chapter

The College of Science proudly announces that the American Chemical Society Student Chapter at UAE University led by the student Noor Anwar Albastaki, has been honored with the Outstanding Student Communities Award 2023-2024 by the American Chemical Society (ACS). This prestigious recognition reflects the collective efforts, dedication, and innovative initiatives carried out by the chapter to promote chemistry education and engagement within the community.

Geosciences Team Earns Top Honors at IBA 2025

The Collegeof Science is proud to announce the success of the IBA_UAEU Team in the Imperial BarrelAward (IBA) 2025,organized by the American Association of Petroleum Geologists (AAPG) and held at the National Energy Centre in Abu Dhabi. The team delivered an exceptional performance, securing a Top 3 position in the Middle East Region Semifinal, along with a $500 award from AAPG and official Certificates of Recognition. Their achievement was further honored by ADNOC, who presented the team with the prestigious ADNOC Trophy - a testament to their excellence in geoscience, innovation, and teamwork.

Success at the 5th Forum for Women in Research

The College of Science is proud to recognize Dr. Khadega Al-Maqdi and Dr. Lamia Ali, recipients of a AED 10,000 research grant at the 5th Women in Research Forum held on February 20, 2025, at the University of Sharjah. Selected from 890 proposals across 260 universities in 57 countries, their project, "Advanced Pollutant Degradation Using HRP Immobilized on MOF," presents innovative solutions for environmental sustainability. The research is supervised by Prof. Iltaf Shah (UAEU) and Prof. Salman Ashraf (Khalifa University).

Dr. Khadega Al-Maqdi
Department of Chemistry

Dr. Lamia Ali
Department of Chemistry

Colleges Trophy 2025: COS Shines!

The College of Science proudly celebrates a remarkable achievement in the Colleges Trophy 2025! Our female students claimed 1st place overall, winning the overall trophy in female competitions – a testament to their talent, determination, and team spirit. Meanwhile, our male students secured a strong 3rd place, showcasing excellent performance and sportsmanship throughout the event.

Congratulations to all participants for their outstanding efforts in representing the College with pride and excellence!

Mahra Al Ameri Wins at MOHAP Hackathon with AI-Powered Anti-Smoking Innovation

Mahra Al Ameri (Department of Biology), was a winning team member of the Health Hackers team at the Ministry of Health and Prevention's Hackathon. The team created an innovative AI-powered solution integrated with a smart device to help individuals quit smoking.

Mahra Al Ameri
Department of Biology

Congratulations to Ms. Noor Albastaki on her Outstanding Achievement!

We are proud to announce that Ms. Noor Albastaki, a student from the Department of Chemistry, and a member of the UAEU Chess Team secured first place in the Inter-University Chess Championship, held on 19th April 2025 at the RIT campus in Dubai.

We extend our heartfelt congratulations to Ms. Albastaki and the entire UAEU Chess Team for their remarkable performance and for representing the university with such distinction. Their victory is a testament to the strength and spirit of UAEU students.

Noor Albastaki
Department of Chemistry

Best Presenter Award – "AI in Education: Student Perspectives"

Ms. Fatima Almaazmi (Chemistry) and Ms. Taqeya Ahmed Yahya Alnuaimi (Biology) shared the Best Presenter Award at the mini symposium "AI in Education: Student Perspectives", held on 16 April 2025. The titles of their presentations were "AI Tools for Students with ADHD and Neurodivergence" and "AI as the Ultimate Teacher", respectively.

Fatima Almaazmi
Department of Chemistry

Taqeya Ahmed Yahya Alnuaimi
Department of Biology

UAEU Chemistry Students Shine in National Research Competition

Noura Khamis Ali Aldhaheri, Rauda Saif Salem Almazrouei, Wadima Khamis Saif Alhassani, and Mouza Mohamed Alghafri Alzaabi, undergraduate students from the Department of Chemistry, College of Science, UAE University, proudly represented their university at the 12th Undergraduate Research and Innovation Competition (URIC) on 29th May 2025, held under the patronage of H.E. Sheikh Nahyan bin Mubarak Al Nahyan. Their research project was presented to an international audience and received high praise for its scientific rigor and relevance. The studeal Ain citynts conducted their work under the supervision of Prof. Iltaf Shah. Their outstanding performance reflects Chemistry Department's strong commitment towards undergraduate research and innovation.

COLLEGE EVENTS

Conferences, Workshops and Meetings

The GULF 4 Conference (November 26- 28, 2024)

The GULF 4 conference was held on November 26-28, 2024, under the patronage of the Chancellor of the UAEU and Cultural Advisor to the President of the UAE (H.E. Zaki Anwar Nusseibeh), with the presence of the Vice Chancellor (H.E. Prof. Ahmed Al Raeesi) and the honor of having the Minister of State (H.E. Dr. Maitha Bint Salem Al Shamsi)

The event was jointly organized by the Biology Department at the College of Science, UAEU and the Canadian Society of Aquatic Ecosystem health and management, Ontario-Canada. This conference was sponsored by the United Arab Emirates University and the Environmental Agency of Abu Dhabi, as well as other private companies who are serving the scientific research at the Biology Department.

This edition of the GULF conference series focused on the management of the Gulf's ecosystem with a special emphasis on climate change, sustainable regional experiences, and global practices of ecosystems management. The conference was attended by a group of high- profile scientists and experts in climate change and ecosystems managements. They come from different Universities, Research Institutes from East Asia, Africa, Europe, North America and the GULF countries. About 75 presentations and posters were presented during the three-day conference parallel sessions, with the presence of up to 150 participants who represented 15 countries.

The First UAE-ITALY Bilateral Conference: Advanced Materials for the 21st Century, February 3-4, 2025

The first bilateral conference between the UAE (led by UAEU) and Italy (led by the University of Sassari) was held with plans to alternate hosting every two years. The conference theme was centered on advanced material applications in the21st century, and covered topics such as energy, environment, biomedicine, optics, electronics, magnetism, and 2D materials. The event featured 12 speakers from the UAE, 12 speakers from Italy, 2 keynote speakers, as well as participation from 40 students. In promoting exchange between UAE and Italian researchers, the conference provided an excellent platform for UAEU graduate students to disseminate their work.

The theme centered on advanced material applications in the 21st century, covering topics such as energy, environment, biomedicine, optics, electronics, magnetism, and 2D materials.

The event featured 24 speakers (12 from each country), 2 keynote speakers (one each day), 6 sessions across two days, 2 poster sessions, and participation from 40 students. An estimated 120 attendees were expected daily.

Workshop on New Trends in Algebra and its Applications

The Workshop on New Trends in Algebra and its Applications, held from November 5-8, 2024, was successfully conducted by the Department of Mathematical Sciences, College of Science. This important event brought together outstanding mathematicians from around the world, including experts from the United States, Russia, China, Norway, Slovenia, Romania, India, and Kazakhstan, as well as students from New York University Abu Dhabi. The workshop focused on cutting-edge advances in algebra and its various applications, providing a great forum for knowledge sharing. It also provided graduate students with a rare opportunity to interact with top experts, develop collaboration, and broaden their professional networks.

Workshop on "Knots and Spatial Graphs 2024"

The Workshop on Knots and Spatial Graphs 2024, the latest in a series of events previously held in Korea and Japan, was hosted by the Department of Mathematical Sciences, College of Science, from November 5-8, 2024. This significant gathering brought together leading topologists from several countries, including renowned experts from South Korea, Japan, China, in addition to participants from New York University Abu Dhabi and Sharjah University.

The workshop focused on foundational and cutting- edge questions in knot theory and low-dimensional topology, providing a platform to explore the latest advancements in research. Discussions spanned both fundamental problems and interdisciplinary applications, bridging the gap between theoretical insights and practical implications in other areas of science and mathematics.

Workshop on 'Artificial Intelligence in Science and Engineering'

The College of Science and the College of Information Technology organized a joint workshop on 'Artificial Intelligence in Science and Engineering' on October 18, 2024. Four Colleagues from the College of Science, Prof. Ranjith Vijayan (Department of Biology), Drs. Ayham Zaitouny and Zsolt Balogh (Department of Mathematics), and Dr. Mohamed Belfkir (Department of Physics) presented their work on the topic and participated in discussions along with colleagues and graduate students.

Workshop on Radioactivity in the Environment: Measurement Techniques and Applications

The Department of Geosciences, in collaboration with the National Water and Energy Center, hosted a one-day workshop on 17th February 2025, titled Radioactivity in the Environment: Measurement Techniques and Applications." The workshop focused on advancements in technology and methodologies for detecting and measuring radioactive isotopes in environmental settings. In addition to exploring cutting-edge measurement techniques, participants examined case studies illustrating the distribution of radioactivity across different environments and discussed the potential hazards associated with radioactive contamination. Designed for researchers, technicians, students, and professionals working with radioactive materials or environmental safety, the workshop fostered meaningful dialogue and knowledge exchange across disciplines.

A One-Day Forum on "Recent Trends in Applied Mathematics and Quantum Information"

On February 19, 2025, as part of UNESCO's International Year of Quantum Science and Technology, the Department of Mathematical Sciences, in partnership with the Physics Department, organized a one-day forum titled "Recent Trends in Applied Mathematics and Quantum Information." The event gathered students, faculty, and experts to explore new ideas in these fields. Three keynote speakers—Prof. Dumitru Baleanu, Prof. Farhan Saif, and Dr. Mohammad AlRefai—presented talks on fractional operators, qubit control via optomechanics, and the solvability of fractional differential equations. The forum fostered rich discussions and encouraged interdisciplinary collaboration between mathematics and quantum information science.

Honor Students Workshop

The Honor Students Committee of the College of Science organized a workshop on October 30, 2024. Dr. Alavikunhu Panthakkan from Dubai University presented "Federated Learning in Science Applications: Revolutionizing Data-Driven Discovery." Federated Learning (FL) is a novel method that allows for shared training of diverse machine learning models while protecting sensitive data. This workshop emphasized FL's ability to inspire innovation and foster collaboration in biology, medicine, mathematics, and chemistry.

Workshop on "AI in Science Education and Research

Artificial Intelligence (AI) is increasingly being utilized across various fields, including education and research. On 24 February 2025, the College of Science organized a mini workshop for faculty members to showcase their use of AI in science teaching and research. The event also provided a platform to discuss key issues and concerns related to deploying AI in education. Prof. Naser Qamhieh (Physics), Prof. Abdessamad Tridane (Mathematical Sciences), Prof. Muhammed Syam (Mathematical Sciences), Prof. Ranjit Vijayan (Biology), and Mr. Mohammad Qatrawi (Center for Excellence in Teaching and Learning, UAEU) shared their personal experiences with using AI in teaching, learning, and research. Each speaker shared personal insights and real-world examples of using AI to enhance both classroom learning and research productivity.

Engaging with Excellence: Honors Students Meet College Leadership

On May 2, 2025, the College of Science held an informal meeting with top Honors students in their third and fourth years. The meeting was attended by the Dean of the College of Science, Prof. Maamar Benkraouda; Dr. Yusra AlDhaheri, Assistant Dean for Student Affairs; and Prof. Salem Ben Said, Coordinator of the Honors Students Committee."

The session fostered open dialogue between students and college leadership, focusing on academic experiences, future goals, and available support. Students shared advice on navigating their academic paths, whether aiming for graduate studies or entering the workforce. The meeting highlighted the College's continued commitment in cultivating a student-focused academic environment.

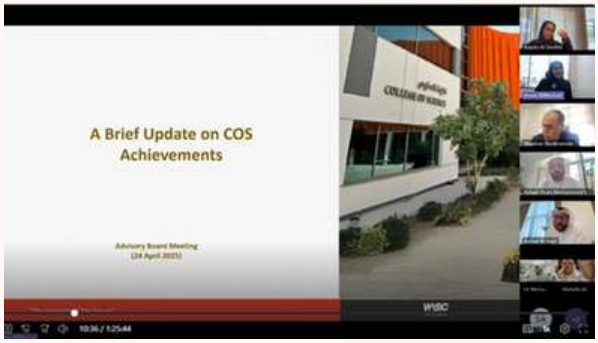
Mini-Symposium - AI in Education: Student Perspectives

AI tools are now being widely used by students to help with their academic activities. To bring students together to discuss how they use AI, the College of Science organized a mini- symposium titled "AI in Education: Student Perspectives" on 16 April 2025. Undergraduate students of the COS shared their experiences related to using AI for a variety of activities, including summarizing study materials, creating podcasts, scheduling activities, managing time, creating presentations, drafting emails, assisting neurodivergent students, etc. The sessions were very engaging and provided a fresh perspective on how AI can assist students. Two students - Ms Fatima Almaazmi (Chemistry) and Ms Taqeya Ahmed Yahya Alnuaimi (Biology) - shared the best presenter award. The event was organized by Prof. Ranjit Vijayan (Biology) with the support of the College of Science.

College Advisory Board Meetings

College of Science held its first Advisory Board meeting for 2024-2025 on November 14th, 2024, at the College of Science. Mr. Sultan Hajji, the Advisory Board Chair, presided over the meeting. A wide range of subjects were reviewed and passionately discussed during the meeting, including recent accomplishments by the College, newly proposed and reaccredited programs, the upcoming International Conference on Engineering Geophysics, cooperation with other institutions, among others. The College thanks the Board Members for their support and full engagement and commitment to the success of the College in realizing its strategic goals.

The College of Science convened its second Advisory Board meeting for the academic year 2024-2025 on April 24, 2025, via an online platform. The meeting was chaired by Mr. Sultan Hajji, Advisory Board Chair. Board members engaged in thoughtful and energetic discussions on a range of key topics, including: Recent accomplishments of the College, The College Action Plan (2025-2029), Newly proposed and reaccredited academic programs, Upcoming events and initiatives, Opportunities for collaboration with external institutions, and so on. The College extends its sincere appreciation to all Advisory Board members for their continued support, active participation, and dedication to helping advance the College's strategic vision.



Meeting with Al Ain City Municipality

On October 10, 2024, a delegation from the College of Science led by Profs. Maamar Benkraouda, Haydar Baker, and Hakim Saibi met with His Excellency Eng. Ahmed Abdulla Ahmed AlKuwaiti, Executive Director of Town Planning Sector - Al-Ain Municipality, and his team to discuss the preparations for the upcoming Eighth International Conference on Engineering Geophysics (ICEG 2026), which will be held at the UAEU on April 14-16, 2026.

Meeting with Dr. Shawqi Kharbash (Executive Director, UAEU SIP)

On Tuesday, March 11, 2025, the College of Science hosted a meeting with Dr. Shawqi Kharbash, Executive Director of the UAEU-SIP (UAEU's Strategic Initiatives and Programs), and his team. The meeting explored the College's potential involvement in SIP's upcoming incubation and commercialization programs. This meeting marked an important step in strengthening collaboration between the College and UAEU-SIP, with exciting opportunities ahead.

Showcasing Our Forensic Science Master Program on the Global Stage

The MSc Forensic Science Program at UAE University was prominently showcased at the World Police Summit 2025, held from 13-15May at the Dubai World Trade Centre under the esteemed patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum. The university delegation highlighted its advanced forensic research facilities and academic excellence while engaging with international law enforcement leaders and scientific experts. A key outcome was a promising meeting with Monash University, Australia—initiated by H.E. Ahmed Alraeesi, Vice Chancellor—focused on future collaboration, including the potential expansion of the MSc program into a PhD track, development of joint research grants, and shared scientific initiatives. The delegation included Prof. Maamar Benkraouda (Dean, College of Science), Prof. Ali Al Marzouki (Dean, College of Graduate Studies), Dr. Ruwaya Alkindi, Prof. Iltaf Shah, Dr. Abbas Hassan, and Dr. Khalid Muhammad, along with PhD students who also participated in the exhibition.

Social and Student Activities

College of Science Student Recognition Ceremonies – Academic Year 2024–2025

The College of Science held two distinguished Recognition Ceremonies during the 2024-2025 academic year to honor outstanding students for their exceptional academic performance and dedication.

Spring 2024 Recognition Ceremony

The first ceremony took place on November 13, 2024, recognizing students who achieved outstanding academic results during the Spring 2024 semester.

The event was graced by the presence of Professor Maamar Benkraouda, Dean of the College of Science, along with Dr. Yusra Al Dhaheri, Assistant Dean for Student Affairs, and the Heads of Departments. Together, they presented trophies and certificates to top students on Dean's List and to Honors Students with the highest cumulative GPAs.

The ceremony featured two inspiring guest speakers. Professor Mohammad Masud from the College of Information Technology (UAEU) delivered a thought-provoking talk titled "How Science Has Enabled the Rise of AI, and in Turn, How AI Is Advancing Science." Dr. Arwa Baabdulla from the College of Science (UAEU) shared her personal academic journey through her presentation "From Aspiration to Achievement: My Ph.D. Journey."

The event celebrated the students' hard work, determination, and academic excellence, reflecting the College's commitment to nurturing scientific curiosity and lifelong learning.

Fall 2024 Honoring Ceremony

The College of Science Honor Students Committee hosted the second ceremony on April 15, 2025, in the IT Auditorium (Female Side) to celebrate students who earned a place on the Dean's List and Honors List for Fall 2024.

The ceremony commenced with the UAE National Anthem, followed by welcoming remarks from Professor Maamar Benkraouda, who emphasized the lasting impact of academic excellence on students' future success.

A keynote address titled "Artificial Intelligence and the Future of Being Brilliant" was presented by Dr. Alistair Vogan from the Center for Excellence in Teaching and Learning at UAEU. His engaging talk provided valuable insights into how AI is shaping the future of learning, research, and innovation.

The celebration concluded with the recognition of students who achieved top academic honors for Fall 2024. Honorees were invited to the stage to receive certificates and gifts, symbolizing their perseverance, discipline, and dedication to excellence.

Culture & Entertainment Day

College of Science Culture and Entertainment Day (November 7th, 2024) was an unforgettable evening that included sporting events and cross-cultural interactions with the COS family. The event was led by Prof. Muhammad Syam, the coordinator of the social activities committee, and the department representatives of the committee. A multi-cultural dinner was also organized in conjunction with the programs.

Poster Exhibition Days – College of Science Internship Unit

The College of Science Internship Unit successfully organized Poster Exhibition Days during the Fall 2024 and Spring 2025 semesters, held on December 12, 2024, and May 12, 2025, respectively.
During these events, students from various departments presented posters highlighting their internship experiences, training outcomes, and key learnings gained from placements at diverse institutions and organizations. The exhibitions served as an engaging platform for students to showcase their professional growth, exchange insights, and share best practices across disciplines.
These poster sessions not only celebrated student achievements but also fostered peer learning and networking opportunities, inspiring participants to explore and prepare for future internships. The Internship Unit continues to emphasize experiential learning as a cornerstone of academic and career development within the College of Science.

53rd National Day Celebrations

On the occasion of the 53rd UAE National Day, the Dean's Office and the Departments of the College of Science hosted a social breakfast gathering along with several social activities. All faculty and staff members attended and enjoyed the colorful day.

Students Orientation Day

The academic departments and the advising unit at the College of Science hosted a Student Orientation Day on October 2, 2024. The event aimed to introduce the programs offered and to encourage new students to join the college's Bachelor programs. It was an engaging day filled with valuable information and activities.

Mole Day

The Chemistry Club, led by Dr. Abdelouahid Samadi, celebrated "Mole Day," one of the Chemistry Department's highlighted events. The event took place on Wednesday, October 30th, 2024, in the Science and Innovation Park. The event highlighted the Avogadro's number (6.022×10^{23}) and aimed to increase knowledge of the mole concept in chemistry. The event featured instructive activities, scientific experiments, and engaging talks, as well as five interactive stations titled "Make Your Perfume, Discover Magical Chemistry, Chemistry in Crime Scenes, Chemistry & Fitness, and Chemistry in Food". The event was attended by faculty members and students from various colleges across UAEU.

World Space Week

The Department of Physics and the Physics Club celebrated World Space Week by organizing an exciting 3-day of event (7-9 October, 2024). The event highlighted the wonders of outer space and promoted interest in astronomy and space science. Throughout the celebration, a variety of activities were held, including workshops, lectures, interactive exhibits, and a sunspot viewing on campus. Visitors had the opportunity to learn about the latest advancements in space exploration and the role of physics in understanding the universe. They also participated in hands-on experiments, making the event both educational and engaging. It was a fantastic opportunity for everyone to expand their knowledge and appreciation of the cosmos while fostering curiosity and innovation.

Young Researcher's Forum on Physics Frontiers

On Friday, 22nd November 2024, the Physics Department hosted the Young Researcher's Forum on Physics Frontiers at UAE University, which brought together Faculty, PhD students, Postdocs and Researchers from UAE University and Khalifa University, Abu Dhabi. The forum was an inspiring platform for showcasing innovative research and fostering academic collaboration. The presentations covered a diverse range of topics, highlighting innovative solutions and fresh perspectives across various fields in Physics and material science.

Physics and Astronomy Day

The Physics Club at the Department of Physics organized Physics and Astronomy Day on 15 April 2025, under the theme "From Atoms to Stars: The Physics Adventure." This full-day event aimed to promote the Physics and Space Sciences programs among high school students and newly admitted university students. The program featured engaging hands-on activities designed to spark curiosity and foster a deeper interest in physics and space science disciplines.

Science Week 2025

Science Week 2025, held on January 28-29 was an exciting and immersive event that invited students to explore the wonders of science through 15 interactive and educational booths. The event showcased a variety of scientific disciplines, from chemistry and biology to mathematics, geoscience, and even an illusion area. Key highlights included: The Science Museum, The Magic Lab, The Art Corner and The Gallery. Each booth offered hands- on experiments, captivating demonstrations, and artistic displays, bringing the beauty and application of science to life. Additionally, scientific debates on stage sparked curiosity, igniting meaningful conversations about the impact and importance of science in our daily lives. The event attracted students and teachers from 35 schools, with a total of 1,345 participants registered. This event served as a celebration of science, aimed at inspiring students to pursue science majors while challenging and correcting misconceptions about these fields.

Innovation Month Activities 2025

As part of UAE Innovation Month 2025, which took place throughout February, the College of Science (COS) hosted a series of impactful events coordinated by Dr. M. Kalim Akhtar, Coordinator of the College Innovation Support Committee, with the support of a dedicated team of faculty members, administrators, and both PhD and undergraduate students. COS organized three key events during the month: the UAE-Italy Bilateral Conference on 'Advanced Materials for the 21st Century,' an Intercollegiate Debate, and an Entrepreneurship Challenge. For the competition-based events, COS collaborated closely with the College of Law, the College of Business and Economics, and the Emirates Center for Entrepreneurship Research. These cross-college initiatives encouraged dialogue and collaboration across disciplines within the UAEU community, while also nurturing a strong spirit of innovation among students. COS showcased innovation not only through the content and outcomes of these events but also in its collaborative and inclusive approach, laying the groundwork for sustained progress in scientific and entrepreneurial innovation.

Biology Graduate Research Day – Spring 2025 Highlights

The Biology Graduate Research Day (BGRD) was successfully held on May 2, 2025, bringing together MSc and PhD students for a vibrant exchange of research ideas, scientific dialogue, and peer feedback. Organized each semester, BGRD provides an essential platform for students to showcase their research progress and receive constructive input from faculty and peers. The event concluded with awards for outstanding presentations. In the PhD category, Muhammad Ibtisam Nasar won first place for his work on metabolic interactions using gene expression profiles, followed by Syed Sabih ur Rehman (second) for his systems biology approach to gut microbiome-related diseases, and Amanpreet Behl (third) for her analysis of marine pollution in the Arabian Gulf. In the MSc category, Huda Meqdad earned top recognition for her research using satellite remote sensing to monitor coastal water quality in Abu Dhabi.

5th International Chemistry Olympiad

The United Arab Emirates proudly hosted the 57th International Chemistry Olympiad (IChO2025) from 5-14 July in Dubai, welcoming over 360 students and 300 mentors from more than 90 countries. As the official Knowledge Partner, United Arab Emirates University (UAEU) played a leading role in both organization and scientific oversight, with several faculty members serving on the prestigious Scientific Committee.

The UAE national team comprising four outstanding high school students was selected through rigorous national trials and received intensive training at UAEU and the Sirius Educational Centre in Russia. During the Olympiad, they competed alongside the brightest young chemists worldwide, proudly representing the nation.

Marking the largest edition of the Olympiad to date, the event unfolded across ten days of intensive theoretical and experimental competitions, fostering global collaboration and celebrating scientific excellence. Beyond competition, more than 200 UAEU undergraduate, Master's, and PhD students contributed significantly to supporting the preparation and review of the Olympiad's problems, assisting organizational tasks, and ensuring the exams met international standards. The Scientific Committee alone invested over 100,000 working hours to prepare and refine the challenging tasks of IChO 2025, reflecting the immense dedication and effort behind the success of this global event.

This milestone not only set new benchmarks for participation and excellence but also underscored UAEU's leadership in advancing chemistry education, nurturing young scientific talent, and strengthening international scientific exchange.

Chemistry Club and UAEU ACS Student Chapter Honor Graduating Students

The Chemistry Club and the UAEU ACS Student Chapter, under the supervision of Dr. Abdelouahid Samadi, at the Chemistry Department proudly hosted the Graduation Honoring Ceremony, recognizing the exceptional contributions of graduating students from the 2024-2025 academic year. The event celebrated students who demonstrated remarkable dedication and active involvement throughout their academic journey. Certificates of appreciation were awarded as a token of gratitude for their hard work and lasting impact on the university community.

College of Science Hosts End-of-Year Gathering 2025

The College of Science successfully organized its End-of-Year Gathering 2025 on 17th June, bringing together Assistant Deans, Head of the Departments, faculty members, staff and students to celebrate the accomplishments of the academic year 2024-2025. The Dean of the College, welcomed the attendees and highlighted the collective efforts and achievements of the College of Science community. A special video presentation showcased the college's key achievements, including top research publications of the year 2023. The College Academic Quality Assurance Committee received the 'Best Committee of the Year' award in recognition of its outstanding contributions.

On behalf of the Dean's Office, Vice Dean of the College expressed appreciation to all participants and extended sincere thanks to the team members who worked diligently behind the scenes to ensure the success of the event. The gathering concluded with a social dinner, providing an opportunity for the COS community to connect and reflect on the year's successes in a friendly and informal setting.

Scientific and Educational Exhibitions

College of Science Participation in International Education Show

UAEU attended the International Education Show, which took place at the EXPO Centre Sharjah from October 9 to 12, 2024. Professor Salem Ben Said from the Department of Mathematical Sciences represented the College of Science in the exhibition. This presentation was a huge success, highlighting the numerous programs offered by its five departments. This collaboration not only increased the College's visibility, but also provided a significant platform for connecting with exceptional students interested in furthering their studies in a variety of subjects at prestigious universities. The goal is to attract future academics to the College of Science, where they can further their academic and professional goals.

College of Science Participation in the Najah Abu Dhabi Education Fair

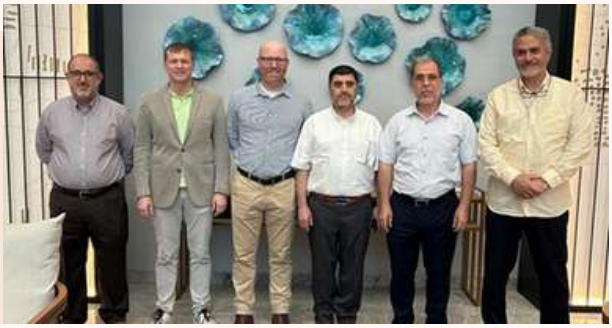
The Najah Abu Dhabi Education Fair is the leading higher education fair in the MENA region and a successful platform for higher education student recruitment in the UAE. The 2024 edition took place in the Abu Dhabi National Exhibition Centre (ADNEC) from October 27 to October 29 and Dr. Mahmoud Abu-Saima represented the College of Science.

Prominent Scientific Visits

Delegation Visit from the University of Ljubljana, Slovenia

The Chemistry Department was pleased to welcome two faculty members from the University of Ljubljana's Chemistry Department during September 16-20, 2024. Dr.Franc Perdih, an inorganic chemist, and Dr. Krištof Kranjc, an organic chemist, participating in a mobility exchange program under Erasmus+. They met with the Dean of the College of Science, Prof. Maamar Benkraouda and Prof. Abbas Khalil,the Chair of the Chemistry Department, and other faculty members during their visit. This visit has resulted in good cooperation among faculty members,as well as research mobility activities for faculty members and/or graduate students.

Collaboration Visit of Dr. Richard Murray



On October 16, 2024, Dr. Richard Murray (Editor-in-Chief of Advanced Intelligent Systems, Advanced Robotic Research, and Advanced Intelligent Discovery) visited the Department of Chemistry at the College of Science. He also gave a presentation for faculty members and students about Artificial Intelligence and publishing in Wiley's Materials Science journals.

Collaboration Visit of Prof. Theodoors Ntaflos and Prof. Chun-Feng Li

The Department of Geosciences at the College of Science welcomed Prof. Theodoros Ntaflos from the University of Vienna (Austria), and Prof. Chun-Feng Li from Zhejiang University (China) to UAEU. Both distinguished geoscientists are conducting groundbreaking research on the mafic and ultramafic rocks and their platinum group element (PGE) mineralization within the UAE's ophiolites. During their visit, they presented two insightful seminars on 4th of November 2024 and engaged with faculty on potential future collaborations across a range of geoscience topics.

Collaboration Visit of Dr. Tanweer Khan

In our continual aim to grow our drug discovery footprint, the Department of Chemistry recently hosted Dr. Tanweer Khan (Senior Director, Global Head of Discovery Chemistry, Atai Life Sciences) invited by Dr. Yasir Raouf. During his visit, Dr. Tanweer presented a thrilling talk into the principles of medicinal chemistry and drug design where he discussed structure-based approaches on a series of aspartyl protease inhibitors as novel treatments against Alzheimer's Disease, hypertension, Malaria, and Leukemia. We look forward to many more visits and potential collaborations with key industry leaders in small molecule drug design.

Collaboration Visit of Prof. Michael Small

Prof Michael Small from the University of Western Australia (UWA) visited the Department of Mathematical Sciences during 19-22 November 2024. Prof. Michael Small is a pioneer researcher in Applied Mathematics and Data Science. Prof Michael presented two interesting seminars on AI and Mathematics, and on applications based on collaboration with industry and other sectors.

Delegation Visit from China University of Petroleum

On January 22, 2025, the Department of Geosciences welcomed a delegation of faculty and students from the School of Geoscience at China University of Petroleum (East China). The visit served as a platform for fruitful discussions on potential student exchange programs and faculty visit collaborations between UAEU and China University of Petroleum.

Post-accreditation Visit – Dr. Toby Underwood, Head of Professional Accreditation Standards, Royal Society of Chemistry (RSC)

We are proud to share that the Department of Chemistry, COS at UAE University welcomed Dr. Toby Underwood, Head of Professional Accreditation Standards, from the Royal Society of Chemistry (RSC) for a long-awaited post- accreditation visit that was postponed due to COVID-19. The RSC is deeply committed to fostering growth and innovation within the chemical sciences. During his visit, Toby toured classrooms, labs, UAEU Library, and met with the Dean, Head of the Department, faculty members and students. He led insightful discussions on recent changes in RSC standards, free student memberships, career opportunities, trends, and innovations in chemistry. Toby also shared perspectives on the global job market, improvements in research and academic skills, and comparisons of chemical education in different countries, emphasizing the essential skills students need to thrive in a constantly evolving job market.

Collaboration Visit: Dr. Mohamed Ahmed Bin Saad from ADNOC Onshore

On April 15, 2025, Dr. Mohamed Ahmed Bin Saad from ADNOC Onshore – TC (SS & DM) visited the Department of Geosciences to explore potential collaboration opportunities. As part of his visit, he attended the IBA 2025 Student Team Presentation in the Geophysics Lab alongside faculty and staff. He also held a constructive meeting with Prof. Maamar Benkraouda, Dean of the College of Science, and Prof. Hasan Arman, Chair of the Department, to discuss future partnerships. The visit underscores a shared commitment to strengthening industry-academia ties and enhancing geoscience research and student engagement.

Insilico Medicine Delegation Visit

On May 12, 2025, the Department of Chemistry hosted a seminar with a delegation from Insilico Medicine, led by Dr. Yasir Raouf. Representatives Vlad Aladinskiy, Arkadii Lin, and Aisha Aldhanhani from the Masdar City team presented on AI-powered drug discovery, highlighting structure generation, early-stage screening, and the Chemistry42 platform.

Collaboration Visit from Lund University and TII Researchers

As part of an ongoing international collaboration under Dr. Mohamed Qenawy's startup grant, the College of Science welcomed distinguished visitors from 21 to 23 April 2025.
Prof. Tönu Pullerits and Prof. Kaibo Zheng from Lund University (Sweden), along with Dr. Pavel Chabera from the Technology Innovation Institute (TII), Abu Dhabi, visited the college to discuss joint research activities and future collaboration opportunities between their institutions and UAEU.
During their visit, the delegation held in-depth discussions on the progress of ongoing projects between Lund University and UAEU research labs. They also met with the Dean of the College of Science, the Chair of the Department of Chemistry, and faculty members from both the Departments of Chemistry and Physics. Additionally, the visitors engaged with undergraduate and graduate students, sharing their research experiences and offering valuable scientific insights.

ADNOC Upstream Visits the College of Science for Strategic Collaboration

On June 9, 2025, a delegation from ADNOC Upstream, including Dr. Mohamed Mahgoub, Ms. Hamda Alshehhi, and Ms. Safeya Alkatheeri, visited the College of Science to explore potential collaborative opportunities. The meeting was initiated by Prof. Maamar Benkraouda, Dean of the College of Science, who welcomed the visitors and opened the discussion by highlighting key areas for potential collaboration between ADNOC and the College. During the meeting, the ADNOC team presented their proposal and outlined the scope of work for a new integrated project.

UAEU College of Science Meets with ADOC Japan to Explore Future Collaboration

On June 23, 2025, a delegation from the College of Science at the United Arab Emirates University (UAEU) visited Abu Dhabi Oil Co., LTD (ADOC) Japan in Abu Dhabi to discuss potential areas of collaboration in research, education, and training.

The College of Science delegation was represented by Prof. Maamar Benkraouda, Dean of the College of Science, Prof. Saleh Thaker (Chair of the Department of Physics), Prof.Yaser Greish (Chemistry), and Prof. Hakim Saibi (Geosciences). The ADOC team included Mr. Tamura Shigetoshi, Mr. Nobuaki Monzawa, Mr. Hideaki Kuramata, Mr. Nobuhiko Motegi, and Mr. Adel Al Hosani. This meeting marked a positive step towards fostering academic-industry partnership, with discussions focusing on joint research projects, student internship opportunities, and knowledge exchange programs.

COMING **EVENTS**

Eighth International Conference on Engineering Geophysics (ICEG 2026)

April 14-16, 2026

APPENDICES

APPENDIX 1

GRADUATE STUDENTS' PUBLICATIONS

#	Student Name	Program	Title of the Paper	Name of Journal
MSc Students				
1	Sara Ali Abdulla Maleeh Alneyadi	Molecular Biology and Biotechnology	Ectopic expression of potato ARP1 encoding auxin-repressed protein confers salinity stress tolerance in *Arabidopsis thaliana*	PloS ONE
2	Mohamad Abdelrahim Hamdan	Molecular Biology and Biotechnology	Melatonin increases AKT and SOD gene and protein expressions in diabetic rats	Heliyon
3	Mohamad Abdelrahim Hamdan	Molecular Biology and Biotechnology	*kdr* mutations and deltamethrin resistance in house flies in Abu Dhabi, UAE	Parasites and Vectors
4	Mohamad Abdelrahim Hamdan	Molecular Biology and Biotechnology	The southern house mosquito Culex quinquefasciatus in Abu Dhabi, UAE, is developing resistance to deltamethrin insecticide	Scientific Reports
5	Zohra Nausheen Nizami	Molecular Biology and Biotechnology	Phytochemical-mediated modulation of autophagy and endoplasmic reticulum stress as a cancer therapeutic approach	Frontiers in Pharmacology
6	Zohra Nausheen Nizami	Molecular Biology and Biotechnology	*Rhus coriaria* induces autophagic and apoptotic cell death in pancreatic cancer cells	Phytotherapy Research
7	Zohra Nausheen Nizami	Molecular Biology and Biotechnology	*Rhus coriaria* (Sumac) induces autophagic cell death and inhibits mTOR, p38MAPK and STAT3 pathways in 5fluorouracil-resistant colorectal cancer cells	Frontiers in Pharmacology
8	Aaesha Mohammad Adam Mohammad Rahma	Molecular Biology and Biotechnology	Molecular insights into the inhibition of angiotensin-converting enzyme 1 by hemopressin peptides	Scientific Reports
9	Abdalla Saad Elsayed Kotb Elshaal	Space Science	Structural Analysis of AlAinSat-1 CubeSat	Egyptian Journal of Remote Sensing and Space Science

10	Abdalla Saad Elsayed Kotb Elshaal	Space Science	Developing a Matlab-Based Power Generation Code for CubeSats	Advances in Science and Engineering Technology International Conferences, ASET, 2024
11	Mark Essa King Sukaiti	Mathematics	Alexander and Jones polynomials of weaving 3-braid links and whitney rank polynomials of lucas lattice	Heliyon
12	Ammara Aftab	Space Science	Radio Emission from High-redshift Active Galactic Nuclei in the JADES and CEERS Surveys	Astronomical Journal,
13	Abdullah Mohammed Abdulwahhab Alsalmani	Space Science	Enhancing Software Development in Space Missions: An Integrated Agile-V Model Approach	Proceedings of the International Astronautical Congress, IAC, pp. 700–70
14	Abdulla Mohammed Saif Saeed Alhemairi	Space Science	Advancements in Biological Strategies for Controlling Harmful Algal Blooms (HABs)	Water (Switzerland),
15	Shamaa Abdul Samad	Molecular Biology & Biotechnology	Molecular insights into the inhibition of angiotensin-converting enzyme 1 by hemopressin peptides	Scientific Reports
16	Ashwaq Abdulla Mubarak Abdulla Alkaabi	Space Science	EG10 AI on AI Training AI Classifier on AI-Generated Remote Sensing Images	7th International Conference on Engineering Geophysics
17	Anas Saeb Husni Alhasan	Mathematics	Fractional derivative modeling of heat transfer and fluid flow around a contracting permeable infinite cylinder: Computational study	Partial Differential Equations in Applied Mathematics
18	Asma Yousef Rashed Mohammed Alkaabi	Chemistry	Empowering Women in Engineering Education through undergraduate Research Projects	Chemical Engineering Transactions

19	Fidha Farzana Ismail	Geosciences	P03: Groundwater study using Audio-Magnetotelluric Data at Falaj Mazyad in the eastern Abu Dhabi Emirate, Al-Ain region, UAE	7th International Conference on Engineering Geophysics
20	Yaman Mothanna Sabsabi	Mathematics	How Vaccination Helps to Relax the Population Mobility: An Agent-Based Model Approach	Modeling and Simulation in Science Engineering and Technology
21	Lana Mohammad Abed Alhaq	Mathematics	An efficient numerical method for two-dimensional fractional integro-differential equations with modified Atangana–Baleanu fractional derivative using the operational matrix approach	Partial Differential Equations in Applied Mathematics
22	Lana Mohammad Abed Alhaq	Mathematics	A novel numerical method for solving modified atangana-baleanu fractional problems based on the operational matrix method	Fractals
PhD Students				
23	Khalid Galal Eldin Mohamed Khair Elhaj	Geosciences	EG09: Artificial Intelligence Potential in Digitizing Old and Raw Geodata	7th International Conference on Engineering Geophysics, ICEG 2023
24	Khalid Galal Eldin Mohamed Khair Elhaj	Geosciences	Geospatial stable isotopes signatures of groundwater in United Arab Emirates using machine learning	Journal of Hydrology: Regional Studies
25	Khalid Galal Eldin Mohamed Khair Elhaj	Geosciences	P04: A review of stable oxygen and hydrogen isotopes in groundwater of the UAE and environmental impact	7th International Conference on Engineering Geophysics, ICEG 2023
26	Khadega Abobakr Abdulrahman Al Maqdi	Chemistry	Thermophilic bioremediation of recalcitrant emerging pollutants: A novel application of the fungal DyP from Pleurotus sapidus	Environmental Technology and Innovation

27	Wadha Khalifa Salem Rashed Alfalasi	Physics	Ab initio investigation of functionalization of titanium carbide Ti3C2 MXenes to tune the selective detection of lung cancer biomarkers	Scientific Reports
28	Wadha Khalifa Salem Rashed Alfalasi	Physics	Light-metal functionalized boron monoxide monolayers as efficient hydrogen storage material: Insights from DFT simulations	Journal of Energy Storage
29	Wadha Khalifa Salem Rashed Alfalasi	Physics	Efficient detection of lung cancer biomarkers using functionalized transition metal dichalcogenides (MoS2) Monolayers: DFT study	FlatChem
30	Wadha Khalifa Salem Rashed Alfalasi	Physics	Enhancement of hydrogen storage using functionalized MoSe2/Graphene monolayer and bilayer systems: DFT study	International Journal of Hydrogen Energy
31	Wadha Khalifa Salem Rashed Alfalasi	Physics	Functionalized molybdenum disulfide (MoS2) monolayer as an efficient nanosensor towards toxic nitrogen containing gases	Environmental Science:Nano
32	Laila Yahya Mohammed Al-Sakkaf	Physics	Handbook of exact solutions to the nonlinear schrödinger equations (second edition)	Handbook of Exact Solutions to the Nonlinear Schrödinger Equations (Second Edition
33	Laila Yahya Mohammed Al-Sakkaf	Physics	Quantum droplet molecules in Bose-Bose mixtures	Physics Letters, Section A: General, Atomic and Solid State Physics
34	Reem H. H. Alzard	Chemistry	Heterogeneous Acetalization of Benzaldehyde over Lanthanide Oxalate Metal-Organic Frameworks	ACS Omega

35	Reem H. H. Alzard	Chemistry	Structural analysis and photocatalytic activities of bismuth-lanthanide oxide perovskites	Journal of Solid-State Chemistry
36	Rana Fawzi Mohamed Mohamed Morsi	Chemistry	HPLC-MS/MS monitoring and health risk assessment of carbosulfan and its metabolites in date palm fruit (Phoenix dactylifera)	Scientific Reports
37	Rana Fawzi Mohamed Mohamed Morsi	Chemistry	Determination and health risk assessment of carbamate pesticide residues in date palm fruits (Phoenix dactylifera) using QuEChERS method and UHPLC-MS/MS	Scientific Reports
38	Rana Fawzi Mohamed Mohamed Morsi	Chemistry	Detection of 11 carbamate pesticide residues in raw and pasteurized camel milk samples using liquid chromatography tandem mass spectrometry: Method development, method validation, and health risk assessment	Journal of Diary Science
39	Rana Fawzi Mohamed Mohamed Morsi	Chemistry	Recent Advances in the Chromatographic Analysis of Emerging Pollutants in Dairy Milk: A Review (2018–2023)	Molecules
40	Feras A M H Alsalem	Chemistry	Produced Water from the Oil and Gas Industry as a Resource—South Kuwait as a Case Study	Resources
41	Shaima Malik	Cellular & Molecular Biology	Determination of potentially toxic elements bioaccumulated in the commercially important pelagic fish narrow-barred Spanish mackerel (*Scomberomorus commerson*)	Marine Pollution Bulletin, 201, 116281
42	Sandy Abdelaal Elmehrath	Chemistry	Antibacterial efficacy of copper-based metal-organic frameworks against Escherichia coli and Lactobacillus	RSC Advances
43	Hammad Mueen Arbi	Physics	Polypyrrole-Assisted Ag Doping Strategy to Boost Co(OH)2 Nanosheets on Ni Foam as a Novel Electrode for High-Performance Hybrid Supercapacitors (	Nanomaterials

44	Abdul Kareem Kalathil Soopy	Physics	Enhancement of Photodetector Characteristics by Zn-Porphyrin-Passivated MAPbBr3 Single Crystals	Nanomaterials
45	Abdul Kareem Kalathil Soopy	Physics	Zn–Porphyrin Antisolvent Engineering-Enhanced Grain Boundary Passivation for High-Performance Perovskite Solar Cell	Solar RRL
46	Abdul Kareem Kalathil Soopy	Physics	Fast and Facile Synthesis of Passivated Perovskite Single Crystals with Zn-Porphyrin Derivatives	Journal of Physics: Conference Series
47	Abdul Kareem Kalathil Soopy	Physics	Towards High Performance: Solution-Processed Perovskite Solar Cells with Cu-Doped CH3NH3PbI3	Nanomaterials
48	Biruk Abera Cherkose	Geosciences	EG15: Magnetotelluric Imaging of the Tendaho Geothermal Field in the Afar Depression, Northeastern Ethiopia	7th International Conference on Engineering Geophysics,
49	Biruk Abera Cherkose	Geosciences	P03: Groundwater study using Audio-Magnetotelluric Data at Falaj Mazyad in the eastern Abu Dhabi Emirate, Al-Ain region, UAE	7th International Conference on Engineering Geophysics, ICEG 2023
50	Subha Chandran	Cellular & Molecular Biology	Irrigation Water Source Matters: Saline Groundwater Irrigation Lowers Date Palm Root-Associated Fungal Richness and Alters Their Community Structural Patterns	Phytobiomes Journal
51	Stephan Bruns	Ecology and Environmental Sciences	A mouthless late-term coach whipray Himantura uarnak embryo (Elasmobranchii, Dasyatidae) has implications for our understanding of matrotrophy in chondrichthyans	Journal of Fish Biology
52	Stephan Bruns	Ecology and Environmental Sciences	A wandering wedgefish illustrates the need for cooperative elasmobranch conservation in the Arabian Gulf	Environmental Biology of Fishes

53	Stephan Bruns	Ecology and Environmental Sciences	Notable abundance of two Critically Endangered elasmobranch fishes near an area of intensive coastal development in the Arabian Gulf	Endangered Species Research
54	Rener Sahot De Jesus	Ecology and Environmental Sciences	Efficacy and clinical potential of phage therapy in treating methicillin-resistant Staphylococcus aureus (MRSA) infections: A review	European Journal of Microbiology and Immunology
55	Rener Sahot De Jesus	Ecology and Environmental Sciences	Heterogenous bioluminescence patterns, cell viability, and biofilm formation of Photobacterium leiognathi strains exposed to ground microplastics	Frontiers in Toxicology
56	Irfa Anwar	Cellular & Molecular Biology	Invited review: Camel milk–derived bioactive peptides and diabetes—Molecular view and perspectives	Journal of Dairy Science
57	James Kegere	Chemistry	Titanium metal-organic frameworks for photocatalytic CO2 conversion through a cycloaddition reaction	Nanoscale Advances
58	Shahana Seher Malik	Cellular & Molecular Biology	Bacterial resistome in different stages of wastewater treatment plant is highly impacted by the abundance of the Pseudomonadota community	Bioresource Technology Reports
59	Najwa Qasem Hussein Al Bouzieh	Physics	DFT studies on electronic, elastic, thermoelectric and optical properties of new half-heusler XRhZ (X =V, Nb and Z = Si, Ge) semiconductors	East European Journal of Physics
60	Najwa Qasem Hussein Al Bouzieh	Physics	Structural, electronic, elastic, optical and thermoelectric properties of ASiCl3 (A = Li, Rb and Cs) chloroperovskites: a DFT study	Optical and Quantum Electronics
61	Najwa Qasem Hussein Al Bouzieh	Physics	Electronic, Mechanical, and thermoelectric properties of Ge/Zn co-doped SnSe: First-principles calculations	Journal of Physics: Conference Series

62	*Najwa Qasem Hussein Al Bouzieh*	*Physics*	*Exploring Hafnium-induced transformations in SnSe allotropes: Insights into structural, electronic, optical, and mechanical modifications for enhanced optoelectronic utilization*	*Materials Today Communications*
63	Aminah Husein Qawasmeh	Mathematics	On Gibbs measures of the Ising model on (k, m) -ary trees	Reviews in Mathematical Physics
64	Fareeha Jamal	Mathematics	Distance spectrum of some zero divisor graphs	AIMS Mathematics
65	Fareeha Jamal	Mathematics	Bounds on sombor index and inverse sum indeg (ISI) index of graph operations	Communications in Combinatorics and Optimization
66	Abdulmuizz Adamson	Chemistry	High-performance single-atom M/TiO2 catalysts in the reverse water-gas shift reaction: A comprehensive experimental and theoretical investigation	Journal of CO2 Utilization
67	Abdulmuizz Adamson	Chemistry	The impact of surface-impregnated versus support-dispersed Fe in Fe–Ni/γ-Al2O3 catalysts for partial oxidation of methane: Insights into the effect of Fe incorporation method on coking and on the reaction mechanism	International Journal of Hydrogen Energy
68	Abdulmuizz Adamson	Chemistry	Application of natural earth-based materials as adsorbents for the treatment of chromium (VI)-contaminated tannery wastewater: Box-Behnken and fixed-bed column optimization	Sustainable Chemistry for the Environment
69	Abdulmuizz Adamson	Chemistry	Phosphorescence by Trapping Defects in Boric Acid Induced by Thermal Processing	Advanced Optical Materials
70	Miranda Procter	Cellular & Molecular Biology	Genetic diversity of Cryptosporidium species from diarrhoeic ungulates in the United Arab Emirates	Veterinary Parasitology: Regional Studies and Reports

71	Miranda Procter	Cellular & Molecular Biology	The prevalence of selected vector-borne diseases in dromedary camels (Camelus dromedarius) in the United Arab Emirates	Veterinary Parasitology: Regional Studies and Reports
72	Miranda Procter	Cellular & Molecular Biology	The genome, pangenome, and physiological analysis of Leclercia adecarboxylata (kcgeb_e1), a plant growth-promoting bacterium	Discover Applied Sciences
73	Gouthaman Puthan Purayil	Cellular & Molecular Biology	A high-quality genome assembly and annotation of Thielaviopsis punctulata DSM102798	Scientific Data
74	Areej Mustafa Mohammad Jaradat	Ecology and Environmental Sciences	Camel tick species distribution in Saudi Arabia and United Arab Emirates using MaxEnt modelling	Parasitology
75	Amie Jobe	Cellular & Molecular Biology	Modeling the Binding of Anticancer Peptides and Mcl-1	International Journal of Molecular Sciences
76	Amie Jobe	Cellular & Molecular Biology	Computational Modeling of the Interactions between DPP IV and Hemorphins	International Journal of Molecular Sciences
77	Amie Jobe	Cellular & Molecular Biology	Orphan G protein-coupled receptors: the ongoing search for a home	Frontiers in Pharmacology
78	Ibrahim J.M. Alghoul	Physics	Efficient detection of lung cancer biomarkers using functionalized transition metal dichalcogenides (MoS2) Monolayers: DFT study	FlatChem
79	Abdelhalim Mahmoud Ibrahim Mohamed Ali	Geosciences	EG35: An integrated approach of remote sensing and DC resistivity techniques for geological and hydrogeological evaluation in wadi systems: a case study from the Eastern Desert, Egypt	7th International Conference on Engineering Geophysics, ICEG 2023
80	Mubbashra Sultan	Geosciences	Fifty years of land use and land cover mapping in the United Arab Emirates: a machine learning approach using Landsat satellite data	Frontiers in Earth Science

81	Mubbashra Sultan	Geosciences	EG33: Land Use and Land Cover Mapping using Google Earth Engine: A Comparative Analysis of Machine Learning Algorithms	7th International Conference on Engineering Geophysics, ICEG 2023
82	Beenish Sarfraz	Cellular & Molecular Biology	High-quality genome assembly and annotation of five bacteria isolated from the Abu Dhabi sabkha-shore region	BMC Genomic Data
83	Muhammad Kamran Hakeem	Chemistry	Evaluating a novel method for vitamin A analysis in an observational study of the UAE's obese population	Scientific Reports
84	Muhammad Kamran Hakeem	Chemistry	Harnessing nutritional immunity and advanced diagnostics for COVID-19 prevention	International Journal of Advanced and Applied Sciences
85	Muhammad Kamran Hakeem	Chemistry	Advancing Antibiotic Residue Analysis: LC-MS/MS Methodology for Ticarcillin Degradation Products in Tomato Leaves	Antibiotics
86	Muhammad Kamran Hakeem	Chemistry	Innovative determination of phytohormones in Aloe vera	Frontiers in Chemistry
87	Muhammad Kamran Hakeem	Chemistry	Innovative Detection of Testosterone Esters in Camel Hair: Unravelling the Mysteries of Dromedary Endocrinology	Molecules
88	Aysha Khaled Ali Abdulla Alraeesi	Chemistry	Innovative Detection of Testosterone Esters in Camel Hair: Unravelling the Mysteries of Dromedary Endocrinology	Molecules
89	Rasha M. E. Shat	Mathematics	Niho Bent Functions and Ovals in Small Dimensions	Gulf Journal of Mathematics
90	Tofeeq Ahmad	Geosciences	Correction to: Spatial distribution of physicochemical parameters and drinking and irrigation water quality indices in the Jhelum River (Environmental Geochemistry and Health, (2024), 46, 8, (263), 10.1007/s10653-024-02026-y)	Environmental Geochemistry and Health

91	Tofeeq Ahmad	Geosciences	Spatial distribution of physicochemical parameters and drinking and irrigation water quality indices in the Jhelum River, Pakistan	Environmental Geochemistry and Health
92	Tofeeq Ahmad	Geosciences	AI-Powered Water Quality Index Prediction: Unveiling Machine Learning Precision in Hyper-Arid Regions	Earth Systems and Environment
93	Sameera Karumannil	Cellular & Molecular Biology	Modulation of antioxidant defense and PSII components by exogenously applied acetate mitigates salinity stress in Avena sativa	Scientific Reports
94	Sameera Karumannil	Cellular & Molecular Biology	Ectopic expression of potato ARP1 encoding auxin-repressed protein confers salinity stress tolerance in Arabidopsis thaliana	PLoS One
95	Mazoun Talal Abdul Rahman AL Azzani	Cellular & Molecular Biology	Phytochemical-mediated modulation of autophagy and endoplasmic reticulum stress as a cancer therapeutic approach	Phytotherapy Research
96	Mohamed Magramane	Cellular & Molecular Biology	*Rhus coriaria* induces autophagic and apoptotic cell death in pancreatic cancer cells	Frontiers in Pharmacology
97	Muhammad Ibtisam Nasar	Cellular & Molecular Biology	PHA4GE quality control contextual data tags: standardized annotations for sharing public health sequence datasets with known quality issues to facilitate testing and training	Microbial Genomics

APPENDIX 2

MASTER AND PhD THESIS DEFENSES (AY: 2024-2025)

Master and PhD Thesis Defenses (Fall 2024)

#	Student Name	Program	Thesis Title	Supervisor
Master Theses				
1	Shamaa Abdul Samad	Molecular Biology & Biotechnology	Anticancer Activity of Capparis spinosa Extract Against Colorectal Cancer	Yusra Aldhaheri
2	Shaikha Hamad Sultan Alameri	Environmental Sciences and Sustainability	Physiochemical characterization and in-vitro investigation of the effect of commercial and novel non-digestible fiber/prebiotics on the growth of probiotics	Nayla Munawar
3	Ahlam Awadh Bin Suwaidan	Environmental Sciences and Sustainability	Predicting the Current Habitat Distribution of Important Halophytes and Their Potential Future Shifts Under Climate Change Using Species Distribution Modeling	Taoufik Ksiksi
4	Kholood Al Jaberi	Environmental Sciences and Sustainability	Assessment of Heavy Metal Concentration in Orange-spotted Trevally (*Flavocaranx bajad*) from Two Coastal Locations in Abu Dhabi, United Arab Emirates	Sabir Bin Muzaffer
5	Aisha Juma Al Otaibi	Molecular Biology & Biotechnology	In Vitro Investigation of the Potential Therapeutic Implications of Safranal on Gastric Cancer	Rabah Iratni
6	Asma Rashed Mohammed Alkaabi	Chemistry	Corrosion behavior of 304 stainless steel in H2SO4/NaCl in the absence and presence of molybdate and tungstate	Ahmed Alshamsi
7	Sara Ramadan Abdalla Saada	Chemistry	Solvent- And Temperature-Controlled Regioselective Catalytic Synthesis of Potentially Bioactive Imidazolidineim-inodithiones	Zaid Moussa

8	Abedalqader Abuhussein	Chemistry	Synthesis And Biological Applications of Some Novel Selenourea-Quinoline, Selenourea-Benzoimidazole and Selenourea-Chromenone Derivatives	Zaid Moussa
9	Salem Anwar Alblooshi	Geosciences	Assessing climate change-induced drought in Abu Dhabi	Salem Bin Issa
10	Anas Saeb Husni Alhasan	Mathematics	Fractional Derivative-Based Analysis of the Heat Transfer Properties of Fluid Flow Over a Contracting Permeable Infinite-Length Cylinder	Qasem Al Mdallal
11	Yasmeen Hussein Hamida	Mathematics	Exclusion test for approximating all solutions of non-linear equations	Muhammed Syam
12	Saba Ibrahim Aldan	Mathematics	On fractional Dunkl-type Laplacian	Salem Ben Said
13	Naveed Ahmed Sayed	Mathematics	Eigenvalue problems with symmetry	Muhammed Syam
14	Hajir Mosa	Physics	Unital Kadison-Schwarz Type of Maps	Farrukh Mukhamedov
15	Ali Al Aali	Physics	Quantum Markov Chains Related to Certain Lattice Models	Farrukh Mukhamedov
16	Yahya Emran	Space Science	Modeling of Radio Array Distribution	Mohammad Naouss
17	Bashayer Ali Salem	Space Science	Quantifying aerosol concentrations and practice sizes in the UAE atmosphere using remote sensing	Khalid Hussein

PhD Dissertations				
1	Subha Chandran	Cellular & Molecular Biology	Assessing the impact of irrigation water and soil	Sunil Mundra
2	Hidaya Abdul Kader	Cellular & Molecular Biology	Role of B Cell Mediated Immune Responses During	Khalid Muhammad
3	James Kegere	Chemistry	Synthesis and Characterization of Metal-organic	Yaser Grish

Master and PhD Thesis Defenses (Spring & Summer 2025)

#	Student Name	Program	Thesis Title	Supervisor
Master Theses				
1	Lana Mohammad Aref	Mathematics	Analytical method for solving systems of fractional initial value problems using the modified Atangana-Baleanu	Mohammed Syam
2	Amal Abdulla Alblooshi	Molecular Biology & Biotechnology	Genomic and metabolic network properties in thermophiles and psychrophiles compared to mesophiles	Mohammed Alam
3	Mohammed Sharif Abdulla Alhosani	Molecular Biology & Biotechnology	Assessment of psychological and biochemical changes in tomato plants treated with plant growth promoting rhizobacteria (PGPR) under salinity stress conditions	Mayank Gururani
4	Ruqaiah Ali Qarwan Ahmed	Molecular Biology & Biotechnology	Fecal microbiota of healthy Arabian camels (Camelus dromedarius): A comprehensive study investigating various factors (Food, Camel type, and drinking water) and their influence on fecal microbiome diversity in Arabian camels	Khaled Amiri
5	Amgedsayed Ismat Sayed	Molecular Biology & Biotechnology	Culex quinquefasciatus Mosquitoes in the Abu Dhabi Emirate: Assessing Deltamethrin Insecticide Resistance and Associated Microbial Communities	Mohammed AlDeeb
6	Mohammed Hamdan	Molecular Biology & Biotechnology	House Flies *(Musca Domestica*) in Abu Dhabi Emirate: Assessing Deltamethrin Insecticide Resistance and Associated Microbial Communities	Mohammed AlDeeb
7	Jamileh Alarab	Chemistry	Preparation, and Characterization of Gypsum-Levan Composites and Evaluation of their preliminary in vitro characteristics	Nayla Munawar
8	Yamen Bawabji	Mathematics	Control system properties of discrete-time linear switched systems with application to epidemic models.	Abdessamad Tridane

9	Alfan Jehad Abulehia	Mathematics	Construction of stock portfolios by machine learning methods	Ho Hong
10	Afnan Alanqar	Chemistry	Detection and quantification of drugs and pesticides in food products of the UAE (dates and camel milk) by liquid chromatographic techniques	Mohamed Meetani
11	Mai Rashed Alkaabi	Geosciences	Study of the extension of cavities in Jebel Hafeet by implementing geophysical methods	Hakim Saibi
12	Saud Mohammed Alsenaani	Geosciences	Study of falaj paths and their unknown extension in Al-Ain city using geophysical	Hakim Saibi
13	Sanad Salem Fareaa	Geosciences	Monitoring Sand Migration in Al Ain city Utilizing Remote Sensing techniques	Mabrouk Hassan
14	Fidha Farzana Ismail	Geosciences	A Microgravity Investigation of the Subsurface at the United Arab Emirates University Campus	Hakim Saibi
15	Nehmat Kharrat	Environmental Sciences and Sustainability	Assessment of heavy metal concentration in blue swimming crabs from Dubai and Sharjah fish markets in UAE	Sabir Bin Muzaffar
16	Mohammed Abdulla Rashed Alshams	Environmental Sciences and Sustainability	Contrasting Genetic Diversity of TLR2 in Socotra Cormorants: Relatively Low Variation in the Arabian Gulf	Oliver Manlik
17	Ruaa Saadi	Space Science	A parallel, real-time FPGA implementation of the CCSDS 123.0-B-2 standards	Abdel-Halim Jallad
18	Rauda Salem Mohammed Salem Alshamsi	Molecular Biology & Biotechnology	genetic modification of tyrosinase gene in chicken primordial germ cells using CRISPR-Cas9	Rabah Iratni
19	Rym Magramane	Molecular Biology & Biotechnology	The Anticancer Activity of Novel Chromene Derivatives against Colorectal Cancer Cells	Rabah Iratni
20	Raghd O. H. Alsaadawi	Mathematics	Numerical Methods for Approximating Line Integrals Over Implicitly Defined Curves	Muhammed Syam

21	Rashad Assad Rashad Assad Hijji	Master of Science in Mathematics	Wavelet based multi-step methods multi-step methods for systems of differential equations multi-step methods for systems of differential equations.	Muhammed Hajii
22	Abdulla Esam Hasan Saleh Mahboub	Master of Science in Physics	Measurement and Improvement of Photon Identification Efficiencies using Machine Learning Techniques in the ATLAS Detector at the LHC	Saleh Nasri
23	Eman Mohammad Tawfiq Ghanem	Master of Science in Physics	Simulation and Molecular design of antimonide-based materials with high optoelectronic performance.	Noureddine Amrane
30	Ashwaq Abdulla Mubarak Abdulla Alkaabi	Space Science	Design of a rollable antenna system for satellite applications	Abdul-Halim Mufid Jallad
31	Hritik Mitra	Space Science	Multi-point and multi-station orbit propagation for non-functional drifting geo satellites	Aquib Moin

PhD Dissertations				
1	Shumaila Javed	Mathematics	An Accurate Numerical Method for Impulsively Started Flow past an Elliptical Cylinder in Nanofluidic Medium	Qasem Mustafa Al-Mdallal
2	Irfa Anwar	Cellular & Molecular Biology	Molecular Mechanisms and Role of Camel Milk Derived Bioactive Peptides Towards Insulin and GLP-1 Receptor Activation.	Khalid Muhammad
3	Shaima Malik	Ecology & Environmental Sciences	Diet, Bioaccumulation of Heavy Metals, and Population Genomics of Narrow-Barred Spanish Mackerel (*Scomberomorus commerson*) from the Arabian Gulf	Sabir Bin Muzaffar
4	Taimun Qaisar	Mathematics	Quadratic Stochastic Processes: Algebraic Structures and their Applications	Farrukh Mukhamedov

5	Rana Fawzi Morsi	Chemistry	Extraction and determination in camel milk and date palm fruit in the UAE, and photocatalytic degradation in water	Mohammed Almeetani
6	Priya Antony Pereppadan	Cellular & Molecular Biology	Therapeutic role of bioactive peptides derived from hemoglobin	Ranjit Vijayan
7	Miranda Procter	Cellular & Molecular Biology	Characterizing the host-microbe interactions of *citrulus colocynthis*	Khaled Amiri
8	Raner DeJesus	Cellular & Molecular Biology	From Microplastic Impacts to Biodegradation Solutions: Investigating Microplastic Contamination, Microbial Responses, and Efficacy of Synthetic Microbial Consortia in Plastic Degradation	Ruwaya Alkendi
9	Shahana Malik	Cellular & Molecular Biology	Antimicrobial resistance (AMR) emergence in sewage wastewater: An investigation based on advanced genomic methods	Sunil Mundra
10	Mariam Obaid Saeed Abdalla Alzaabi	Cellular & Molecular Biology	Structural And Functional Characterization of SOS Pathway Genes (SOS1, SOS2, SOS3) In Avicennia Marina: Insights into Salinity Stress Tolerance	Khaled Amiri
11	Karthika Kandamkulathil Gopi	Ecology & Environmental Sciences	Dynamics of mangrove carbon stock in selected UAE coastline: A remote sensing approach	Taoufik Ksiksi
12	Gouthaman Puthan Purayil	Cellular & Molecular Biology	Unravelling Host Defense and Pathogen Virulence in Fusarium proliferatum-Induced Sudden Decline Syndrome of Date Palm in the UAE	Synan AbuQamar

APPENDIX 3

RESEARCH GRANTS AWARDED IN 2024

No.	Name	Grant Type	Title
1	Hakim Saibi	Strategic Research	Broadband Magnetotelluric Data Modelling to Investigate the UAE's Fold–Thrust Belt Region
2	Qasem Al Mdallal	Strategic Research	Development, Performance Investigation, and Artificial Intelligence Modelling of Building Energy Systems towards Net Zero Energy Buildings
3	Synan AbuQamar	Strategic Research	A Three-way Transcriptome to Study the Biocontrol Mechanism of Two Streptomyces species against Fusarium proliferatum DSM106835, the Causal Agent of Sudden Death Syndrome, on Date Palm
4	Amit Kumar	Strategic Research	Investigating the Management-specific influence on microbial-mediated soil organic carbon dynamics And Greenhouse gas Emissions in Date palm cultivation (MANAGED-palm)
5	Abbas Khaleel	Strategic Research	Carbon dioxide to fuels and chemicals: Rational design of novel multifunctional catalysts for Direct CO2 conversion to ethanol
6	Mohamed Qenawy	Strategic Research	Automated Synthesis of Stable and Environmentally Friendly Two-dimensional Lead-Free Perovskite for Solar Cells Application
7	Ayham Zaitouny	Strategic Research	Deep Learning-based Models to Advance Diabetes Diagnosis
8	Abdelouahid Samadi	Strategic Research	Design, Synthesis, and Electrochemical Studies of Metal Chelators Derived from 8-Hydroxyquinoline for the Treatment of Parkinson's Disease
9	Farrukh Mukhamedov	UPAR	Construction of Quantum Genetic Algebras
10	Mofreh Zaghloul	UPAR	Development of Multi-Precision Numerical Algorithms for Computing Special Functions of Complex Variables using Two-Dimensional Chebyshev Subinterval Polynomial Approximation

11	Humberto Gil Silva Rafeiro	UPAR	Topics in Besov-Morrey spaces over local fields
12	Iltaf Shah	UPAR	Emerging Pesticides and Heavy Metals: A Looming Threat to Wheat Crops and Food Security in the UAE.
13	Thomas Fowler	UPAR	Investigation of the economic potential for ferromanganese and other metalliferous ore deposits in the NE Hajar Mountains, UAE
14	Khalid Muhammad	UPAR	Unraveling the Cellular and Molecular Dynamics of NFAT-Signaling Network in Managing Skin Allergy
15	Salem Ben Said	UPAR	Some aspects of harmonic analysis are associated to fractional powers of a differential-difference Laplacian operator
16	Jianhua Gong	UPAR	The Geometry of Moduli Spaces of Discrete Groups
17	Naser Qamhieh	UPAR	Synthesize and Characterize GaN nanowires and nanoparticles for photonic devices
18	Yusra Al Aldhaheri	UPAR	Molecular Mechanisms Underlying the Anti-breast Cancer Activity of *Haplophyllum tuberculatum*, Native Plant to UAE
19	Mabrouk Hassan	UPAR	Tracing the impact of deep mantle carbon cycles on climate change using the geochemical and isotopic characteristics of UAE carbonatites
20	Adnan Younis	Start-up	Bridging the Gap: Integrating Solar Energy Harvesting and Storage devices for Sustainable Clean Energy Solutions
21	Edvin Idrisov	Start-up	Thermal and electronic transport in composite quantum Hall systems
22	Ranjit Vijayan	AUA	Antimicrobial peptides as potential antibiotic agents against methicillin-resistant Staphylococcus aureus
23	Mohammad Khasawneh	AUA	Chemo-free Phyto-photothermal therapy against skin cancer using common Emirati ayurvedic plants-based gold NPs
24	Iltaf Shah	AUA	Highly biomimetic scaffold for personalized nerve repair

25	Sameer Mirza	AUA	NAD kinase a potential therapeutic target in HER2 mediated oncogenesis
26	Sunil Mundra	AUA	Harnessing Mycorrhiza Cooperation in Mitigation of Climate-Changed-Induced Drought and Greenhouse Gas Emission
27	Amit Kumar	AUA	Blue carbon conservation: “mechanistic understanding of the formation, decomposition, and Microbial Influence on sedimentary organic matter in mangrove ecosystems (REMINDING)
28	Nayla Munawar	AUA	Fabrication of ‘Quercetin’ loaded Levan-based bio-aerogels as novel anti-biofilm agent against food-borne pathogenic bacteria for food
29	Salem Ben Said	AUA	Advances in Difference-Differential Operators and Fractional Calculus
30	Hasan Arman	AUA	Application of Geological Strength Index to Development of Bearing Capacity Chart for Carbonate Rocks: A Case of Al Ain city, Abu Dhabi Emirate
31	Muna Alfalasi	SDG	Enhancing UV Stability of Biodegradable Polymers Using Zinc-Sulfamethoxazole Complex for Sustainable Agricultural Applications
32	Synan AbuQamar	SDG	Enhancing Plant Resilience to Global Environmental Changes: The Role of Native Actinobacteria from UAE Soils
33	Mohammad Yusuf Fazale Haque	SDG	Sustainable Agriculture - Harnessing the potential of silicon dioxide nanoparticles primed seeds for salt tolerant Cucumber plants
34	Taoufik Ksiksi	SDG	Assessing the Potential of Calotropis based biochar and microalgae bacteria consortia as a Sustainable alternative for Arid Land Applications
35	Iltaf Shah	SDG	Enhancing Urban Agriculture and Climate Resilience through Antioxidant Profiling using LCMS to support plant the emirates initiative
36	Khaled El Tarabily	SDG	Improvement of Irrigation Water Use Efficiency and Yield Productivity of Vegetables in the UAE Utilizing Biogenic Selenium Nanoparticles Derived from Plant Growth-Promoting Bacteria

37	Mohamed Lotfy	SDG	Improving Agroecosystem Health and Plant Productivity via the Use of novel Alkalophilic Phosphate-Solubilizing Bacteria in the United Arab Emirates
38	Nail Ibrahim	SDG	Natural Products Extracts as Novel Tool against Invasive Herbs and Harmful Pests Emerging with Climate Change
39	Fatima Labeed	UAEU-UOS	Rewiring The Tumor Electrome: An Innovative Approach to Understanding, Treating and Preventing Cancer
40	Nayla Munawar	UAEU-NTU	Peptide Coacervates for Targeted Delivery Against HER2+ Breast Cancer
41	Zsolt Balogh	UAEU-NTU	Medical image processing with deep learning and algebra
42	Edvin Idrisov	SURE PLUS 2025	Spin noise in a periodically varying magnetic field
43	Muhammed Syam	SURE PLUS 2025	An accurate method for solving system of fractional Wave Equations with some applications
44	Mayank Gururani	SURE PLUS 2025	Elucidating the Metabolic and Physiological Responses of Tomato Plants to Combined Salt and Drought Stress Mediated by SiO? Nanoparticles and H?O?
45	Ushangi Goginava	SURE PLUS 2025	Dyadic Hardy Spaces and Cesaro Means of Walsh-Fourier series
46	Nail Ibrahim	SURE PLUS 2025	Functionalization in MOFs for Enhanced Carbon Dioxide Capture
47	Ziad Moussa	SURE PLUS 2025	Title of the Research Project: Development of synthetic methodologies to access 2-seleno-3-phenyl-4(3H)-quinazolinones and prepare mitochondrial division inhibitor-1 (seleno-Mdivi-1) for potential breast cancer treatment
48	Qasem Al Mdallal	SURE PLUS 2025	Mathematical analysis of ternary hybrid nanofluid with forced convection form a heat spinning cone
49	Khaled El Tarabily	SURE PLUS 2025	Sustainable Plant Disease Management: Utilizing Native UAE Beneficial Actinobacteria and their Silver Nanoparticles as Alternatives to Chemical Fungicides

50	Farrukh Mukhamedov	SURE PLUS 2025	Genetic algebras are associated by circle preserving maps.
51	Salem Ben Said	SURE PLUS 2025	Some analytic aspects of the fractional heat equation
52	Shaikha Alneyadi	SURE PLUS 2025	Engineering Smart Magnetic COF Membranes for Photodegradation and Removal of Microplastics from Water
53	Oliver Manlik	SURE PLUS 2025	Investigating the level and potential effect of heavy metal pollution on fish in the Arabian Gulf
54	Mohammad Khasawneh	SURE PLUS 2025	Discovery of novel natural products-based anticancer agents using common wild UAE-Calotropis procera
55	Ayham Zaitouny	SURE PLUS 2025	A Novel Mathematical Model for Swarm and Collaborative Robots
56	Mabrouk Hassan	SURE PLUS 2025	Geochemical, Mineralogical, and Economic Assessment of Magnesite Deposits in Masfout Area, United Arab Emirates
57	Mohamed Qenawy	SURE PLUS 2025	Design and Synthesis of Magnetic Ln-MOFs for Advanced Data Storage and Quantum Applications

APPENDIX 4

DEPARTMENTAL SEMINARS

Department of Biology

#	Title of the Seminar	Name of the Speaker	Affiliation	Date
1	Adipose-derived mesenchymal stem cells and obesity: Exploring the dynamic interplay of offense and defense	Dr. Suha Al-Naimi	University of Sharjah	23 Oct. 2024
2	Study of cell signaling by bioluminescence resonance energy transfer technique	Dr. Mohammed Akli AYOUB	Khalifa University	13 Nov. 2024
3	Current and Future Species Distribution: A case study from the Middle East and North Africa Region.	Dr. Remya Kalarikkal	UAEU	19 Nov. 2024
4	What can electrophysiology bring to cell analysis and its appeal for label-free cell sorting	Dr. Matthew Johnson	Khalifa University	25 Nov. 2024
5	Novel antibiotics and combinations as new weapons to fight antibiotic resistant bacteria	Dr. Farah Al Marzooq	UAEU	06 Feb. 2025
6	Bridging nitrogen and carbon biogeochemistry: pathways to healthy soils and climate solutions	Dr. Sajjad Raza	University of Nottingham, UK	10 Feb. 2025
7	Towards integrated diversity conservation planning: Stakeholder-informed, multi-taxa, and multi-facet prioritization for the future of Euro-Mediterranean forests	Dr. Juan Antonio Hernández-Agüero	University of Amsterdam, The Netherlands	17 Feb. 2025
8	Making sense of the “antisense” proteome: a quest for translation of novel proteins from reverse complements of annotated transcripts	Dr. Igor Kryvoruchko	UAEU	21 Apr. 2025
9	Gut-Food Nexus: Unravelling the Paradoxical Origin of Small- Molecule Cytokinins in Mammalian Systems	Dr. Muhammad Naseem	Zayed University, Abu Dhabi	30 Apr. 2025

Department of Chemistry

#	Title of the Seminar	Name of the Speaker	Affiliation	Date
1	Introduction to for JEOL NMR (Solution and Solid)/ Introduction for solid- state NMR	Dr. YusukeNishiyama	Riken-JEOL Collaboration Center Yokohama, Japan	10 Sept. 2024
2	Atmospheric Water generation- perspectives on performance and scalability	Prof. Ludovic (Ludo) F. Dumee	Khalifa university, Abu Dhabi	23 Sept. 2024
3	Interactive session on JoVE's Classroom Teaching, Training and Learning resources in collaboration of Department of Chemistry and UAEU Library	Mr. Albert El Zoghbi	MENA	03 Oct. 2024
4	Emerging trends in Nanofiber research	Dr. Vishnu Vijay Kumar (IITM-NUS)	NYU, Abu Dhabi	14 Nov. 2024
5	Highlights the structure-base design and synthesis of Novel iminopyrimidinone compounds, leading to the discovery of potent aspartyl protease inhibitors targeting key diseases.	Dr. Tanweer Khan	Atai Life Science, New York, U.S.A.	11 Dec. 2024
5	Discovery of YSR734: A Covalent HDAC Inhibitor with Cellular Activity in Acute Myeloid Leukemia and Duchenne Muscular Dystrophy	Dr. Yasir Raouf	UAEU	10 Feb. 2025
6	Dynamic Crystals and exploration of the mechanism	Prof. Durga	Senior Research	20 Mar. 2025
7	Photocatalysis harnesses light excitation to drive catalytic reactions, offering a promising solution to address global energy challenges.	Dr. Kaibo Zheng	Technical University of Denmark, Denmark	21 Apr. 2025
8	Microcavity mediated excitation dynamics of photosynthetic light harvesting complexes	Prof. Tõnu Pullerits	Lund University, Sweden	21 Apr. 2025

9	Material Innovation for Solar PV in The Middle East	Dr. Pavel Chábera	Technology Innovation institute, Abu Dhabi,	21 Apr. 2025
10	NMR super conducting magnet JEOL asiasupport	Jackson Youn Shi Kat	Singapore	25 Apr. 2025
11	Exploring Natural Products as promising Inhibitors for Dengue and Malaria	Dr. Choo	University of Malaya, Malaysia	8 May. 2025
12	Artificial Intelligence in Designing Novel Therapeutics	Dr. Yasir Raouf	UAEU	12 May. 2025

Department of Geosciences

#	Title of the Seminar	Name of the Speaker	Affiliation	Date
1	Applications of Engineering Geology in Tunnelling: United Arab Emirates and Saudi Arabia cases	Prof. Ali Mohamed Ali Abd-Allah	Ain Shams University, Egypt	26 Sept. 2024
2	Hydraulic modeling using TUFLOW and QGIS	Dr Firas Dr. Ismini	Arcadis Company-UK Aegaea company-UK	03 Nov. 2024
3	The Mirdita ophiolites, Albania: geochemical and petrological evidence for modification of depleted peridotites as result of refertilization processes and melt-rock reaction	Prof. Theodoros Ntaflos	Vienna University,	04 Nov. 2024
4	Propagating Subduction Initiation of the Caroline Plate at the Mussau Trench, north of New Guinea Island, southwestern Pacific Ocean	Prof. Chun Feng Li	Zhejiang University, China	04 Nov. 2024

5	Machine Learning and Physically- Based Model in Flood Risk Assessment: Advantages, Challenges and Perspectives	Prof. Mohamed Saber	Kyoto University, Japan	12 Nov. 2024
6	Applications for Physically Based Model for Flood Risk Assessment: Leveraging Remote Sensing Data for Hydrological Applications	Dr. Mohamed Saber	Kyoto University, Japan	12 Nov. 2024
8	Jurassic sedimentary dynamics and posterior structural evolution of the mid-internal ridge (the Djurdjura massif) Algeria	Ms. Louiza Yousnadj	University of Batna 2, Algeria	04 Apr. 2025
9	Radon in Hydrogeology: Applications in Groundwater Studies and Health Implications	Dr. Sukanya Srinivasa Raghavan	University of Kerala, India	16 Apr. 2025
10	Radioactivity in the Environment, Measurement Techniques and Applications	Prof. Xiaolin Hou Prof. Keliang Shi . Ms. Ayesha Al Shouq Dr. Elena Chamizo Dr. Alaa Ahmed	Chinese Academy of Sciences, Lanzhou University, China Lanzhou University, China. Federal Authority for Nuclear Regulation, UAE. National Accelerator Center (CAN) at the University of Sevilla, Spain. UAEU	17 Feb. 2025
11	A Multidisciplinary Living Lab for Improving Urban Resilience to Hydrometeorological Disasters: Linking Precipitation Physics, High-bandwidth Sensor Networks, and Data Sciences	Dr. Haonan Chen	Colorado State University, USA	8 May. 2025

Department of Mathematical Sciences

#	Title of the Seminar	Name of the Speaker	Affiliation	Date
1	AI-Based Robotics for Industrial Applications	Mohamad Bdiwi	Fraunhofer IWU Technical University of Chemnitz	14 Aug. 2024
2	Dispersionless Hirota system and hidden symmetries of heavenly equation	Andriy Panasyuk	Cardinal Wyszyński University, Poland	20 Sept 2024
3	Representation of Jacobi Jordan Algebras by Graph Theory	Amir Baklouti	Sfax University, Tunisia	01 Nov. 2024
4	Applications of complexity theory in industry and society	Michael Small	The University of Western Australia	20 Nov. 2024
5	Artificial intelligence and authentic insight	Michael Small	The University of Western Australia	22 Nov. 2024
6	N-tuple sum analogues for Ramanujan-type congruences	Mohamed Bachraoui	UAEU	4 Dec. 2024
7	p-adic Malcev-Neumann field	Wang Shanwen	Renmin University of China (RUC)	4 Dec. 2024
8	Maximum commutative subalgebras of a Grassmann algebra	Ho Hon Leung	UAEU	4 Dec. 2024
10	Unitary units in Group Rings	Victor Bovdi	UAEU	4 Dec. 2024
11	Homomorphic Encryption and Federated Learning	Zhang Yi	Renmin University of China (RUC)	4 Dec. 2024
12	A Generalization of NTRU Cryptosystem Based on Ideal Lattice	Tian Kun	Renmin University of China (RUC)	4 Dec. 2024

Department of Physics

#	Title of the Seminar	Name of the Speaker	Affiliation	Date
1	Solution-processed Functional Nanostructured Materials for Next Generation Non-volatile Memory Devices	Dr. Adnan Younis	UAEU	13 Nov. 2024
2	New Pearson AI Study Tool for General Physics Students	Mr. Fouad Ibrahim	Pearson Education, UK	27 Nov. 2024
3	Non-equilibrium bosonization approach and it's applications in mesoscopic physics	Dr. Edvin Idrisov	UAEU	25 Oct. 2024
4	Mastering the Art of Scientific Publication in High Impact Journals	Prof. Stefan Wuttke	UAEU	15 Nov. 2024
5	Battery research at Nazarbayev University	Prof. Zhumabay Bakenov	Nazarbayev University, Kazakhstan	9 Dec. 2024
6	The impact of the Simulations' prediction power on the Nanotechnology	Dr. Ali Khlaif Abdullah Al-Zu'bi	Australian University of Kuwait	14 Feb. 2025
7	Dust storms on Mars	Dr. Claus Gebhardt	UAEU	18 Apr. 2025
8	Genesis of massive black holes at Cosmic Dawn	Dr. Muhammad Abdul Latif	UAEU	21 May. 2025

COLLEGE OF SCIENCE
UNITED ARAB EMIRATES UNIVERSITY