

Chinese Students Camp at Khalifa University

January 22 - February 2, 2024 Abu Dhabi, UAE

Introduction

Khalifa University is honored to host the prestigious Student Camp in collaboration with esteemed institutions from China. This camp has been designed to provide Chinese students with an exceptional opportunity to engage themselves in the academic and cultural life of the United Arab Emirates. Scheduled to take place from January 22 to February 2, 2024, this camp promises an enriching experience filled with a diverse array of activities. These activities have been thoughtfully designed to seamlessly blend academic enrichment, cultural exploration, and invaluable industry exposure.

Program Objectives

1. Our program will offer a comprehensive academic curriculum designed to enhance the students' knowledge and skills in their chosen fields of study.
2. We will facilitate cultural immersion experiences, workshops, and interactions with local students to help our Chinese participants adapt and thrive in a new cultural environment.
3. We will organize networking activities that will allow our students to connect with industry professionals, fostering valuable connections for their future careers.

Student Engagement in Key Research Themes

At Khalifa University, we are committed to fostering innovation and excellence in various research areas. During this camp, students will have the unique opportunity to engage with the university's core research themes, which include Power, Energy & Fuels, Health, [Aero]space, Advanced Manufacturing, Advanced Materials, Robotics and Artificial Intelligence, and Information and Communication.

Our camp is designed to provide students with valuable insights and knowledge through a structured program. Here's what students can expect:

1. Through informative sessions led by esteemed professors, senior researchers, and engineers, students will gain a comprehensive understanding of each research theme.
2. Each theme will begin with a presentation by the relevant academic department, offering an overview of the subject matter and its significance.
3. Following the academic department presentations, students will have the privilege of hearing directly from the Research Center Director, who will explore into the cutting-edge research and initiatives being undertaken in their respective areas.
4. Students will have the opportunity to visit the research centers themselves. This hands-on experience will allow them to explore the facilities, interact with ongoing projects, and engage with researchers.

Program Agenda (Tentatively)

Arrival

Students will arrive at Abu Dhabi or Dubai International Airport. After arrival, they will proceed to their designated hotel for check-in, allowing them the opportunity to rest and prepare for the upcoming program.

Date	Time	Agenda Item		Speaker
Day 1 - Jan 22, 24 Monday	10:00 AM – 10:15 AM	Orientation and University Welcome		KU President
	10:15 AM – 10:45 AM	College of Engineering and Physical Sciences Overview		Dean or Associate Dean
	10:45 AM- 11:15 AM	College of Health and Life Sciences Overview		Dean or Associate Dean
	11:15 AM – 1:30 PM	Break		Dean or Associate Dean
	1:30 PM- 2:00 PM	College of Computing and Mathematical Sciences Overview		
	2:00 PM - 2:30 PM	KU Scholarship Presentation		KU Enrolment Office
	2:30 PM - 3:00 PM	Campus Tour		Khalifa University Staff
	3:00 PM - 3:30 PM	Body Worlds Museum		
Day 2 - Jan 23, 2024 Tuesday	9:30 AM- 11:30 AM	Theme 1: Power	Theme 2: Water & Environment	Department Chair Research Center Director Research Center Director
		Academic Department Presentation	Academic Department Presentation	
		Research Center Presentation: Power	Research Center Presentation: Water & Environment	
	11:30 AM - 1:30 PM	Break	Break	
	1:30 PM- 3:30 PM	Visit to Research Centers: Power	Visit to Research Centers: Water & Environment	
Q&A and Discussion: Power		Q&A and Discussion: Water & Environment		
Day 3 - Jan 24, 2024 Wednesday	9:30 AM- 11:30 AM	Theme 3: Energy & Fuels	Theme 4: Health	
		Academic Department Presentation	Academic Department Presentation	
		Research Center Presentation: Energy & Fuels	Research Center Presentation: Health	
	11:30 AM - 1:30 PM	Break	Break	
	1:30 PM- 3:30 PM	Visit to Research Centers: Energy & Fuels	Visit to Research Centers: Health	
		Q&A and Discussion: Energy & Fuels	Q&A and Discussion: Health	
Day 4 - Jan 25, 2024 Thursday	9:30 AM- 11:30 AM	Theme 5: [Aero]Space	Theme 6: Advanced Manufacturing	
		Academic Department Presentation	Academic Department Presentation	

		Research Center Presentation: [Aero]space	Research Center Presentation: Advanced Manufacturing	
	11:30 AM - 1:30 PM	Break	Break	
	1:30 PM- 3:30 PM	Visit to Research Centers: [Aero]space	Visit to Research Centers: Advanced Manufacturing	
		Q&A and Discussion: [Aero]space	Q&A and Discussion: Advanced Manufacturing	
Day 5 - Jan 26, 2024 Friday	10:00 AM - 12:00 PM	Visit to ADNOC Headquarters (AI and Digitalization for Energy industry)		ADNOC Representatives
Day 6 – Jan 29, 2024 Monday	9:30 AM- 11:30 AM	Theme 7: Advanced Materials	Theme 8: Information and Communication	Department Chair Research Center Director Research Center Director
		Academic Department Presentation	Academic Department Presentation	
		Research Center Presentation: Advanced Materials	Research Center Presentation: Information and Communication	
	11:30 AM - 1:30 PM	Break	Break	
	1:30 PM- 3:30 PM	Visit to Research Centers: Advanced Materials	Visit to Research Centers: Information and Communication	
Q&A and Discussion: Advanced Materials		Q&A and Discussion: Information and Communication		
Day 7 - Jan 30, 2024 Tuesday	9:30 AM- 11:30 AM	Theme 9: Robotics and Artificial Intelligence		
		Academic Department Presentation		
		Research Center Presentation: Robotics and AI		
	11:30 AM - 1:30 PM	Break		
	1:30 PM- 3:30 PM	Visit to Research Centers: Robotics and AI		
Q&A and Discussion: Robotics and AI				
Day 8 – Jan 31, 2024 Wednesday	9:30 AM- 3:30 AM	Enriching Sessions for Personal and Academic Development		Center for Teaching and Learning
Day 9 – Feb 1, 2024 Thursday	9:30 AM- 11:30 AM	Chinese University Exhibition		Student Exchange Office
	11:30 AM - 1:30 PM	Break		
	1:30 PM- 3:30 PM	Closing Day and Farewell		Senior VP for Academic Affairs
Day 10 – Feb 2, 2024 Friday	10:00 AM - 12:00 PM	Visit to Chinese Companies in Abu Dhabi		

Day 1

Orientation and University Welcome

The camp officially begins with a morning orientation session at Khalifa University's main campus. During this session, participants will receive a welcome remark from Khalifa University's Senior Vice President of Academic and Student Services. The dean of graduate studies will introduce them to the university's academic programs. Furthermore, they will be provided with insights into the College of Engineering and Physical Sciences, College of Computing and Mathematical Sciences, College of Health and Life Sciences by their respective associate deans. The afternoon session academic session that offers participants a comprehensive understanding of Khalifa University's academic programs and will feature an attractive campus tour that includes the well-known Body Worlds Museum.

Day 2

Power

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Emirates Nuclear Technology Center (ENTC)
 - Sustainable Energy Virtual Research Institute
 - Advanced Power and Energy Center (APEC)

Water & Environment

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:

Center for Membranes & Advanced Water Technology (CMAT)

Day 3

Energy & Fuels

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Research & Innovation Center on CO₂ & Hydrogen (RICH)

Health

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Center for Biotechnology (BTC)
 - Healthcare Engineering Innovation Group

Day 4

[Aero]Space

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Space Technology and Innovation Center (KUSTIC)
 - Space and Planetary Sciences Group

Advanced Manufacturing

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Advanced Research & Innovation Center (ARIC)
 - Advanced Digital & Additive Manufacturing Group (ADMA)

Day 5

Visit ADNOC Headquarters

There will be a visit to the Abu Dhabi National Oil Company (ADNOC) Headquarters, focusing on AI and digitalization for energy in the industry. This visit will offer participants a unique opportunity to observe the practical application of technology in a real-world context.

Day 6

Advanced Materials

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Research & Innovation Center for Graphene & 2D Materials (RIC 2D)
 - Center for Catalysis and Separations (CeCaS)
 - Advanced Materials Chemistry Center (AMCC)

Information and Communication: 5

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Emirates ICT Innovation Center (EBTIC)
 - 6G Research Center (6GRC)

Day 7

Robotics and Artificial Intelligence:

- Academic Department Presentation
- Research Center Presentation
- Visit the Research Centers:
 - Center for Cyber-Physical Systems (C2PS)
 - System-on-Chip Lab
 - KU Center for Autonomous Robotic Systems (KUCARS)

Day 8

Enriching Sessions for Personal and Academic Development

MBTI/Career Path (Discover Your Interests): Students will gain insights into their personality types and how they relate to various career options. This session aims to help students make informed decisions about their future.

Day 9

Chinese University Exhibition

Booth for each university showcase their universities for exchange organized by student exchange office.

Closing Day and Farewell

The camp will conclude with a day of closing remarks and certificate distribution at Khalifa University's main campus.

Post-Program Exploration

After the program with Khalifa University, students are encouraged to visit these iconic places in Abu Dhabi city. This post-program exploration will provide them with a more in-depth cultural experience and an opportunity to connect with the history and heritage of the United Arab Emirates. They can visit iconic places such as the Sheikh Zayed Mosque, the Abu Dhabi Presidential Palace, and the Louvre Museum.

Appendix

Brief Introduction to Research Centers

1. Emirates Nuclear Technology Center (ENTC) Director Prof. Francois Foulon

ENTC conducts research in nuclear technology to support the UAE's nuclear power program and ensure safe, clean, and efficient nuclear energy. It focuses on areas such as nuclear safety, materials, chemistry, and radiation safety.

2. Sustainable Energy Virtual Research Institute – Director Prof. Samuel Mao

This institute is dedicated to transforming biotechnology research in Abu Dhabi to enhance healthcare outcomes. It collaborates with Khalifa University to advance healthcare innovation and research.

3. Advanced Power and Energy Center (APEC) – Director Prof. Ehab El-Saadany

APEC aims to develop intellectual and human capital for innovative energy solutions, including renewable energy integration, AI applications in power systems, and smart grids.

4. Research & Innovation Center on CO₂ & Hydrogen (RICH) – Director Prof. Lourdes Vega

RICH focuses on addressing energy and environmental challenges, particularly carbon capture and hydrogen production. It conducts research on new materials and processes for CO₂ capture and utilization, as well as H₂ production.

5. Center for Membranes & Advanced Water Technology (CMAT) – Director Prof. Shadi Hassan

CMAT tackles water scarcity challenges by developing sustainable and efficient membrane technologies. It aims to provide innovative solutions to water-related issues in the UAE and the GCC.

6. Center for Biotechnology (BTC) – Director Prof. Habiba Al Safar

BTC conducts research in biotechnology to promote health and well-being. It focuses on genetic diversity, clinical subsets, and demographic categories to uncover new knowledge in healthcare.

7. Healthcare Engineering Innovation Group – Director Prof. Mohammed Sagier

This group focuses on healthcare innovation and technology. It works to develop medical devices and technologies to address health challenges in the UAE, particularly cardiovascular diseases.

8. Space Technology and Innovation Center (KUSTIC) – Director Prof. Sean Swei

KUSTIC is dedicated to advancing space technology in the UAE. It trains students in satellite design and conducts research in space science and applications, supporting the UAE's space ambitions.

9. Space & Planetary Sciences Group – Director Prof. Mohammed Ramy Elmaarry

This group is part of KUSTIC and focuses on space science and technology initiatives. It plays a role in supporting the development of satellite technologies and space research in the UAE.

10. Advanced Research & Innovation Center (ARIC) – Director Prof. Yahya Zweiri

ARIC collaborates with industry partners to conduct research in advanced manufacturing. It offers facilities and expertise to test and develop new technologies in various industries.

11. Advanced Digital & Additive Manufacturing Group (ADMA) – Director Prof. Rashid Abu Al Rub

ADMA focuses on additive manufacturing (3D printing) and Industry 4.0 technologies. It provides a platform for research, development, and technology transfer in the field of advanced manufacturing.

12. Research & Innovation Center for Graphene & 2D Materials (RIC 2D) – Director Prof. Hassan Arafat

RIC 2D is dedicated to advancing research in graphene and other 2D materials. It aims to develop new materials and technologies with applications in various industries.

13. Center for Catalysis and Separations (CeCaS) – Director Prof. Kyriaki Polychronopoulou

CeCaS conducts research in catalysis and separations to address emerging challenges in these areas. It supports local and regional stakeholders in the water sector through capacity building and technology transfer.

14. Advanced Materials Chemistry Center (AMCC) – Director Prof. Ahsan Ul Haq Qurashi

AMCC focuses on advancing research in materials chemistry. It develops new materials and methods, conducts characterization, and explores applications in various fields.

15. Center for Cyber-Physical Systems (C2PS) – Director Prof. Ernesto Damiani

C2PS conducts research in Cyber-Physical Systems (CPS) and IoT technologies. It aims to deliver innovative CPS solutions, ensure security and privacy, and engage in industrial collaborations.

16. System-on-Chip Lab – Director Prof. Baker Mohammad

The System-on-Chip Lab specializes in electronic circuit and system design. It provides students with hands-on skills in electronic circuits design and conducts research in electronic systems.

17. KU Center for Autonomous Robotic Systems (KUCARS) – Director Prof. Lakmal Seneviratne

KUCARS focuses on robotics and autonomous systems research. It conducts research in various robotics applications and provides students with opportunities to work on exciting projects.

18. Emirates ICT Innovation Center (EBTIC) – Director Prof. Nawaf I. Almoosa

EBTIC is an ICT research and innovation center that supports the development of the Digital Networked Economy in the UAE and beyond. It conducts research in intelligent systems and Next Generation Networks (NGNs).

19. 6G Research Center (6GRC) – Director Prof. Merouane Debbah

The 6G Research Center is dedicated to advancing research in 6G technologies. It explores the potential of future wireless communication technologies beyond 5G.