



$$P = (E/c, \mathbf{p})$$

$$K = (\omega/c, \mathbf{k})$$

$$E = \hbar\omega$$

$$\mathbf{p} = \hbar\mathbf{k}$$

$$c$$

$$\hat{H} = \sum_{n=1}^N \frac{\hat{p}_n^2}{2m_n} + V(x_1, x_2, \dots, x_N)$$

$$p_r^2 + r^2 p_\phi^2 = p_r^2 + L^2/r^2 = (E + Ze^2/r)^2 - (mc^2)^2/c^2$$

$$(E - q\phi)^2 - (pc - qA)^2 = (mc^2)^2$$

BSc in

# APPLIED MATHEMATICS, STATISTICS & DATA SCIENCE

## About the program

The program places a strong emphasis on cultivating the intellectual skills necessary for success in mathematics, statistics, and data science. We focus on developing students' ability to think creatively, rigorously, and rationally, ensuring they are well-prepared to tackle complex challenges in a variety of professional fields. Our graduates are equipped not only with technical expertise but also with the ability to adapt to new challenges.

Students can benefit by joining the Mathematics Club, participating in competitions like Musabaqat Mathematics, and weekly seminars, and activities to a holistic education, and develop both academically and personally.

## Tracks

The program spans Mathematics, Statistics and Data Science.

- Mathematics of Financial Data and Decisions: Mathematics and construct mathematical models are for solving financial problems by combining tools from statistics, probability, and stochastic processes and merging them with economic theory.
- Mathematics of Life Sciences: Construct mathematical models to examine and characterize the structure, development, and behavior of biological systems.

## Graduates of the program will

Be well-prepared to embark on successful careers in various fields such as Artificial Intelligence: Application of mathematical and statistical techniques to AI and machine learning (ML).

# WHY KHALIFA UNIVERSITY?



## GLOBAL RECOGNITION

Khalifa University stands out as the leading institution in the UAE, with 90 of its faculty members acknowledged among the world's top 2% most-cited scientists in Stanford University's prestigious 2023 listing.



## CONSISTENTLY HIGH-RANKED

Ranked top in the UAE, 2nd in the Arab world, and ranked 27th in Asia in Sustainability; and among top 250 in the world



## GLOBALLY-ACCREDITED ACADEMIC PROGRAMS

Khalifa University is fully licensed and all its programs are accredited by the Commission for Academic Accreditation (CAA) of the UAE Ministry of Education.



## UNIQUE AND DIVERSE RESEARCH

Including energy, water and environment, healthcare, aerospace, cybersecurity, Intelligent Systems, advanced materials, and fundamental science..



## WORLD'S SAFEST CITY

Abu Dhabi, the largest emirate in the UAE, remains the world's safest city for the 8th consecutive year in 2024. Experience safety and a cosmopolitan lifestyle that enhances your learning experience, reinforcing its status as a safe and secure place to live, work, study, and invest.



## EXPERT GUIDANCE

We are committed to empowering students for success, fostering collaboration in a diverse community led by world-class faculty. Experience personalized guidance and a conducive learning environment with an impressive 11:6 student-to-faculty ratio, ensuring your path to success is well-supported and rewarding.



## DYNAMIC CAREER OPPORTUNITIES

Attractive graduate employment opportunities across a wide spectrum of industries with the opportunity to present research projects at major international conferences.