

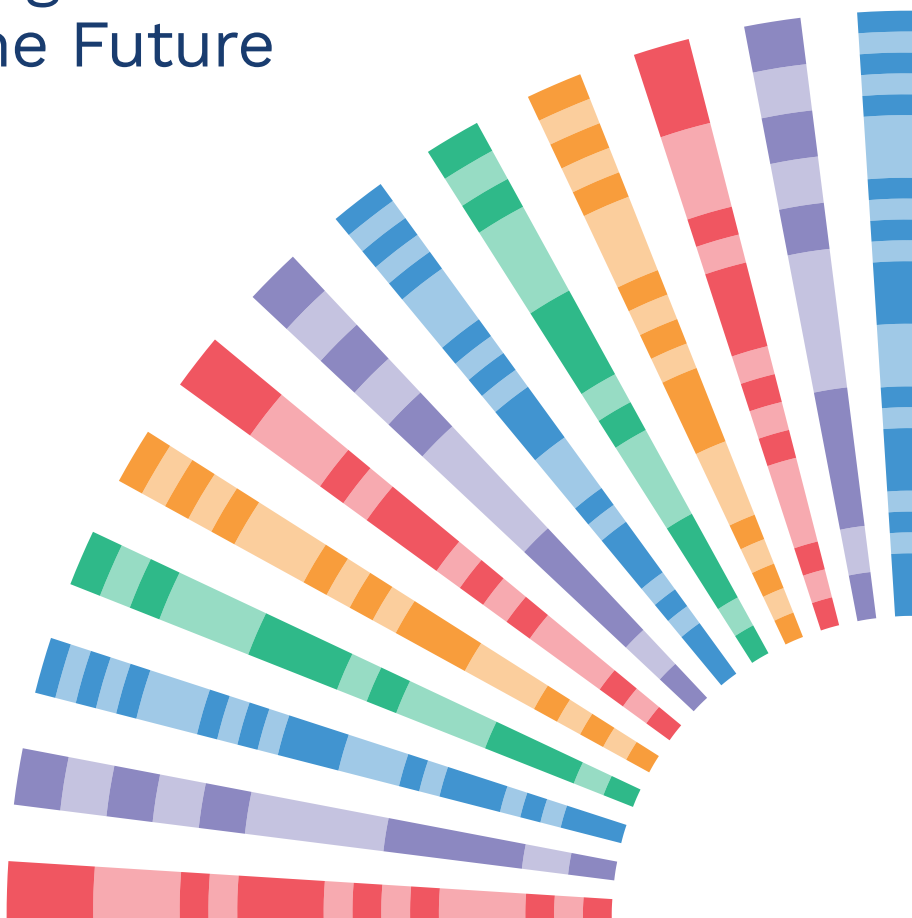


SCHOOL OF
**COMPUTING &
DATA SCIENCE**
The University of Hong Kong

2025/26

School of Computing and Data Science

Empowering
Changemakers
of the Future



Message from the Director



Professor Yi MA

Professor, Chair of Artificial Intelligence
Director, School of Computing and Data Science
Director, HKU Musketeers Foundation Institute of Data Science

The establishment of the School of Computing and Data Science (CDS) at The University of Hong Kong represents a significant step forward in advancing education and research across several interrelated disciplines, including computing, artificial intelligence (AI), statistical decision sciences, fintech, and actuarial science.

Formally established on 1 July 2024, CDS seeks to consolidate the strengths of the former Department of Computer Science and Department of Statistics and Actuarial Science and to facilitate a truly integrated academic programme for these fields.

The School of CDS offers eight undergraduate programmes in total. Students will have access to an enriched curriculum designed to empower them to excel in their chosen fields. Our commitment to flexibility and interdisciplinary learning will provide students with the tools necessary to thrive in an ever-evolving global landscape.

I invite you to embrace the exciting opportunities that lie ahead as we work together diligently to make significant contributions to the fields of computing and data science. I hope to welcome you to our School in the near future.

Facts and figures

Academic programmes

8

Undergraduate programmes

5

Taught postgraduate programmes

2

Research postgraduate programmes

Faculty, researchers, and staff*

65+

Professoriate and teaching staff

30+

Appointed researchers (including postdoctoral fellows)

280+

Teaching assistants (including PhD students)

*Data as of August 2024

International rankings

No. 25

in QS World University Rankings by Subject 2024: Data Science and Artificial Intelligence

No. 50

in QS World University Rankings by Subject 2024: Statistics and Operational Research

No. 52

in QS World University Rankings by Subject 2024: Computer Science and Information Systems

No. 53

in Times Higher Education World University Rankings 2024 by Subject: Computer Science

6999

Computing and Data Science

Bachelor of Engineering in Computer Science

BEng(CompSc)

Bachelor of Engineering in Artificial Intelligence and Data Science

BEng(AI&DataSc)

BEng(CompSc) and BEng(AI&DataSc) are professional degree programmes* which provide students with a solid foundation to excel in the rapidly evolving fields of computing, AI, data science, and other transformative technologies. The comprehensive curricula prepare students to be leaders in their fields, driving innovation and shaping the future technology.

Students admitted to Computing and Data Science (programme code: 6999) are free to choose (i.e., no quota limit applies) either of the aforesaid programmes. Students shall make a preliminary choice as an indication of their preferences; and they may freely choose the final programme by the end of their first year.

The BEng(CompSc) programme gives students a thorough coverage of core areas in computer science and its applications. The programme covers a wide range of topics, including programming, algorithms, data structures, software engineering, computing infrastructures, and AI technologies. This programme has been accredited by The Hong Kong Institution of Engineers.

The BEng(AI&DataSc) programme is designed to equip students with training in AI and data-driven computing technologies. It covers topics such as programming, data modelling, big data systems, AI and data ethics, AI technologies, and applications. Students will have the opportunity to build specialist knowledge for careers in AI and data science.

Graduates' career prospects

Graduates of both the BEng(CompSc) and BEng(AI&DataSc) programmes will be at the forefront of driving innovation and making significant contributions to the development of cutting-edge solutions that leverage computing, AI, and data science technologies. They will be well-positioned to take up key roles such as machine learning engineers, software developers, data analysts/engineers, AI consultants, cybersecurity specialists, and more, in a wide range of industries.

Moreover, our programmes provide a strong foundation for students who aspire to pursue postgraduate studies in the field.

BEng(CompSc)

Many of our graduates go on to become IT professionals in different sectors, including banking and finance, government, education, IT and telecommunications. Some graduates also started their own business as entrepreneurs.

BEng(AI&DataSc)

Graduates of this programme will enjoy new and exciting careers in fast-growing job positions like data engineer/architect, data scientist, data analyst, machine learning engineer, big data engineer, business analyst, and information security analyst.

*New programmes: subject to approval of the University

Statistical Decision Sciences

Bachelor of Science in Decision Analytics BSc(DA)

Bachelor of Science in Risk Management BSc(RM)

Bachelor of Science in Statistics BSc(ST)

Humans form opinions and make decisions every day, often amid a world of uncertainties. Statistical Decision Sciences provide a scientific framework and reasoning toolkit for humans to make sense of real-life observations, whether in the form of small or big data, in their endeavour to live and think wise. It aims to provide comprehensive training to students in the area of quantitative analysis and statistical modelling, with an emphasis on both theory and practice, equipping students to master problem solving skills and data science techniques. Students admitted to Statistical Decision Sciences (programme code: 6779) can freely choose one of the three specialised degree programmes[^] in Decision Analytics, Risk Management, and Statistics, by the end of their first year.

Key features of the programmes:

Programmes	Key features	Knowledge landscape
BSc(DA)	<ul style="list-style-type: none"> Accreditation by the Royal Statistical Society (RSS)* 	<ul style="list-style-type: none"> Statistically guided AI techniques Statistical concepts Computational skills in data analytics
BSc(RM)	<ul style="list-style-type: none"> Accreditation by the Royal Statistical Society (RSS)* 	<ul style="list-style-type: none"> Quantitative analytical skills Risk management concepts and methods Modern exposure in risk analysis
BSc(ST)	<ul style="list-style-type: none"> Accreditation by the Royal Statistical Society (RSS) 	<ul style="list-style-type: none"> Statistical concepts Applied statistical methodologies Mathematical, analytical and computational skills

Graduates' career prospects

Our graduates readily find employment in various sectors, including the government, banking, finance, risk management, insurance, IT, marketing research, healthcare, hospitals, environmental protection, scientific research, academia and other related sectors, in which statistical and analytical expertise is needed due to the data-driven environment nowadays. They often play important roles in large-scale, multidisciplinary projects involving data analytics, providing guidance on all aspects of data collection and producing objective findings. Our graduates are also sought after by top graduate schools and research firms worldwide.

Graduates from the Decision Analytics programme can go on a career path as a data scientist or pursue further studies in statistics or computer science. Their career prospects are not limited to the field of data analytics but also cover strategic planning, policy making and others.

The majority of our Risk Management graduates works in the financial industry with further professional qualifications, and in senior management positions after gaining years of experiences in risk analysis and training in investment, banking and financial institutions.

The statistical skills acquired by our Statistics graduates empower them to play a crucial role in many job positions that require a quantitative mindset and analytical abilities. Some of our graduates work as statisticians and research managers in the public sector, as well as statistical analysts and business intelligence associates in the commercial sector.

[^]New programmes: subject to approval of the University

*Students are required to pass specific courses in the programme





6224

Bachelor of Arts and Sciences in Applied Artificial Intelligence

BASc(AppliedAI)

The BASc(AppliedAI) (programme code: 6224) emphasises the intellectual underpinning of AI applications in diverse areas. It is believed that AI as an educational endeavour will benefit many areas central to our everyday life and motivate interdisciplinary research.

Unique Programme Features

-  **New option for elite students**
Provides formal academic training to elite students who wish to join the AI profession, in addition to the newly designed BASc Core Courses
-  **Interdisciplinary training**
Facilitates a coordinated approach to teaching and learning across different disciplines with combined efforts of the Faculties of Science, Engineering, Social Sciences and Architecture
-  **Highlights AI applications in diverse areas**
Equips students with the intellectual capacity essential to tackling new challenges through problem-based learning
-  **Career prospects**
Connects the exploding demand of the AI market in different areas and provides students with internship and mentorship experiences

The programme features five concentrations



AI Technology



AI in Business and Finance



AI in Medicine



AI in Smart City



AI in Neurocognitive Science

Graduates' career prospects

Having an expertise in AI will give you a competitive advantage in job markets locally and abroad. Our graduates have the potential to become a vital asset in any organisation in need of intelligent strategies, and many have gone on to pursue careers in science and technology, environmental protection, medical informatics, health care, business, banking, finance, urban development, and neurocognitive science, among others.

6248

Bachelor of Arts and Sciences in Financial Technology

BASc(FinTech)

Financial Technology (FinTech) refers to the application of Information and Communication Technology (ICT) in the field of financial services. It is a rapidly emerging inter-disciplinary area with very high impact on the economy of every society.

The BASc(FinTech) (programme code: 6248) is jointly offered by the School of Computing and Data Science and the Business School. The programme aims to nurture financial technologists and entrepreneurs with essential knowledge in both finance and technology for taking up a leading role in innovation and applications of FinTech. Being an interdisciplinary effort, the programme combines subjects on computing, finance, and policies and regulations to give students a thorough grounding in the FinTech discipline.

The programme consists of foundation courses in mathematics, statistics, finance, computing, and law, as well as topics in FinTech, Arts and Social Sciences.

Programme Highlights



Interdisciplinary Knowledge and Skills



Enrichment and Research Opportunities offered by HKU-SCF FinTech Academy



FinTech Focus with Essential Legal Studies



Scholarships in FinTech from HK\$50,000 up to HK\$200,000

FinTech-related Subjects



Artificial Intelligence and Machine Learning



E-payment and Crypto-Currency



Big Data and Data Mining



Mathematical Finance



Cyber Security



NLP and Text Analytics in Finance



Distributed Ledger and Blockchain Technology

Graduates' career prospects

The majority of our graduates work in the finance sector, and most have become FinTech professionals and leaders in the industry. Some graduates can launch their own businesses as entrepreneurs.

6729

Bachelor of Science in Actuarial Science

BSc(ActuarSc)

The BSc(ActuarSc) (programme code: 6729) is designed to equip students with a solid background in actuarial science, and enable them to develop the confidence and analytical skills needed to define and tackle problems in actuarial science and related fields.

Modern actuarial training requires multidisciplinary knowledge in probability, statistics, data science, economics, investment, finance, law, taxation and accounting. The BSc(ActuarSc) curriculum reflects this requirement by incorporating various interdisciplinary courses into the basic yet comprehensive actuarial training. Students should be able to evaluate and measure various kinds of risk using effective quantitative methods, and become proficient in formulating and communicating practicable business strategies with professionalism as well as accuracy.

Becoming an Actuary

- ☀ The BSc(ActuarSc) programme is the **ONLY** programme in Hong Kong which is accredited by the Institute and Faculty of Actuaries (IFoA) in the UK.
- ☀ It has exemption arrangements for several professional examinations with the IFoA and the Society of Actuaries.
- ☀ It has obtained Validation by Educational Experience (VEE) course approval from the Casualty Actuarial Society, the Society of Actuaries and the Canadian Institute of Actuaries in North America.

Graduates' career prospects

Given Hong Kong's booming insurance industry and the rapid development of the mainland China market, actuaries enjoy very attractive career prospects. Recent graduates hold positions in major insurance and reinsurance companies, actuarial consulting firms, and investment banks such as AIA, AXA Insurance, BOC Group Life Assurance, HSBC Life, Manulife, Sun Life Financial, Prudential, Willis Towers Watson, General Re, Reinsurance Group of America, JP Morgan, Standard Chartered, Ageas Insurance, Ernst and Young, Mercer, Goldman Sachs, Morgan Stanley, Deloitte Touche Tohmatsu and many others.

Some of our graduates have also pursued postgraduate studies in world-renowned universities.



School facilities

CDS recognises that advanced facilities are essential for cultivating a dynamic learning environment that empowers students.

The integration of cutting-edge technology and specialised workspaces allows for hands-on learning and real-world application, fostering a deeper understanding of theoretical principles. In this environment, students are encouraged to explore, innovate, and connect with peers, enhancing their ability to engage with complex concepts, experiment with innovative ideas, and collaborate effectively.

Our commitment to creating an enriching educational landscape ensures that students are well-prepared for the demands of their future careers and professional journey.

Our facilities include:

- ☀️ Dedicated exclusive computing and statistical computer labs
- ☀️ Teaching labs
- ☀️ Research labs
- ☀️ Departmental library
- ☀️ Collaborative student areas



Student experience

Internship Programme

There is no better training than obtaining solid hands-on experience in the real workplace. Our Internship Programme serves precisely this purpose and assists students by advertising part-time, summer, temporary and full-time internship positions, sending the CVs of interested students to employers, and arranging interviews for shortlisted students. Our alumni may wish to know that they will still be eligible to use the School's Internship/Graduate Job Application System after graduation.

International exchange and experiential learning

We encourage students to engage in international exchange programmes and experiential learning so they can broaden their horizons, enrich their learning, and network globally. Numerous overseas study possibilities are available to our students through the University's partnerships with institutions across the world.

Our School also provides international experiential learning programmes with our exchange partner institutions so that students can experience both the academic and cultural environments overseas.

Alumni Mentorship Scheme

The alumni mentorship scheme provides two-way communication between mentors and mentees. Through regular gatherings and mutual sharing, mentees can learn from their mentors' life experience and, at the same time, better understand the employment situation and their career prospects. In return, mentors receive up-to-date information on the current student population, student societies, the School and the University at large. Mentors also enjoy opportunities to become acquainted with their counterparts working in similar fields.

What our students and alumni say

During my internship as a data scientist at AXA, I gained invaluable hands-on experience, including building dashboards using PySpark and Power BI as well as comparing on-premises and cloud data using SQL. This experience has solidified my aspiration to become a global specialist in machine learning or data engineering.

Seunghun LEE

BSc graduate (Major in Decision Analytics)
Data Scientist Intern at AXA

HKU's strong connections with leading financial institutions provided me with invaluable networking opportunities and practical training. The programme's compatibility with professional exams such as the FRM and CFA further enhances career mobility and enables graduates to confidently navigate the dynamic risk environment of today.

Holly KAM Ho Yee

BSc graduate (Major in Risk Management)
Analyst in an American investment bank

During my undergraduate studies, I was encouraged to explore my professional interests through valuable research opportunities and work connections. I served as a biostatistics assistant for data and regression analysis in a genome research lab and interned at a local insurance company, ultimately choosing actuarial science as my career path.

Julie LU Siyao

BSc graduate (Major in Statistics)

This programme was a transforming experience that gave me a solid foundation in AI and machine learning, allowing me to develop advanced quantitative strategies and data analytics abilities. Participating in the AlgoGene Algo Trading Challenge helped me improve my practical skills and gain confidence in real-world applications.

Owen WONG Ngo Yin

BASc(AppliedAI) graduate
Quantitative Research Analyst at eFusion Capital Limited

The FinTech industry is enormous, and ongoing development and evolution are expected. This programme not only provides a strong balance of essential technical and non-technical courses to enable us succeed in such a rapidly changing world, but it also offers a wide range of course options. This allows us to explore different FinTech careers we are interested in.

Winky LEONG

BASc(FinTech) graduate

This programme has been vital in preparing me to excel in professional actuarial exams and the workplace. Its rigorous curriculum laid a firm foundation in core subjects and gave essential practical experience through internships and international exchanges. This comprehensive education has given me the essential tools to succeed in my future actuarial career.

Oscar GUSAWIR

BSc(ActuarSc) graduate

JUPAS Admission Requirements

Programme	English Language	Chinese Language	Mathematics	Citizenship and Social Development	Elective Subject: Category A subjects and Extended Module 1 or 2 in Mathematics (M1/M2)
6224 Bachelor of Arts and Sciences in Applied Artificial Intelligence 文理學士(應用人工智能) BASc(AppliedAI)	4 [#]	3	4	Attained	Level 4 in M1/M2 Level 3 in 1 subject
6248 Bachelor of Arts and Sciences in Financial Technology 文理學士(金融科技) BASc(FinTech)	4 [#]	3	3	Attained	Level 3 in 2 subjects*
6729 Bachelor of Science in Actuarial Science 理學士(精算學) BSc(ActuarSc)	3	3	4	Attained	Level 4 in M1/M2 Level 3 in 1 subject
6779 Statistical Decision Sciences 統計決策科學	3	3	4	Attained	Level 3 in 2 subjects
6999 Computing and Data Science 計算與數據科學	3	3	3	Attained	Level 3 in 2 subjects [^]

[#] Candidates with level 4 in English Language, if admitted, will be required to take 6 additional credits in Core University English to complete their degree studies

* This may include Category C Subject

[^] Level 3 or above in one of the following subjects: Biology, Chemistry, Physics, Economics, or Information and Communication Technology;
Level 3 or above in Mathematics Extended Part (Module 1 or 2) is preferred

For more information, visit

 cds.hku.hk



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