SCHOOL OF COMPUTING & DATA SCIENCE
The University of Hong Kong

Statistics & Actuarial Science 統計及精算學系

Bachelor of Science in Actuarial Science

BSc(ActuarSc)

精算學理學士

Bachelor of Science in Actuarial Science

BSc(ActuarSc)

History

In 1993, the then Department of Statistics proposed a new BSc degree in Actuarial Science, and was subsequently renamed the Department of Statistics and Actuarial Science in 1998. The University and Polytechnic Grants Committee (UPGC), the predecessor of the University Grants Committee (UGC), strongly supported the proposed degree, which was regarded as filling an inexplicably vacant niche in Hong Kong higher education. In 1994, 20 new student places were assigned to what was now the first actuarial science programme in Hong Kong. Since the programme's launch, the Department has admitted students with excellent public examination results every year. In light of the programme's success in terms of student quality and job prospects, the Department proposed its expansion for the next triennium in 1996, and the University approved an increase in student places to 34 commencing September 1998. The Department's name change in November 1998 when it became the Department of Statistics and Actuarial Science, is a sign of the Actuarial Science programme's importance.

Over the years, the programme continues to admit top students through the JUPAS scheme, and it has attracted many non-JUPAS students and scholarship holders from top universities in mainland China. It is also noteworthy that the programme had attracted many Form 6 students through the Early Admission Scheme in the past (before HKDSE replaced HKCEE and HKALE). The enrollment of first-year Actuarial Science students in 2021 totalled 80 in the four-year programme. The HKU Actuarial Science programme continues to rank amongst the top tier of quantitative undergraduate programmes in Hong Kong in terms of average JUPAS admission quality since 1996.

Programme Aims and Features

The HKU Bachelor of Science in Actuarial Science programme [BSc(ActuarSc)](programme code: 6729) is the only programme in Hong Kong accredited by the UK's Institute and Faculty of Actuaries. It provides formal academic and professional training to students who wish to join the actuarial profession. Although actuarial science is a separate discipline with its own area of knowledge, modern actuarial training requires multidisciplinary knowledge in probability, statistics, data science, economics, investment, finance, law, taxation and accounting. The Actuarial Science curriculum reflects this requirement by incorporating various interdisciplinary courses into the basic yet comprehensive actuarial training.

The programme 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. 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.

Meanwhile, the Actuarial Science programme is also specifically designed to provide adequate knowledge for students to sit for the early professional examinations organized by international actuarial organisations, thus allowing them to successfully join the actuarial profession with internationally-recognised qualifications upon graduation. In addition, the programme provides sufficient academic training to allow students to pursue postgraduate studies in actuarial science or related areas should they wish to.

What is an Actuary

What is an Actuary?

An actuary is a professional who deals with the application of probability and statistical theories to problems in insurance, investment, pensions, and financial risk management. The majority of actuaries work for life, health and property/casualty insurance companies, which heavily rely on actuaries' judgment to ensure their financial security. Other actuaries work for actuarial consulting firms, offering their expertise on financial services, health care, pension plans, asset/ liability management, etc. Other opportunities are available for actuaries in a variety of industries.

The 'Brains'

Actuaries' duties are varied, challenging and so important that they are frequently called the "brains" of the insurance business. Actuaries work with facts, figures and people to solve business problems. They are not only the statisticians of the insurance industry, but also have broader responsibilities in financial management. They frequently evaluate the past, make use of known changes, interpret expected changes and set future directions to determine insurance premiums and retirement benefits.

Actuaries work in many capacities within businesses, consulting firms, government agencies and universities, and often fill senior managerial roles in insurance companies, even becoming senior officers or company heads. Most importantly, all actuaries must have a strong aptitude for mathematics and the ability to apply actuarial knowledge to a range of financial situations.

Becoming an Actuary 精算師

To become an actuary, you could first obtain a Bachelor of Science in Actuarial Science BSc(AutuarSc) degree from HKU (4 years).

To qualify as an actuary, you must obtain an Associateship and Fellowship title from a professional organisation. Qualifications from Australia, the UK and the US are all fully recognised in the local actuarial and insurance industries. The average period of time needed to obtain the necessary titles ranges from three to nine years. The relevant professional organisations are shown below.

The HKU BSc(AutuarSc) has exemption arrangements for certain professional examinations with the Institute and Faculty of Actuaries (IFoA) and the Society of Actuaries (SOA), and has obtained Validation by Educational Experience (VEE) course approval from the Casualty Actuarial Society (CAS), the Society of Actuaries (SOA) and the Canadian Institute of Actuaries (CIA) in North America.

Details of such arrangements can be found at the Department of Statistics and Actuarial Science's website. *https://saasweb.hku.hk/current/as.php*

Institute and Faculty of Actuaries, UK	*actuaries.org.uk*
Society of Actuaries, US	*www.soa.org*
Casualty Actuarial Society, US	*www.casact.org*
Institute of Actuaries of Australia	*www.actuaries.asn.au*

BSc(ActuarSc)
Structure

Disciplinary Core Courses at Introductory Level
(48 credits)

Course code	Course title
ACCT1101	Introduction to financial accounting
COMP1117	Computer programming
ECON1210	Introductory microeconomics
ECON1220	Introductory macroeconomics
MATH1821	Mathematical methods for actuarial science I
MATH2822	Mathematical methods for actuarial science II
SDST2901	Probability and statistics: foundations of actuarial science
SDST2902	Financial mathematics

Disciplinary Core Courses at Advanced Level
(66 credits)

SDST3901	Life contingencies I
SDST3902	Mathematical statistics
SDST3903	Stochastic models
SDST3904	Corporate finance for actuarial science
SDST3905	Introduction to financial derivatives
SDST3906	Risk theory I
SDST3907	Linear models and forecasting
SDST3908	Credibility theory and loss modelling
SDST3909	Life contingencies II
SDST3910	Financial economics I
SDST4904	Statistical learning for risk modelling

Disciplinary Elective Courses at Advanced Level
(At least 12 credits)

SDST3911	Financial economics II
SDST3951	Topics on advanced actuarial modelling
SDST3953	Fundamentals of actuarial practice
SDST3954	Current topics in actuarial science
SDST3956	Life contingencies III
SDST4901	Risk theory II
SDST4902	Selected topics in actuarial science
SDST4903	Actuarial techniques for general insurance

Capstone Experience Courses
(At least 6 credits)

SDST4711	Capstone experience for actuarial science undergraduates
SDST4767	Actuarial science internship
SDST4798	Statistics and actuarial science project

Elective Courses
(54 credits)

Candidates should take at least 54 credits of courses offered by any department, except Common Core Courses.

Candidates may choose to take up to four 6-credit postgraduate courses related to their degree as elective courses, subject to the approval of the Programme Director of BSc(ActuarSc), in consideration of class quota and other academic issues.

SDST3957 Essential principles in actuarial modelling

Starting from the 2025-26 academic year, a free elective course SDST3957, in collaboration with AIA Group and FIS® and exclusively offered to BSc(ActuarSc) students, is offered. This course focuses on the application of actuarial knowledge to develop models using the software Insurance Risk Suite (Prophet), an industry-standard actuarial modelling platform. Through this course, students will gain hands-on experience with tools widely adopted by insurers worldwide. Through this course, students will gain hands-on experience with tools widely adopted by insurers worldwide.

All courses are 6-credit bearing unless otherwise stated.
**The programme structures are subject to change. For the most up-to-date syllabus, please visit the Department's website.*

Center of Actuarial Excellence

The Department of Statistics and Actuarial Science, the University of Hong Kong has been designated a Center of Actuarial Excellence (CAE) by the US Society of Actuaries (SOA) since December 2011.

This prestigious designation is awarded to schools that demonstrate excellence in Actuarial Science by meeting strict criteria on curriculum quality, number and quality of graduates, qualified faculty, ties with business, and beneficial research and scholarship.

Over the years, the Department has dedicated itself to world- class standards of research, teaching and learning, and it is now highly regarded as an international centre of research and learning in the field of statistics and actuarial science.

Accreditation

Under an accreditation agreement with the Institute and Faculty of Actuaries (IFoA), the University of Hong Kong joins the ranks of select institutions worldwide that offer the maximum exemptions (CS1, CS2, CM1, CM2, CB1, and CB2) approved by the Institute and Faculty of Actuaries (IFoA), United Kingdom.

The University of Hong Kong has previously obtained accreditation for IFoA subjects CT1-CT8 from the UK's only chartered professional body dedicated to educating, developing and regulating actuaries based both in the UK and internationally. With the new accreditation, students who graduate with a BSc(ActuarSc) degree from the University of Hong Kong with the required marks in specified subjects will be exempted from taking various IFoA subjects in the new curriculum, as they begin their journey towards qualifying as an actuary.

CAE Research Grant

The Department of Statistics and Actuarial Science was awarded the CAE Research Grant by the SOA. Worth US$281,490, the grant has been used to conduct a three-year project on the actuarial study of dependent risks. As one of the only three universities in China/Asia to have been designated a CAE by the SOA, and one of just 33 worldwide, HKU is also the only university in Asia having been awarded a CAE Research Grant at the time of this writing.

For the list of CAE Grant recipients and award's history, please visit: *https://www.soa.org/education/resources/cae/edu-cae-grants-award-history*

For details of the Department's SOA-funded project, please visit: *https://saasweb.hku.hk/center-actuarial-excellence/*

Actuarial University Ranking

HKU was ranked No.2 worldwide and No.1 in Asia based on research contributions from the top 4 actuarial journals (Insurance: Mathematics and Economics, North American Actuarial Journal, ASTIN Bulletin, and Scandinavian Actuarial Journal) amongst non-business schools over a 25-year period from 1994 to 2019. It was 1994 when the BSc in Actuarial Science programme was launched. HKU was even ranked No.1 in 2006 and 2013 worldwide in this global study conducted by the University of Nebraska-Lincoln.

SOA - University-Earned Credit (UEC) Program

The University-Earned Credit (UEC) program of the Society of Actuaries (SOA) allows university students to become eligible for SOA exam credit by attaining a designated UEC mark on university courses at approved Centers of Actuarial Excellence (CAE).

The University of Hong Kong (HKU), as one of the CAE designated by the SOA, obtained the UEC status approved by the SOA in July 2022, as one of the 13 inaugural UEC participants. Students who have taken the approved courses at HKU (not by credit transfer) and received a UEC mark of 60% or above are eligible to apply for the corresponding UEC from the SOA for exam exemption.

The UEC mark of a student taking an approved HKU course refers to Final Exam mark of that course.

The related SOA exams and the corresponding approved HKU course(s) are listed as follows:

Exam FM	SDST2902
Exam SRM	SDST3907, SDST4904
Exam ASTAM	SDST3908, SDST4903
Exam ALTAM	SDST3909, SDST3956

Scholarships

China Life Insurance (Overseas) Scholarship in Actuarial Science

In 2017, China Life Insurance (Overseas) Company Limited kindly donated a sum to establish a scholarship for outstanding undergraduate students pursuing Actuarial Science studies at HKU, with an objective of nurturing talents for the insurance industry. A total of five scholarships shall be awarded annually to Year 2 or above students in the Bachelor of Science in Actuarial Science programme, with at least one award each to students in the second, third and fourth year of study. The Scholarship shall be awarded on the basis of academic merit (cumulative GPA of 3.2 or above) and, if necessary, interview performance.

For details about all HKU's scholarships, please visit: *aas.hku.hk/scholarship-opportunities*

Dr Patrick S C Poon Scholarship in Actuarial Science

Dr Patrick S C Poon, SBS, Honorary University Fellow of HKU, generously pledged to establish a scholarship scheme to encourage young talents to pursue a career in the actuarial profession and topromote the development of actuarial science in Hong Kong. Five awards shall be awarded annually to first-year BSc(ActuarSc) students freshly admitted through JUPAS with the most outstanding entrance record. Each Dr Patrick S C Poon Scholarship in Actuarial Science is valued at HK$50,000, whilst an additional HK$10,000 will be awarded to successful candidates who achieve Level 5** in HKDSE English Language or who urgently require financial assistance to complete their studies. The scholarship is renewable based on satisfactory performance in each year of study.

QRT-HKU Scholarships*

In 2025-26, Qube Research & Technologies Hong Kong Limited ("QRT") kindly pledges to establish the QRT-HKU Scholarship at the University. Up to five scholarships shall be awarded to first year students who pursue Bachelor of Statistics and Bachelor of Science in Actuarial Science based on the academic performance in prevailing public examinations for admissions to the University.

School of Computing and Data Science Entrance Scholarship

Up to ten scholarships shall be awarded annually on the basis of academic merit as shown in the results of the relevant public examinations to local and non-local students freshly admitted to the undergraduate programmes of the School. Each award shall be of the value of HK$50,000 and tenable for four years.

Sir Edward Johnston Prize
(Awarded by the IFoA)

The Sir Edward Johnston Prize is awarded to the best performing graduating students on the actuarial programmes at several universities including HKU, which are linked to the Institute and Faculty of Actuaries (IFoA), UK.

For details, please visit the IFoA's website: *actuaries.org.uk*

Statistics and Actuarial Science (SAAS) Scholarships

Twenty-one scholarships are made available each academic year by the Department of Statistics and Actuarial Science. The Department awards these scholarships annually on the basis of academic merit to outstanding students in different years of study who are pursuing the BSc(ActuarSc) degree.

The Hong Kong Federation of Insurers Scholarship

In 2012, the Hong Kong Federation of Insurers Educational Trust kindly pledged an annual donation to support scholarships for undergraduates majoring in Actuarial Science at HKU, with the objective of encouraging tertiary education in insurance. A maximum of six scholarships, each of the value of HK$20,000, shall be awarded annually to outstanding BSc(ActuarSc) Year 3 or above local students.

The Life Underwriters Association of Hong Kong Scholarship*

In 2022, The Life Underwriters Association of Hong Kong and The LUA Foundation Limited have both pledged an aggregate annual donation, for an initial period of five years, to support undergraduate students through scholarship and bursary. Two scholarships shall be awarded annually to year 2 or above local full-time undergraduate students reading the Bachelor of Science in Actuarial Science or Bachelor of Statistics (Professional core in Risk Management). The Scholarship shall be awarded based on academic merit with a cumulative GPA of 3.2 or above. In cases of students of equal academic merit, participation of community service shall also be taken into consideration. The Scholarship shall be of the value of HK$10,000 each.

YF Life Scholarship in Actuarial Science and Risk Management*

In 2023, YF Life Insurance International Limited kindly pledged to establish the YF Life Scholarship in Actuarial Science and Risk Management at HKU, with an objective of nurturing talents for the insurance industry. Five scholarships, each of the value of HK$15,000, shall be awarded annually to outstanding undergraduate students in the Bachelor of Science in Actuarial Science, or Bachelor of Statistics (Professional core in Risk Management) degrees on the basis of academic merit and performance in an interview, if arranged by the Selection Committee.

** Subject to Approval*

More information

Computing Facilities

The Department currently houses a statistical computer laboratory, which is equipped with up-to-date statistical software for teaching and learning and research purposes.

Student Society

The Statistics and Actuarial Science Society (SASS) has dedicated itself to promoting the study of actuarial science, decision analytics, risk management and statistics. It also serves to provide a sense of unity, promote the welfare of its members and maintain a harmonious relationship between staff members and students.

Every year, the SASS organises a variety of functions, including the alumni mentorship scheme, annual dinner, annual survey, firm visits and many more. The SASS works closely with the Department and serves its members with enthusiasm. They strive in the best interests of their members and aim to ensure they enjoy a fruitful and joyful university life.

HKU Worldwide Undergraduate Student Exchange Programme

At HKU, we aim to equip our students with not only academic excellence, but also the knowledge, skills, and values needed to become influential citizens in today's globalised world. To achieve this goal, we offer a variety of overseas learning opportunities. Studying abroad can be a transformative experience, and we actively encourage our students to take advantage of these programmes.

The HKU Worldwide Undergraduate Student Exchange Programme (HKUWW) provides exchange places from partner institutions (or host institutions) of the University for one or two semester(s). Students are offered exchange opportunities in world-renowned universities such as Harvard University, Columbia University, McGill University, the University of Toronto, the University of California at Berkeley, Davis, Santa Barbara and Los Angeles, the University of Melbourne, the University of British Columbia, the University of New South Wales, the University of Amsterdam, Georgetown University, the University of Waterloo, just to name a few.

SAAS Professional Development (SAAS – PD)

SAAS-PD aims to equip students of Department of Statistics and Actuarial Science (SAAS) with the skills and knowledge to succeed in future at workplaces. It highlights a Career Advising Programme (CAP) consisting of a series of career preparation initiatives, with the objective to help students gain the skills, knowledge, experience, understanding of the world of work and connection needed to excel at the respective workplaces. On a broader horizon, SAAS-PD aims also to foster a close relationship between academia and industry, and to facilitate a mutually beneficial network concerning students' and fresh graduates' career opportunities.

Career Advising Programme (CAP)

- Tailored consultation on CV and cover letter writing
- One-to-one or group consultation on interview skills, e.g. mock interview
- Tailored modules of Professional Preparation Programme (PPP)
- Career talks
- Company visits
- Alumni sharing
- Corporate Mentorship Programme
- Career Fair

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, the Statistics and Actuarial Science Society (SASS), the Department, the School and the University at large. Mentors also enjoy opportunities to become acquainted with their counterparts working in similar fields.

Internship Programme

There is no better training than obtaining solid hands-on experience in the real workplace. Our Internship Programme serves precisely this purpose. As an intern, the student will gain insight into the challenging world and daily activities of an actuary while strengthening his/her technical, analytical and communication skills.

Under the Internship Programme, BSc(ActuarSc) students are eligible to use the Department's **Internship / Job Online-application System**, where related internships and other job openings including graduate positions will be posted. Our alumni may wish to know that normally they will still be eligible to use the System after graduation from our Department.

The Internship Programme 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. Recruitment activities normally begin at least six months prior to the expected starting date of a position. For details about our Internship Programme, please visit: *https://saasweb.hku.hk/teaching/internship-details.php*

Partial list of companies participating in the Department's internship programme:

- Ageas Insurance (富通)
- AIA Group Limited (友邦)
- AXA Insurance (安盛)
- BOC Group Life Assurance (中銀人壽)
- Deloitte Touche Tohmatsu (德勤)
- Ernst and Young (安永)
- FWD Life Insurance (富衛)
- General Re (通用再保險)
- Goldman Sachs (高盛)
- HKSAR Government (香港特別行政區政府)
- HSBC Life (滙豐保險)
- JP Morgan (摩根大通)
- Manulife (宏利)
- Mercer (美世)
- Morgan Stanley (摩根士丹利)
- Prudential (保誠)
- RGA Reinsurance (美國再保險)
- Sun Life Financial (永明金融)
- Standard Chartered (渣打)
- Swiss Reinsurance (瑞士再保險)
- Willis Towers Watson (韋萊韜悅)
- Zurich Insurance (Hong Kong) (蘇黎世保險)

Employment Statistics of Actuarial Science Graduates

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 firm and investment banks such as AIA, AXA Insurance, BOC Group Life Assurance, Chubb Life Insurance Company Limited, HSBC Life, Manulife, Sun Life Financial, Prudential, PricewaterhouseCoopers, 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 such as Harvard University, Cambridge University, Oxford University, the London School of Economics and Political Science, the Wharton School of the University of Pennsylvania, Johns Hopkins University, Columbia University, Cornell University, University of Waterloo, and University of Toronto.

2024 BSc(ActuarSc) Graduates

The majority of BSc(ActuarSc) graduates were employed in Commerce & Industry.

Commerce & Industry **97.1** %

Civil Service **2.9** %

The remuneration received by BSc(ActuarSc) graduates in full-time employment

Gross Income (Monthly)	
Average	HK$31,144
Maximum	HK$70,000
Median	HK$30,000

Number of job offers received by 2024 BSc(ActuarSc) Graduates

No. of job offers	No. of graduates received (% of graduates)
One	63.3%
Two	30.0%
Three	6.7%

Student Testimonial

SIN Cheuk Yu Jerry

2024 BSc(ActuarSc) graduate

Studying this program was one of the best choices that I have ever made. I gained the skills needed to pass professional exams and, more importantly, the opportunity to gain experience via projects and internships. All these were proved essential during my postgraduate studies and substantially helped lay the groundwork for my career.

Aside from my own experience, the program is highly respected in the industry and professionally accredited by organizations such as the Society of Actuaries (SOA). Accreditation through the program allows the qualifying students to be exempted from exams and obtain VEE credits. By the time of graduation, most have done internships and taken several actuarial exams, which gives them a clear edge in the job market.

Equally important is the out-of-class support. The department organizes professional and IT skill training sessions, company visits, and career fairs to help strengthen students' technical and communication skills and build industry connections.

Besides, since the program curriculum spans statistics, e conomics, finance, and accounting, and provides training in programming skills, graduates possess the ability to pursue their careers in diverse fields. Many have chosen the traditional actuarial and consulting route, while others have gone into finance, banking, and management consulting.

Looking back, I am truly grateful for the comprehensive training and huge support from this program that has shaped both my studies and career."

Jerry is working as a PathWise Consulting Analyst in Aon Reinsurance Canada ULC at the time of this writing.

LAM Ching Yu Marco

FSA, FASHK, 2022 BSc(ActuarSc) graduate

My 4 years spent in the Bsc(Actuarial Science) Programme were immensely rewarding and formative. During that time, I was given ample opportunities to develop and grow in various aspects. Academically, HKU's competitive and intellectually stimulating courses allowed me to develop the necessary skills required for an actuary, and provided me with the confidence and knowledge to tackle the numerous professional exams required by our profession. The flexible course structure also allowed me to expand my horizons and incorporate programmes from other departments into my academic journey, allowing me to further develop my skills in numerous fields such as physics and computer science. Moreover, HKU was also extremely supportive in my career development. I was able to participate in mentorship programmes and secured internships through the various career oriented programmes organized by the department, and was even allowed an opportunity to serve as a tutor in a course to share my insights and experience with other students, allowing me to also develop my own abilities along the way. Furthermore, through the department's numerous well-placed partnerships, I was also fortunate to be supported financially by various scholarship opportunities, which provided me with the financial freedom to pursue my academic goals at will. All in all, the actuarial science programme gave me 4 excellent years, and served as an invaluable springboard for my career after graduation.

LAI Pui Yi Wendy

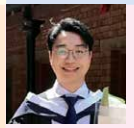
FSA, 2023 BSc(ActuarSc) graduate

Studying Actuarial Science at HKU has been an incredibly rewarding journey. The Department of Statistics and Actuarial Science (SAAS) offered a wealth of opportunities and resources that supported my academic and professional growth. The program equipped me with strong analytical skills and a solid technical foundation essential for actuarial exam progression. SAAS also has an extensive network with business firms and industry bodies, which opened doors for diverse connections and insights into the actuarial field. Through mentorships, firm visits, and internships, I gained valuable industry exposure that shaped my career direction. These experiences bridged the gap between textbook knowledge and the workplace, forming a solid foundation for my career advancement. In addition, exchange experiences broadened my global perspective, while research studies fulfilled my academic curiosity. Looking back, I am truly grateful for the opportunities and support from SAAS that enriched my university life and paved the way for my career as an actuary.

IQBAL Nibras

2024 BSc(ActuarSc) graduate

Studying this program was one of the best choices My aspiration to become an actuary began in high school, inspired by the profession's diverse career opportunities and the prospect of becoming a global citizen. During my search for universities, I found that HKU was one of the very few universities that was given the highest recognition globally by both SOA and IFoA. Receiving a full tuition scholarship made my dream into reality. From the first semester, I was given the opportunity to immerse myself in professional speaking and presentation, while learning to craft effective CVs and cover letters. My participation in the Corporate Mentorship Program paired me with an experienced actuary, providing invaluable guidance that led to a full-time internship. The skills, experiences, connections, opportunities, and reputation I gained from HKU ultimately paved the way for my current role at one of the largest insurers in Hong Kong.



XIAO Fanju Sean

2025 BSc(ActuarSc) graduate

I am most grateful that HKU gave me the freedom to explore my path with steady support. The actuarial science programme's structured curriculum and approachable faculty let me shape parts of my studies and receive timely guidance. The mentorship programme and internships arranged through the department helped me turn coursework into practice and understand how actuarial concepts work in business settings. The peer community set high expectations while remaining supportive, which helped me develop resilience, stay disciplined and keep improving. That mix of freedom, guidance, opportunities and challenges continues to shape my graduate study and how I approach early professional development.

LI Tsz Ying Xenia

FSA, 2019 BSc(ActuarSc) graduate

I am proud to be a graduate from the HKU Actuarial Science program. The curriculum provides rigorous training not only in technical actuarial skills but also in soft skills. The actuarial courses are also designed to be closely connected to the industry and give students a head start in obtaining professional recognition, such as from the Society of Actuaries.

I am also fortunate to have access to an extensive network of HKU alumni and professionals across various companies and universities, which offers internship opportunities at industry-leading companies, exchange programs with top institutions worldwide, and career talks. The support from HKU fellows and professors has remained strong, even after I began working in the industry.

CHU Pan Fan Jennifer

ASA, 2018 BSc(ActuarSc) graduate

Looking back, this program was one of the best decisions I made. It gave me the structure and support I needed to become an actuary. It equips me the technical skills and professional mindset needed in the actuarial field.

The professors were not only knowledgeable but also invested in our success — offering guidance on academic challenges, career decisions, and even personal research interests beyond the classroom. I also appreciated the flexibility to take on internships and go on exchanges, which really enriched my experience.

It was tough at times, but the support was always there. Completing the program gave me a real sense of accomplishment and confidence in my abilities.

LIN Wei Zhe Nicholas

2023 BSc(ActuarSc) graduate

This program helped me build a solid foundation for my actuarial career. The courses are closely aligned with the professional exam syllabi, making the transition from university learning to exam preparation smooth. Many of my classmates had already passed several professional exams by the time we graduated, which gave us a real advantage in the job market. Beyond the classroom, the half-year internship course provided me with an opportunity to apply theoretical concepts in a business setting, collaborate with industry professionals, and develop technical skills essential to actuarial work, all of which thoroughly prepared me for my future career. Another highlight was the mentorship program, which connected me with experienced actuaries who offered valuable career advice and industry insights. With its well-structured curriculum and extensive industry exposure, this program is an excellent choice for anyone pursuing a career in the actuarial profession.

World-class Research and Excellence in Teaching and Learning

Since its establishment in 1967, the HKU Department of Statistics and Actuarial Science has always dedicated itself to reaching world-class standards with aspirations to be an international centre of excellence for both research and teaching and learning (T&L). Underpinning this enduring dedication is the Department's dynamic research profile with wide-ranging areas of expertise. Over the years, the Department has been awarded General Research Fund (GRF) grants by the University Grants Committee (UGC) to undertake numerous research projects in statistics and actuarial science.

According to the UGC's Research Assessment Exercise (RAE#) 2020, we rank No.1 in terms of the percentage judged to meet the standard of 4-star, the highest starred level for overall quality profile of research, out of seven comparable units of assessment for Mathematics and Statistics. Our impact and environment sub-profiles even reach 100% of 4-star quality, i.e. outstanding in terms of reach and significance, and world-leading in terms of vitality and sustainability respectively, as defined by the UGC.

For details of the Department's research directions, please visit:
https://saasweb.hku.hk/research/staff_interest.php

 # The RAE is part of the UGC's commitment to assessing the performance of the UGC-funded universities in Hong Kong. It is a criterion-referenced exercise against agreed quality levels as defined by international standards. Over the years, the outcome of the RAE has provided guidance for universities' developments in respect of pursuing research excellence. Universities' performance in the RAE also informs the allocation of part of the Research Portion of the Block Grant.

Our Teaching Staff and Research Fields

Professor Tim J. BOONEN
BSc, MSc, PhD Tilburg
Actuarial Science; Capital Allocation; Game Theory; Insurance Economics; Optimal (Re)insurance; Longevity Risk Modelling; Risk Sharing

Professor K.C. CHEUNG
Division Head
BSc(ActuarSc), PhD HK; ASA
Actuarial Science; Dependent Structures; Stochastic Orders; Risk Measures; Optimal Insurance; Extreme Value Theory

Professor Alfred W.F. CHONG
BSc HK; MPhil CUHK; PhD HK, KCL; ASA
Actuarial Science; Quantitative Risk Management; Financial Mathematics; Risk Sharing and Pooling; Risk Aggregation and Resource Allocation; Catastrophe Risk Management; AI; Life and Retirement Products; Forward Preferences

Professor J.H. DU
BSc Sun Yat-sen; MSc Chicago; PhD Carnegie Mellon
Causal Inference; Assumption-lean Inference; High-dimensional Statistics; Statistical Genomics

Dr. Olivia T.K. CHOI
BSc UBC; MSc Oxon; PhD ISM
High Frequency Data Analysis/ Market co-integration; Analysis of dually listed companies across different regions

Professor L. FENG
BS Renmin U; PhD Rutgers
Statistical Machine Learning; Image Data Analysis; High-dimensional Statistics; Deep Learning

Professor Edwin C.H. FONG
BA, MEng Cantab; DPhil Oxon
Bayesian Inference; Bayesian Nonparametrics; Model Selection; Causal Inference

Professor Y. GU
BSc USTC; PhD N Carolina
Survival Analysis; Non- and Semi-Parametric Inference; Biostatistics; Alzheimer's Disease; Infectious Disease; Cancer

Professor Marius HOFERT
MSc Syracuse; Dipl.-Math. oec., Dr. rer. nat.Ulm
Dependence Modeling; Computational Statistics; Data Science; Quantitative Risk Management

Dr. C.W. KWAN
BSc, PhD HK
Influence Observations; Multivariate Statistics; Non-linear Random Model

Dr. Adela S.M. LAU
BEng City; MSc HK; PhD CUHK
Social Media and Big Data Analytics; Artificial Intelligence and Business/Health Informatics; Video Analytics, AI chatbot, and Metaverse; Risk Management and Business intelligence E-learning and Knowledge Management; IS adoption; E-business Strategies and Applications (Healthcare, Finance, Marketing, and Supply Chain Management)

Dr. David LEE
BSc(ActuarSc), MPhil HK; PhD British Columbia; ASA; FHEA
Copula Modelling; Extreme Value Theory; High-dimensional Dependence Structures; Multivariate Tail Dependence

Professor Stephen M.S. LEE
BA, PhD Cantab
Bootstrap; Resampling Methods; Statistical Theory; Asymptotics and Applications

Dr. Eric A.L. LI
BSc HK; MEcon, PhD Syd; FHEA
Real Option Theory and Applications; Resource Economics; Quantitative Trading; Quantum Computing; Blockchain and Smart Contracts

Professor G.D. LI
BSc, MSc Peking; PhD HK
Time Series Analysis; Financial Econometrics; Quantile Regression; High Dimensional Data Analysis; Machine Learning

Professor W.Y. LI
BSc, BEc, MEc SWUFE; PhD Waterloo
Actuarial Science; Insurance Economics; Mathematical Finance

Professor C. WANG
PhD NUS
Random Matrix Theory; Time Series Analysis; High-dimensional Data Analysis

Professor G.S. YIN
MA Temple; MSc N Carolina; PhD N Carolina
AI, Bayesian methods; Big data; Clinical trials; Deep learning; High-dimensional analysis; Machine learning; Survival analysis

Dr. K.P. WAT
Division Associate Head
BSc(ActuarSc), PhD HK; SFHEA; FSA; FASHK; CERA; CFA; FRM
Actuarial Science; Financial Mathematics; Insurance Risk Models; Financial Risk Analysis; Enterprise Risk Management

Professor Dora Y. ZHANG
BSc Nankai; MSc, PhD NCSU
Big Data Analytics; Bayesian Methods; Biostatistics; Statistical Genetics; Bioinformatics; Public Health and Biomedical Research

Professor Michael M.Y. ZHANG
BS UCSB; MS, PhD UT Austin
Machine Learning; Bayesian Non-parametrics; Scalable Inference

Dr. Z.Q. ZHANG
BSc Nankai; MSc E China Normal; PhD HK
Time Series Analysis; Extreme Value Theory; Insurance Risk Modelling; Machine Learning

Professor K. ZHU
BSc USTC; PhD HKUST
Time Series Analysis; Econometrics; Causal Inference

Professor Michael B.Y. ZHU
BMath, MMath, PhD Waterloo; ASA
Time Series Analysis; Econometrics; Causal Inference

Professor Y. ZHU
BS, PhD Duke
Bayesian Statistics; Computational Statistics; Deep Learning; Nonparametric Statistics; Theoretical Statistics

Entrance Requirements and Admission Formula

6729 BSc(ActuarSc)

Entrance Requirements

JUPAS route				
English Language	Chinese Language	Mathematics Compulsory Part	Citizenship and Social Development	Elective Subject: Category A subjects and Extended Module 1 or 2 in Mathematics (M1/M2)
Level 3	Level 3	Level 4	Attained (A)/2	Level 4 in M1/M2 Level 3 in 1 subject

Admission Formula

1.2 x Eng + **1.2 x Math** + **1.2 x M1/M2** + **Best 2 Subjects**

Non-JUPAS Admission

Non-JUPAS route
Applicants with other local/international/national qualifications (e.g., IB, GCE-AL, SAT/AP, NJCEE) will be considered on an individual merit basis. More details are available from the programme website at *cds.hku.hk/prospective-students/undergraduate*

More Information

For more information, please visit our website:
https://saasweb.hku.hk/programme/programme.php

SCHOOL OF COMPUTING & DATA SCIENCE
The University of Hong Kong

Statistics & Actuarial Science 統計及精算學系

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