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 insights and practical experience in the area of Artificial Intelligence and related fields while strengthening his/her technical, analytical and communication skills.

Under the Internship Programme, BASc(AppliedAI) 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.

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:

- Alpha AI Technology Limited
- Eureka FinTech Limited
- Hong Kong Applied Science and Technology Research Institute Company Limited
- SOCIF Limited
- WorldQuant Consulting (Beijing) Company Limited

Other Information

Computing Facilities

One of the primary aims of our programmes is to equip students with powerful mathematical, analytical and computational skills, all of which are in great demand in practical areas where data are gathered and analysed to support the decision-making process.

The Department of Statistics and Actuarial Science currently houses a large statistical computer laboratory, supplemented by a smaller one, both of which are equipped with up-to-date statistical software for teaching and learning and research purposes.

Student Society

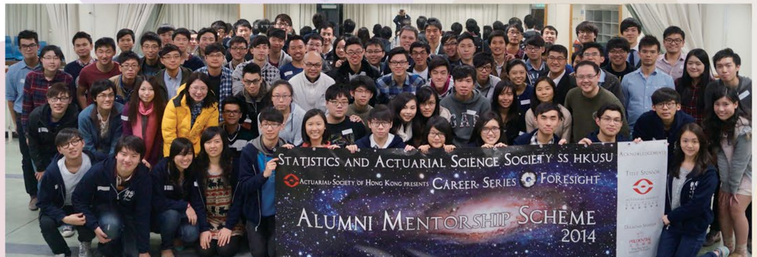
Student societies are volunteer-led, non-profit student organisations that aims to provide platforms for students who share the same interests to network. They serve to provide a sense of unity, promote the welfare of students and maintain a harmonious relationship between staff members and students. In addition to the Statistics and Actuarial Science Society, the AI Society is being set up to facilitate meaningful connections and collaborations between AI students.

Every year, student societies organise a variety of functions, including the alumni mentorship scheme, annual dinner, annual survey, firm visits and many more. They work closely with the Department and serve 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.

Orientation Camp

Career Talk


Superpass Dinner



Alumni Mentorship Scheme


Annual Dinner

Statistics & Actuarial Science 統計及精算學系

Bachelor of Arts and Sciences in Applied Artificial Intelligence 文理學士（應用人工智能）

IMPACT THE WORLD WITH THE LIMITLESS POWER OF AI

BASc | HKU Bachelor of Arts & Sciences

AI AppliedAI

FACULTY OF SCIENCE THE UNIVERSITY OF HONG KONG 香港大學理學院

SHKU Science

HKU programme code **6224**

The Bachelor of Arts & Sciences in Applied Artificial Intelligence

BASc(AppliedAI)

The world is now undergoing a rapid revolution in technology with the emergence of artificial intelligence (AI), a notion attributed to machines that exhibit intelligence and emulate cognitive functions usually associated with humans. With the advent of machine learning and predictive analytics, the traditional system is being replaced by self-adaptive automation in many, if not all, industries.

As an international university HKU seeks to endow future leaders with innovative ideas and a scientific mindset, as well as a deep sense of social and ethical awareness. We should equip best students with the right training to find innovative solutions to real-life problems and exert beneficial impacts on the society with their knowledge in AI.

About the Programme

The 6224 Bachelor of Arts & Sciences in Applied Artificial Intelligence 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 in:

finance
business
science and technology
health care
banking
medical informatics
environmental protection
neurocognitive science
urban development

and more.....

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

Supported by a wide range of core courses and electives in computer science, geography, mathematics, psychology, statistics, and urban studies, which emphasise problem-based learning, the programme features five concentrations:

AI

Technology
in Business and Finance
in Medicine
in Smart City
in Neurocognitive Science

Students will learn to transfer interdisciplinary scientific knowledge into a wide range of integrated applications and technological innovations. Upon graduation, they will be exceptionally well-equipped to create AI products with transformational impacts in different industries. Students will also be able to acquire a competitive advantage in becoming vital assets of any organisations which need to formulate intelligent strategies.

BASc(AppliedAI) Curriculum*

Core Courses
(66 credits)

APAI1001	Artificial intelligence: foundation, philosophy and ethics
COMP1117	Computer programming
COMP2119	Introduction to data structures and algorithms
COMP2120	Computer organization
COMP3340	Applied deep learning
MATH1013	University mathematics II
MATH2014	Multivariable calculus and linear algebra
MATH3904	Introduction to optimization
STAT2601	Probability and statistics I
STAT2602	Probability and statistics II
STAT3612	Statistical machine learning

Concentration
(24 credits)

(For fulfilling the requirement of a concentration, students should choose at least 18 credits, with at least 6 credits of which should be at advanced-level, from the corresponding list)

AI Technology	COMP3271	Computer graphics
	COMP3356	Robotics
	APAI3010	Image processing and computer vision
	APAI4011	Natural language processing
	APAI4012	High-performance computing
	APAI4099	Special topics of applied AI
AI in Business and Finance	COMP3320	Electronic commerce technology
	MATH3901	Operations research I
	MATH3906	Financial calculus
	STAT3613	Marketing analytics
	STAT4601	Time-series analysis
	APAI4099	Special topics of applied AI
AI in Medicine	STAT3655	Survival analysis
	STAT4610	Bayesian learning
	APAI3021	Modern biostatistics
	APAI4022	Omics data analysis
	APAI4023	Medical image analysis
	APAI4099	Special topics of applied AI
AI in Smart City	URBS1003	Theories and global trends in urban development
	URBS1005	Urban problems, interventions and design thinking
	GEOG2090	Introduction to geographic information systems
	GEOG3202	GIS in environmental studies
	GEOG3420	Transport and society
	APAI4099	Special topics of applied AI
AI in Neurocognitive Science	PSYC1001	Introduction to psychology
	PSYC2007	Cognitive psychology
	PSYC2051	Perception
	PSYC2066	Foundations of cognitive science
	PSYC2067	Seminars in cognitive science
	APAI4099	Special topics of applied AI
Other Elective Courses	COMP3250	Design and analysis of algorithms
	COMP3278	Introduction to database management systems
	MATH3601	Numerical analysis
	MATH3911	Game theory and strategy
	MATH3943	Network models in operations research
	STAT3600	Linear statistical analysis
	STAT3622	Data visualization
	STAT4602	Multivariate data analysis

Capstone Requirement
(6 credits)

(If students take the 12-credit 'Applied AI project', they do not need to take a 6-credit elective course.)

At least 6 credits selected from the following courses:

APAI3799	Directed studies in applied AI
APAI4766	Applied AI internship
APAI4798	Applied AI project (12-credit)

Students are reminded to take 3 BASc core courses to fulfill the BASc core course requirement:

BASC9001	Approaching interdisciplinarity: Knowledge beyond disciplines;
DESN9002	Sustainable leadership; and
STAT1016#	Data Science 101

** The curriculum and course offering are subject to changes. Each course is 6-credit bearing unless otherwise stated.*
 # Course code and course title to be confirmed.

Admissions Requirements

JUPAS Stream

Minimum level required for JUPAS candidates:

English Language	Level 4 [Note]
Chinese Language	Level 3
Mathematics	Level 4
Citizenship and Social Development/ Liberal Studies	Attained/ Level 2
Elective Subjects: Category A subjects and Extended Module 1 or 2 in Mathematics (M1/M2)	Level 4 in M1/M2 Level 3 in 1 elective subject

Note: 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.

No. of first-year places **15**

NON-JUPAS Stream

Students holding non-HKDSE qualifications are considered individually.

Admissions Formula

The programme will consider admissions based on the best 5 HKDSE subjects. The best 5 subjects must include English Language, Mathematics, Extended Modules 1 or 2 in Mathematics (M1/M2), plus the best two among the remaining Category A subjects.

Heavier weighting will be given to the following HKDSE subjects:

- English Language, Mathematics, and M1/M2: each subject will be given a weighting of 2
- Biology, Chemistry, Physics, Combined Science, Integrated Science and Information and Communication Technology: each subject will be given a weighting of 1.5

Scholarships and Awards

Science Entrance Scholarship
The Scholarship will be awarded to students admitted through JUPAS on the basis of academic merit. The award value shall be between HK$10,000 and HK$70,000, subject to HKDSE Examination Results.

Winnie S M Tang Scholarship in Applied Artificial Intelligence
In celebration of the Faculty of Science Oak Anniversary in 2019, Dr Winnie S M Tang, an alumna of the Faculty, pledged to establish a scholarship scheme for undergraduates. Two scholarships, each of the value of HK$20,000, shall be awarded to outstanding BASc(AppliedAI) students on the basis of academic merit.

Yu Kam Tim Chan Siu Hing Award in Artificial Intelligence and Data Science
In celebration of the Faculty of Science Oak Anniversary in 2019, Mr Yu Kam Tim and Mrs Yu Chan Siu Hing, both alumni of the Faculty, pledged to establish an award scheme for undergraduates. Two awards, each of the value of HK$10,000, shall be awarded to outstanding BASc(AppliedAI) students in alternate years.

For details about all HKU's scholarships, please visit:
https://www.scholarships.hku.hk

BASc | HKU Bachelor of Arts & Sciences

AI AppliedAI

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HKU Science

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