

Science

Undergraduate Programmes

Ignite Your Bright Future with Science

2024-25 (September 2024 intake)

6901 BSc Bachelor of Science

6688 BSc&MRes Bachelor of Science & Master of Research
(Science Master Class)

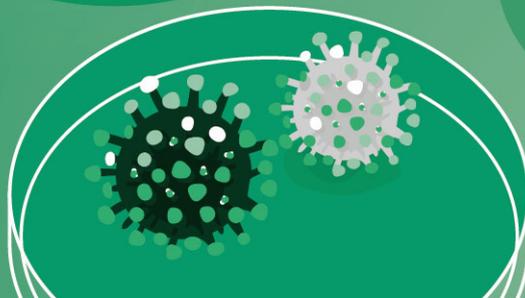
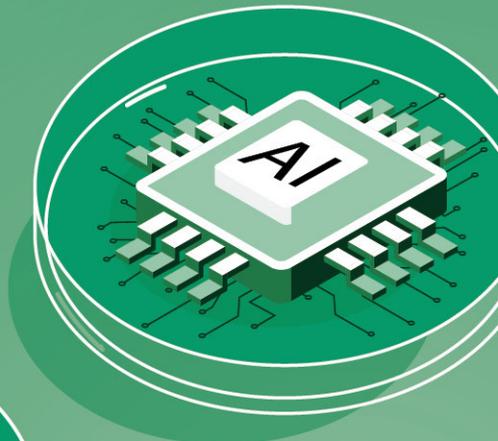
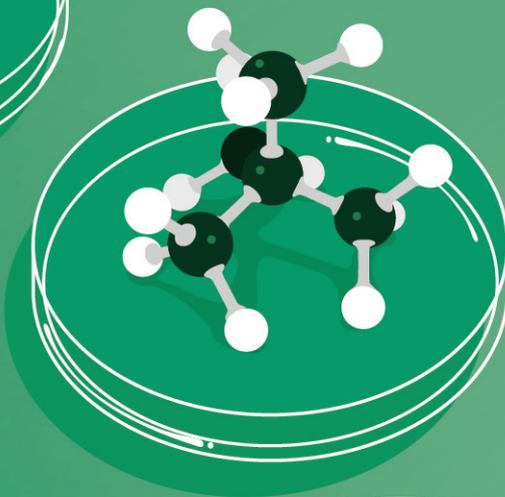
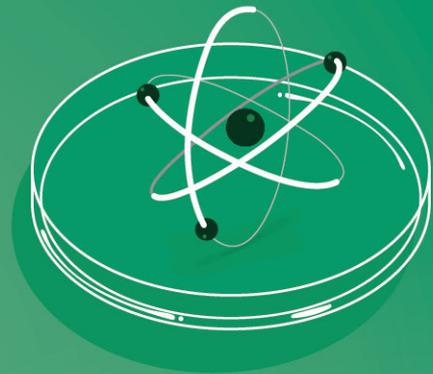
6858 BSc&LLB Bachelor of Science and Bachelor of Laws
(5-year Double Degree Programme)

6729 BSc(ActuarSc) Bachelor of Science in Actuarial Science

6224 BAsc(Applied AI) Bachelor of Arts and Sciences (Applied AI)

6212 BAsc Bachelor of Arts and Sciences

6119 BEd&BSc Bachelor of Education and Bachelor of Science
(5-year Double Degree Programme)



Programmes We Offer

6901

Bachelor of Science

Empowers scientific intellectuals to formulate solutions to society's challenges

- Simple and flexible
- One entry in the application, with a free choice of 14 Science Majors and 7 Intensive Majors
- Options of 1 Major / 2 Majors / Major-Minor / Major-2 Minors
- No quota nor GPA requirement for any Science Major
- Academic Advising System

6688

Double Degree Programme

Bachelor of Science & Master of Research (Science Master Class)

Incubates the next generation of scientists

- Fast-track for completing 2 degrees
- Learning from Science Masters
- Catering the needs of elite students
- Research-oriented

6858

5-year Double Degree Programme

Bachelor of Science and Bachelor of Laws

Nurtures professionals with scientific and legal knowledge in a STEM-driven society

- First of its kind in Hong Kong
- Fast-track for completing 2 degrees in science and law
- Interdisciplinary training for science talents and legal professionals
- Free choice of 14 Science Majors
- Articulation to Postgraduate Certificate in Laws (PCLL) as a step towards professional legal qualification

6729

Bachelor of Science in Actuarial Science

A gateway to the actuarial profession with internationally recognised qualifications

- The only programme in Hong Kong accredited by the Institute and Faculty of Actuaries of UK
- Designated as a Center of Actuarial Excellence with University-Earned Credit programme by the Society of Actuaries of North America
- Provides specialist academic and professional training
- Internship opportunities and career prospects in major insurance companies, actuarial consulting firms, investment banks, etc.

6224

Bachelor of Arts and Sciences in Applied Artificial Intelligence

Impacts the world with the limitless power of AI

- Interdisciplinary programme for elite students
- Highlights diverse AI applications with featured concentrations
- Problem-based learning with a wide range of courses
- Broad career prospects

6212

Bachelor of Arts and Sciences

Nurtures future global leaders to make changes in an interconnected world

- Unique programme for elite students to develop a broad set of scholarly skills
- Well-designed study pathways:
 - 1) Cultures/ Societies
 - 2) Physical World/ Biological/ Human Sciences
- Wide career prospects

6119

5-year Double Degree Programme

Bachelor of Education and Bachelor of Science

Consolidates scientific knowledge through practical experience and teaching in science

- Covers both academic and professional studies
- Incorporates a graduate teaching qualification
- Development opportunities not just in education, but also in commercial and government sectors

Key features



Why HKU Science

Global Experiences

Committed to nurturing students as global citizens with overseas experiences such as:

- Worldwide exchange studies
- Overseas Research Fellowship
- Field trips
- Overseas summer courses
- International scientific conferences
- Internships

International Environment

About **40%** academic staff in the Faculty are from overseas

Top-ranked Scientists

Clarivate Analytics' Essential Science Indicators

18% of our professoriate staff (average over the past decade) are classified Top **1%** scholars

Career Prospects

Essentially **100%** employment rate (inclusive of further studies) in the past decade

High University Rankings



QS Asia University Rankings 2023 **#4**

QS World University Rankings 2024 **#26**

QS Graduate Employability Rankings 2022 **#10**

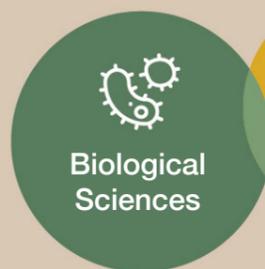


THE Asia University Rankings 2023 **#4**

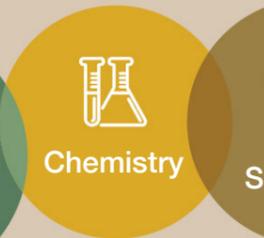
THE World University Rankings 2023 **#31**

THE Most International Universities in the World 2023 **#1**

Departments



Biological Sciences



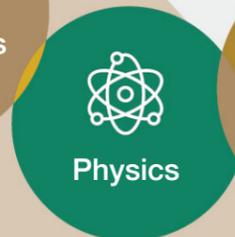
Chemistry



Earth Sciences



Mathematics



Physics



Statistics & Actuarial Science



Special features

for Science Curricula

Young Scientist Scheme (YSS)

Ample early research experiences for outstanding students in the 6901 BSc Programme and 6688 Science Master Class Programme



Cambridge-track under YSS

HKU-Cambridge Undergraduate Recruitment Scheme (Natural Sciences) for selected YSS participants



- Earning 3-4 degrees upon successful completion of 2 years of studies at HKU and 2-3 years of studies at Cambridge

Intensive Majors

Specialisation and intensive training make experts

- Biological Sciences (Intensive)
- Chemistry (Intensive)
- Ecology & Biodiversity (Intensive)
- Geology (Intensive)
- Mathematics (Intensive)
- Molecular Biology & Biotechnology (Intensive)
- Physics (Intensive)

Accreditations

Quality assured through recognition by international professional bodies



Articulation Pathways

Seamless articulation to widely recognised postgraduate programmes

- Taught Postgraduate Programmes at HKU Science
- Doctor of Veterinary Medicine (DVM) at University of Melbourne (UoMelb)

Minor in Science Entrepreneurship

Opening the doors to science entrepreneurship

- Visualises how training in science bears relevance to the real world

Bachelor of Science

Empowers scientific intellectuals to formulate solutions to society's challenges

The Programme

One entry in the application, with a free choice of

14 Science Majors

- Biochemistry
- Biological Sciences
- Chemistry
- Decision Analytics
- Earth System Science
- Ecology & Biodiversity
- Environmental Science¹
- Food & Nutritional Science
- Geology
- Mathematics
- Molecular Biology & Biotechnology
- Physics
- Risk Management
- Statistics

7 Intensive Majors

- **Biological Sciences²**
- **Chemistry³**
- **Ecology & Biodiversity²**
- **Geology⁴**
- **Mathematics**
- **Molecular Biology & Biotechnology²**
- **Physics**

Specialisation and intensive training make experts

- Offered alongside with the regular 96-credit Majors
- Provides students with extensive subject knowledge
- Equips students who intend to pursue research in science
- Listed in the transcript
- Has an advantage in job application, postgraduate studies, and when seeking chartered status



Tackling Novel Situations

Nurtures a scientifically literate population to address the global challenges that human faces and to make wise decisions informed by scientific understanding

Our graduates are preferred by employers because of their numerical analytical skills, logical thinking and critical thinking



Career Prospects

Essentially 100% employment rate (inclusive of further studies) in the past decade

Many of our graduates are **holding positions that demand scientific expertise**, such as environmental scientists, nutritionists, clinical scientists, meteorologists, geologists, information specialists, financial analysts, teachers and forensic scientists

In particular, by equipping the students with in-depth knowledge and skills to tackle intricate and novel challenges posed by **Environmental, Social, and Governance (ESG)** issues, many of our majors have proven to be especially effective in nurturing ESG talents. As the importance of ESG continues to grow globally, our majors provide students with a manifest edge in the job market and the ability to impact their chosen field positively.



Key Features

Academic Advising System

One-on-one academic advice

Options of 1 Major / 2 Majors / Major-Minor / Major-2 Minors

Students may take a 2nd Major or a Minor or 2 Minors in Science or non-Science disciplines

No Quota nor GPA requirement for any Science Major

Simple and Flexible

- One entry in application for a choice of 14 Majors and 7 Intensive Majors
- Up to 2 years time to choose a Major
- Flexibility in changing Majors

Accredited by:



Programme website

Young Scientist Scheme

for Outstanding Students in 6901 Bachelor of Science & 6688 Science Master Class



What is Young Scientist Scheme (YSS) all about?

We are committed to providing outstanding students with the best science education and ample early research experiences, incubating the next generation of scientists.

A wide spectrum of scientific research areas



Biological Sciences



Chemistry



Earth Sciences



Mathematics



Physics



Statistics and Actuarial Science

Institutions for Overseas Research Fellowship

North America

- California Institute of Technology
- Columbia University
- Cornell University
- Massachusetts Institute of Technology (MIT)
- Stanford University
- University of California at Berkeley
- University of California at Los Angeles

Europe

- CERN
- University of Cambridge
- University College London

Examples

Universities for international exchange, visiting or summer study

North America

- University of California
- University of Chicago
- Columbia University
- Johns Hopkins University
- Stanford University
- Yale University

Europe

- University of Cambridge
- Imperial College London
- King's College London

Students in YSS are guaranteed with



Enrolment in our flagship **Summer Research Fellowship (SRF) Scheme** to conduct research under the supervision of our professors in the first summer

A further **SRF or an Overseas Research Fellowship (ORF) Scheme** in a foreign institution in a subsequent year

International exchange, visiting or summer study

Attendance in an **international scientific conference** on frontier scientific research

Individual **guidance from a personal research mentor** from the start of the undergraduate study

Enrolment in our **Frontiers of Science Honours Seminar** to learn how our award-winning professors solve their research problems

Stipends for research programmes

An entrance scholarship ranging from HKD 10,000 to HKD 70,000*

*Scholarships for Non-JUPAS students are considered on case-by-case basis



How to join YSS

HKU-Cambridge Undergraduate Recruitment Scheme (Natural Sciences)

Cambridge-track for Selected YSS Participants in Natural Sciences Disciplines

Earning 3-4 degrees upon successful completion of 2 years of studies at HKU and 2-3 years of studies at Cambridge

HKUer or Cantab?

Why not **BOTH?**



Key Features

- A joint recruitment scheme that allows selected YSS students to pursue studies in two renowned universities
- Allows students to experience overseas life and culture
- Nurtures future science professionals to develop innovative solutions for global challenges
- Ample learning opportunities in YSS

Selected students can follow either of the paths below and attain degrees from both HKU & Cambridge in 4-5 years:



[#] Regular major will be listed on transcript when conferring BSc(HKU) to 6688 students

* The MA is conferred by right on holders of the BA degree at Cambridge, upon application after certain years' seniority as members of Cambridge

Study Path for YSS Students in the Cambridge Scheme (2+2+1) mode



Admissions of Students on the Cambridge-track to Cambridge

- 1 Admissions test & interview in year 2 by Cambridge teachers
- 2 Conditional offer
- 3 Satisfying the requirements
- 4 Firm offer by the end of year 2

Remarks: 1. Students who do NOT opt for a Master's degree at Cambridge will take extra research internships at HKU to fulfil the University's graduation requirements
2. Students will pay HKU fees and Cambridge fees for their study at HKU and Cambridge, respectively



How to Enrol in the Cambridge-track
Number of students selected for each cohort normally will not exceed 60% of the YSS population



Cambridge-track at YSS



Natural Sciences Tripos at Cambridge

Articulations Pathways

Seamless articulation to widely recognised postgraduate programmes

Taught Postgraduate Programmes

@ HKU Science

Articulates HKU Bachelor Programmes to HKU Science Taught Master Programmes

Full-time study mode of 1 year or 1.5 years

1 year

- Master of Statistics
- MSc in Environmental Management
- MSc in the field of Applied Geosciences
- MSc in the field of Food Industry: Management and Marketing
- MSc in the field of Food Safety and Toxicology
- MSc in the field of Physics
- MSc in the field of Space Science

1.5 years

- Master of Data Science
- MSc in Artificial Intelligence

4 years

6901 Bachelor of Science

6729 Bachelor of Science in Actuarial Science

6224 Bachelor of Arts and Sciences in Applied Artificial Intelligence

Quota: No quota for the aforementioned articulation pathway except that for Master of Data Science, a maximum of 2 places will be offered each year

Remark: the list of taught postgraduate programmes for this articulation pathway is subject to change



Doctor of Veterinary Medicine (DVM)

@ University of Melbourne (UoMelb)

Pathway to talented students who aspire to pursue a career in veterinary

In collaboration with University of Melbourne (UoMelb) in Australia, HKU Science provides a pathway to 6901 BSc students with the following majors to articulate into the DVM of the UoMelb:

- Biochemistry
- Biological Sciences
- Ecology & Biodiversity
- Molecular Biology & Biotechnology
- Food & Nutritional Science



Obtains 2 degrees from the 2 universities in as fast as 7 years – the HKU BSc degree and the DVM in UoMelb



HKU 6901 Bachelor of Science

BSc

I

II

III

Optional
IV
1st semester

HKU BSc + UoMelb DVM

articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne



Doctor of Veterinary Medicine (DVM) at the University of Melbourne (UoMelb)

DVM

1

DVM

2

3

4

DVM degree at UoMelb

Credits transferred to HKU BSc

HKU 6901 BSc degree

Quota: A maximum of 5 places annually

Requirements for selected HKU Science undergraduate students

Successful completion of a minimum of 6 semesters



gaining 186 credits under BSc 6901 programme

Credits obtained during the first year of DVM at UoMelb can be transferred to HKU as electives for fulfilling the credit requirements of the BSc programme (subject to relevant HKU regulations)

Programme fees: Students will pay HKU fees and UoMelb fees for their study at HKU and UoMelb, respectively



Career aspects

Graduates can register as veterinary surgeons and practise in HK through Veterinary Surgeons Board of Hong Kong and in many countries such as Australia, UK and US.

About DVM @ UoMelb

Renowned university in the global arena

Its DVM programme ranks 26th in Veterinary Science of QS World University Rankings 2023

Accredited by the Australasian Veterinary Boards Council Inc. (Australia), American Veterinary Medical Association (USA) and Royal College of Veterinary Surgeons (UK)

Minor in Science Entrepreneurship

Opening the doors to entrepreneurship

Aims

- Broadening the horizon of our undergraduate students **with respect to entrepreneurship**
- Offering more competitive edges to our students by **connecting their academic knowledge with the real world**
- Bringing students huge insights through **critical analysis of existing enterprises' operation**

Start

Highlights

- **Co-taught by other Faculties** such as HKU Business School
- Strong emphasis on **practical experience**: Internship, Capstone projects
- **Mentorship** by entrepreneurs or senior staff in industry/ business
- Incorporates **new courses tailor-made for this Minor** such as organisational behaviours, leadership, principles of technology entrepreneurship, science-based innovation development, strategic marketing and user analysis

Analysis

Commitment



Accreditations

Quality assured through recognition by international professional bodies



Hong Kong Institute of Qualified Environmental Professionals

- The Environmental Science Major has been conferred the accreditation
- Students need to complete 7 specific advanced courses for the accredited pathway and can enrol in HKIQEP's Student Membership during their study at HKU
- Students who graduate on the HKIQEP accredited programme will:

have a fast-track to Professional Membership (only 5 years of work experience needed after the degree)

be exempted from certain portions of the Professional Assessment



Royal Society of Biology (RSB), UK

- Biological Sciences, Ecology & Biodiversity and Molecular Biology & Biotechnology Intensive Majors have been conferred the accreditation
- The Ecology & Biodiversity Intensive Major is the first programme of its kind accredited by RSB in Asia
- Students completed the RSB accredited programme will be awarded a certificate by the School of Biological Sciences, with authorisation by the RSB, to recognise their achievements
- Graduates will receive one year of guest membership of RSB at Associate level, helping them to:

stay up-to-date with what is happening across life sciences

gain additional recognition for their skills and experience

demonstrate their support for the future of biology

develop their professional network

Diverse Learning Experiences

Undergraduate Research Experiences

Examples:

North America

- California Institute of Technology
- Columbia University
- Cornell University
- MIT

Overseas Research Fellowship (ORF):

- Stanford University
- University of California at Berkeley
- University of California at Los Angeles

Europe

- CERN
- University of Cambridge
- University College London

Summer Research Fellowship (SRF)

Colloquium Final-year Projects

Undergraduate Research

Directed Studies

Internships

Opportunities in:

- Government bodies
- Scientific laboratories
- Non-government agencies / NGOs
- Commercial companies

International Exchange Studies

Over 300 partner universities in more than 40 countries, including:

North America

- University of California
- The University of Chicago
- Columbia University
- Johns Hopkins University
- Stanford University
- Yale University

Europe

- University of Cambridge
- University of Oxford
- Imperial College London

Field Trips

Provide students with hands-on learning experience

Examples of field trip destinations:

- Australia
- Japan
- Kenya
- Thailand
- USA



Royal Society of Chemistry (RSC), UK

- Exclusively for students who wish to specialise in chemistry
- Students completed the RSC accredited Chemistry Intensive programme will be awarded a certificate by the Department of Chemistry with authorisation by RSC to recognise their achievements
- All students in the final year of this accredited programme are qualified to apply for membership to RSC



The Geological Society
Accredited programme

The Geological Society, UK

- Students completed specified Geology Intensive programme and fulfilled the specific project requirement in EASC4999 Earth Sciences Project will receive an accredited degree which provides an accelerated route to achieve the qualification
- Students completed The Geological Society accredited programme will be awarded a certificate by the Department of Earth Sciences with the authorisation by the Society to recognise their achievements
- Qualification recognised internationally and in Hong Kong, and chartered geologists are regarded as professionally equivalent to chartered engineers

Science Master Class

Learn from the Best Minds Be Inspired by Our Science Masters



Double degree programme for elite students

Provides a **fast-track of study** for talented students:

Completing **2 degrees** at an accelerated pace

Bachelor of Science
BSc

Master of Research
MRes

Remarks: Students in the programme have to maintain a high CGPA in order to remain in this double degree programme or else they have to switch to the 6901 BSc programme

Learning from Renowned Scientists Including

- Members of Chinese Academy of Sciences
- Members of Academy of Sciences of Hong Kong
- Members of Hong Kong's Young Academy of Sciences
- International Member for US National Academy of Sciences
- Foreign Member of Academia Europaea
- Awardees of State Natural Science Awards
- A number of highly cited scientists

Caters specifically to the needs of science-inclined students, with more learning opportunities, intensive training and inspirations

Allows research-aspired students to immerse themselves in an **authentic research environment and learn from Grand Masters and Masters** with diverse backgrounds in Science

Grand Masters through special tutorials

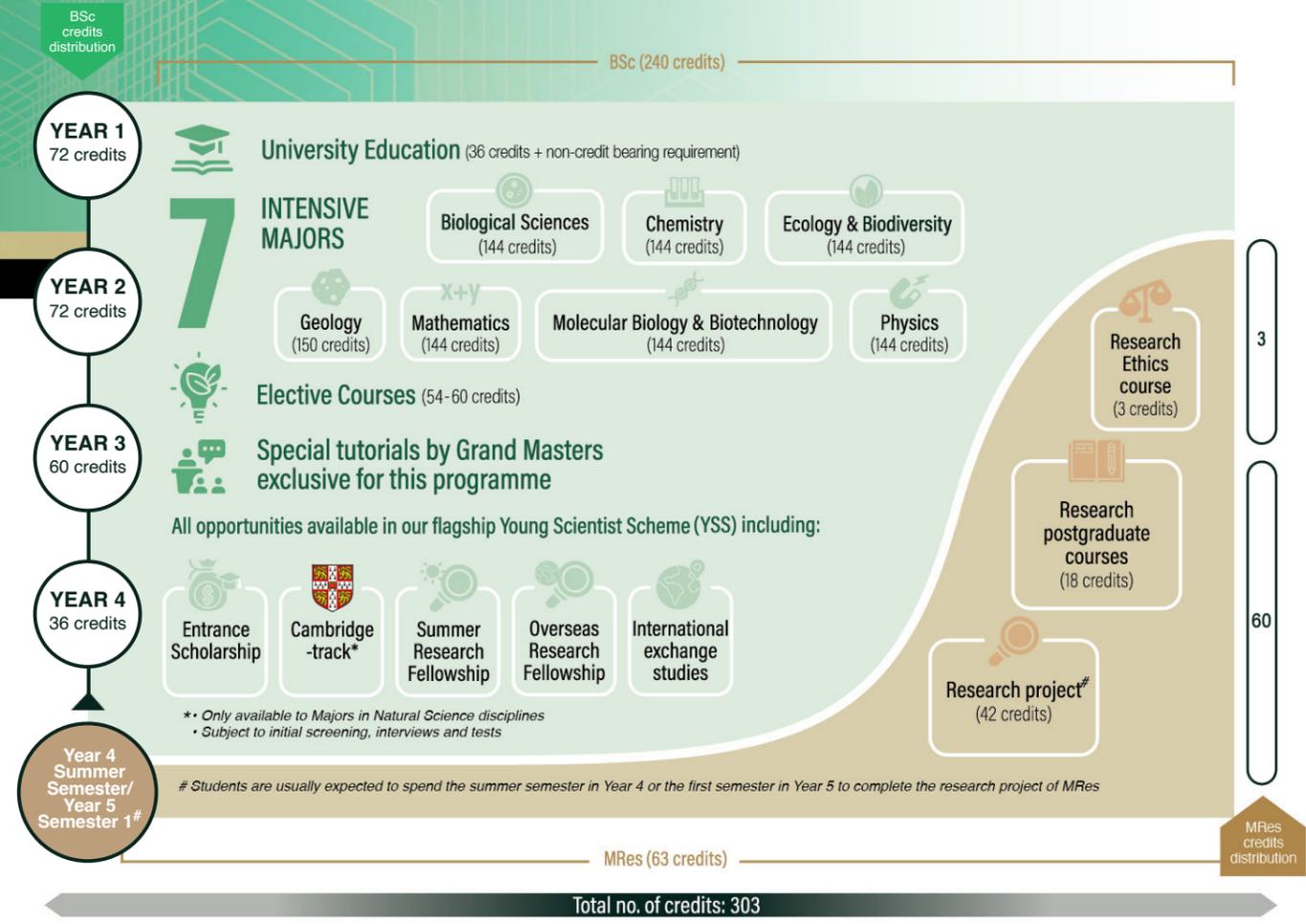
Masters as academic advisers

Incubates the next generation of dynamic scientists who are able to **translate scientific knowledge into practical applications** with far- and wide- reaching impacts

disciplinary-based intensive study for research-aspired students

ample opportunities available in our flagship Young Scientist Scheme (YSS) including

- Summer Research Fellowship
 - Overseas Research Fellowship
 - A chance to join the Cambridge-track*
 - Entrance Scholarship
 - Exchange Study
- * Only available to Majors in Natural Sciences disciplines
 * Subject to initial screening, interviews, and tests
 * Candidates admitted to the Track will go through further screening by Cambridge



Career Prospects

Professional recognition

5 Intensive Majors* fulfil accreditation requirements of various societies in the UK

	Biological Sciences (Intensive)		Geology (Intensive)		Chemistry (Intensive)
	Ecology & Biodiversity (Intensive)				
	Molecular Biology & Biotechnology (Intensive)				

* There is no accreditation available in the fields of Mathematics and Physics

Career development & network

- Nurtures students who intend to pursue research in science
- After completing the BSc and the MRes, students will be fully equipped to further pursue graduate studies in prominent universities overseas or in HKU
- Builds a consortium of young researchers for cross fertilisation of innovative ideas and facilitate possible multidisciplinary projects

Transferable skills

- Provides students with extensive subject knowledge and specialised training
- Nurtures a scientifically literate population to formulate solutions for challenges



Programme website

Bachelor of Science and Bachelor of Laws

Nurtures professionals with scientific and legal knowledge in a STEM-driven society

Double degree programme · Attaining 2 degrees in **5** years



Interdisciplinary knowledge and skills in SCIENCE and LAW

The Programme

LAWS (156 credits)

- Foundational legal concepts and systematic honing of professional skills such as critical thinking, analytical and problem-solving skills, etc.

Courses on case reading, legal research and writing and statutory interpretation, etc.

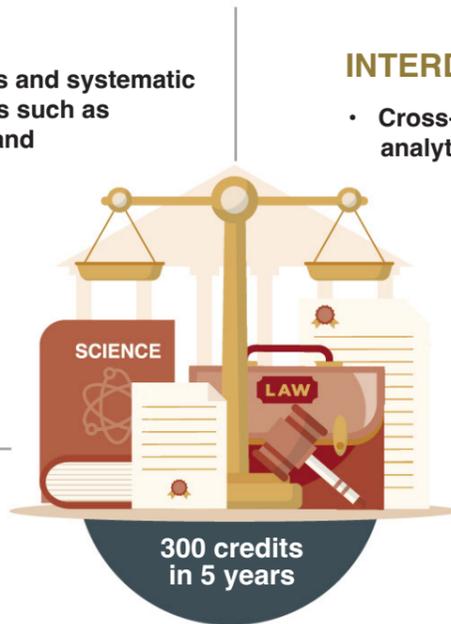
- Valuable experiential learning opportunities

Mooting competitions, clinical legal education

SCIENCE (96 credits)

- Scientific knowledge & research skills

Lectures, laboratory courses and workshops



300 credits in 5 years

INTERDISCIPLINARITY (12 credits)

- Cross-disciplinary knowledge, analytical and evaluation skills

- Independent research experience with original thinking

Research projects, field camps and project-based courses

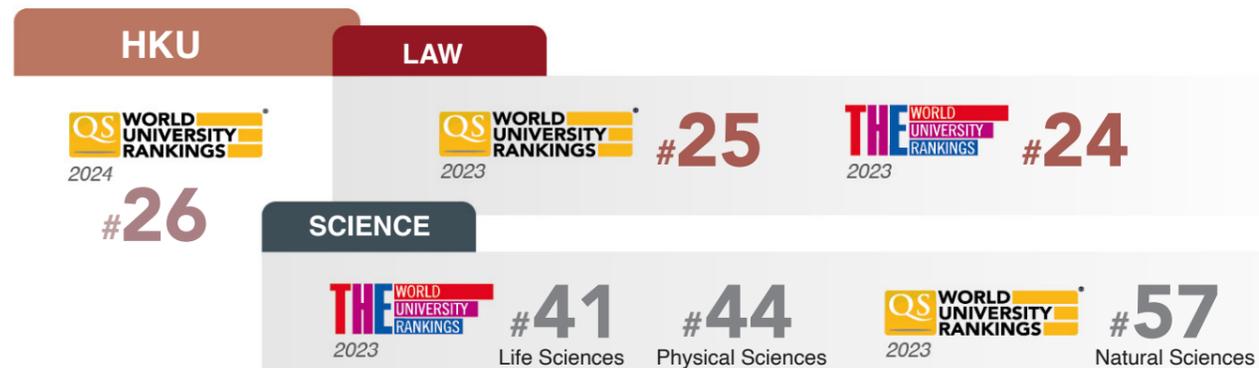
- Work experience

Internships, placements

UNIVERSITY EDUCATION (36 credits)

- Language core courses
- Common Core Courses
- Non-credit bearing requirement

World Rankings



Key Features



First of its kind in Hong Kong for students who intend to develop expertise in both science and law



Cultivates legal and scientific mindsets for academic talents



Copes with the soaring demand of patent practitioners and legal professionals in the technology industry



Feeds into the development of science talents who are capable of handling a wide variety of innovation-related matters such as patent applications



Career Prospects & Articulation Pathways

Transferable skills

- Provides students with extensive subject knowledge and specialised training in law
- Nurtures a scientifically literate population with legal knowledge to formulate solutions for challenges

Articulation

- Eligible to apply for the Postgraduate Certificate in Laws (PCLL) after completing the double degree programme
- In a position to apply for other postgraduate programmes in law or science



Educational institutions



Entrepreneurs in biotechnology industry



Researchers in the fields of science or law



Community, social & personal services
Environmentalists



Commerce and industry
Business compliance professionals in technology companies



Government or regulatory officials handling intellectual property/ technology-related matters



Further studies in science
Professional qualifications in business management, accountancy, corporate administrations, etc.



Solicitors, barristers of in-house counsel (specialising in intellectual property/ technology-related matters)



Programme website

Bachelor of Science in Actuarial Science

A gateway to the actuarial profession with internationally recognised qualification

The Programme

- Provides **specialist academic and professional training** in actuarial science
- Prepares students for **professional examinations to Associateship level**
 - UK** Institute and Faculty of Actuaries
 - North America** Casualty Actuarial Society and Society of Actuaries
- Accredited by professional body** where graduates will be exempted from various professional examinations (subject to re-accreditation)
 - UK** Institute and Faculty of Actuaries
 - North America** Society of Actuaries
- Offers courses with Validation by Educational Experience (VEE)**
 - North America** Casualty Actuarial Society, Society of Actuaries and Canadian Institute of Actuaries
- Internship opportunities** with major insurers, actuarial consulting firms, reinsurers, investment firms, auditing firms and management consulting firms



Key Features

- Specialisation:** The ONLY programme in Hong Kong accredited by Institute and Faculty of Actuaries
- Professional recognition:** The Department of Statistics & Actuarial Science has been designated a Centre of Actuarial Excellence by the Society of Actuaries since 2011



Career Prospects

Abundant career opportunities in Hong Kong and mainland China. Graduates develop their careers in major insurance and reinsurance companies, actuarial consulting firms and investment banks

Dr Patrick S C Poon Scholarship in Actuarial Science

5 scholarships are awarded annually to freshly-admitted first year students with outstanding entrance records, each at HK\$50,000 or HK\$60,000

Renewable based on satisfactory performance in each year's study in the programme



Programme website

Bachelor of Arts and Sciences in Applied Artificial Intelligence

Impacts the world with the limitless power of AI

The Programme

- Highlights **diverse AI applications** to help students develop intellectual capacity for meeting new challenges
- Emphasises **problem-based learning** with a wide range of courses: computer science, geography, mathematics, psychology, statistics and urban studies
- Delivers both **fundamental and practical knowledge** in the **design and construction of intelligent systems** to fit into different career settings
- Nurtures students to **transfer interdisciplinary scientific knowledge** into a range of integrated applications and technological innovations



Key Features

Interdisciplinary programme for elite students

Provides formal academic training to elite students who wish to join the AI profession

Featured concentrations



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

Interdisciplinary training

Facilitates a coordinated approach in collaboration with the Faculties of Engineering, Social Sciences and Architecture

Career Prospects

Science and technology, environmental protection, medical informatics, health care, business, banking, finance, urban development, neurocognitive science, etc.



Programme website

6212 BAsc

Bachelor of Arts & Sciences

Nurtures future global leaders to make changes in the interconnected world



The Programme

Designed for intellectually ambitious students who want to **develop a broad set of scholarly skills** in order to become leaders across a diverse range of fields to meet important global challenges

- Social intelligence
- Creative problem-solving
- Analytical skills
- Communication skills
- Ethical responsibility
- Interdisciplinary perspective in understanding our world

Key Features

Interdisciplinary major

Students take disciplinary courses from the 3 Faculties and also elective courses within 2 pathways:

Cultures Societies

Physical World Biological Sciences Human Sciences

Developing intellectual toolkit

Learn how to intertwine knowledge from various disciplines and integrate them together through

- Case studies
- Capstone learning
- Experiences of thought leaders in professions

Co-offered by **3** Faculties

Arts	Social Sciences	Science
Cultural studies History Philosophy Language Literature Creative & Performative Arts	Psychology Sociology Politics Geography Journalism Social work	Physics Chemistry Biology Nutrition Ecology Evolution Planet Energy & Environment

Career Prospects

Wide career prospects in government, management consultancy, public relations, banking, public policy, environmental services, museums, heritage or science writing/ journalism and non-governmental organisation work, etc.



Programme website

6119 BEd&BSc

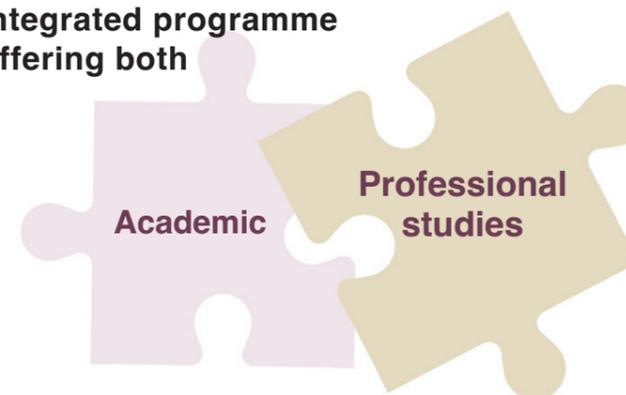
Bachelor of Education and Bachelor of Science

Consolidates scientific knowledge through practical experience and teaching in science

5-year Double Degree Programme

Programme offered jointly by

Integrated programme offering both



The Programme

Requires students to complete 300 credits of course units including:

- Science courses to fulfil the requirement of a Science Major
- Education professional core courses with the Faculty of Education

Key Features

Professional training

- Incorporates a graduate teaching qualification equivalent to a BSc plus a Postgraduate Diploma in Education
- Pedagogy courses and Teaching Practice in Hong Kong secondary schools



Career Prospects

- Thorough knowledge of Science subject, broad understanding of educational issues, and high level classroom expertise prepare graduates for teaching Science at all levels in local secondary and international schools
- Graduates also find employment opportunities in industrial and government sectors in which BSc graduates are often employed



Programme website

Listen *to our* Students

Physics

Brian CHAN

BSc alumnus (major in Physics and Astronomy)

My experience studying physics at HKU provided valuable research and mathematical skills that have been essential in my AI work. My scientific background provides me with the ability to bring rigour and precision to the business world, resulting in the development of better algorithms. Physics also taught me to tackle complex problems by breaking them down, a skill that one finds useful in all aspects of life. Science graduates are highly sought-after, especially if they also possess strong interpersonal and presentation skills.



Environmental Science

Mark CHEUNG

BSc alumnus (major in Environmental Science)

I am dedicated to addressing the climate crisis and promoting climate justice. The Environmental Science Major in the Bachelor of Science programme does not only give me the fundamental knowledge to fight climate change. Its interdisciplinary nature and interconnectedness of climate change across different areas offered me unique perspective and confidence to voice my opinions in international initiatives, such as being the leader of the first university student delegation from Hong Kong to attend the Conference of the Parties (COP27).



Food and Nutritional Science

Vivian CHOI

BSc alumna (major in Food and Nutritional Science)
Master of Science in the field of Food Safety and Toxicology

This Major equipped me with essential technical skills regarding nutrition and toxicology, and the knowledge of human physiology and biochemistry, which are very relevant to my job. Volunteering in a laboratory at SBS since Year 2 was the most rewarding experience during my undergraduate study. The opportunity to participate in human and animal nutritional research consolidated my technical skills and allowed me to find my own niche. After that, I further developed my interest in toxicology and regulatory affairs while I pursued my MSc degree in Food Safety and Toxicology from HKU.



Articulation to DVM@UoMelb

Jason WONG

BSc student (major in Molecular Biology and Biotechnology)

I was genuinely interested in biology since high school, and I was aware that there is an articulation pathway with this degree to Veterinary Medicine (DVM), which further encouraged me to join this programme. The Major provides specialised training in molecular and cell biology and translating basic knowledge into industrial and medical applications, with research opportunities to work in animal labs, where the concept of biosecurity and animal husbandry were first introduced to me. I further explored my interest in the field by volunteering at vet clinics. These experiences fueled my desire to become a veterinarian, leading me to enroll in the DVM programme at The University of Melbourne.



Chemistry

Daisy LEUNG

BSc alumna (major in Chemistry)

As a Chemistry student at HKU, I was exposed to a myriad of opportunities, including gaining experiences through internships. The curriculum is comprehensive and flexible that enables students to develop an independent and logical mindset and acquire meticulous analytical skills. It also allows students to choose their own interest in specific chemistry areas.



Statistics

Feiqing HUANG

BSc alumna (major in Statistics)

Department of Statistics and Actuarial Science provided me with a diversity of opportunities that satisfied my cravings for inspiration and all-round development. There were Overseas Research Fellowship (ORF) Scheme and Career Advising Programme (CAP) tailor-made for statistics and actuarial science students. The accessibility to abundant opportunities was what I was truly grateful for, as it prepared me to embrace the challenge when the time arrives.



Mathematics

Yaochen WU

BSc alumnus (major in Mathematics and minor in Physics)

For me, mathematics is a beautiful language which reveals subtle things in its own way. I received much instruction and help from different members of the Department of Mathematics, in particular during the research projects or seminars. Teachers were always patient and encouraging, yet they were also serious and set challenging goals for me. If you appreciate the beauty of mathematics, you will certainly wish to join this Major where you can find plenty of opportunities and great instructors.



Science Master Class

Clare GUO

BSc&MRes student
(majoring in Ecology & Biodiversity)

With various opportunities offered by this programme, I was able to participate in the ecology research work that I have always been interested in. During my first year at HKU, I assisted with research in ants, butterflies and spiders. Through all those research experiences, my understanding of ecology and biodiversity deepened, which made me one step closer to my dream to be a researcher. Besides, by learning from the Grand Masters in a series of master tutorials, I acquired fascinating transdisciplinary knowledge and methods of conducting research. Furthermore, inspired by their passion for scientific research, I hope one day I can devote myself to ecology research and protect the beautiful yet delicate natural world.



Career Prospects

HKU ranks #10 in QS World Graduate Employability Rankings 2022

Major occupation of HKU Science graduates



Some of our graduates' first employers



Our students pursue further studies in a broad range of science and non-science disciplines at renowned institutions in

28% Graduates pursued further studies in 2020



Applied AI

Raina XIN

BASc(Applied AI) student
Recipient of Future Leaders of the Year Scholarships (HKU)

This Applied AI programme helps you find your own passion in AI, with various concentrations in year 3 that you could choose from, and interdisciplinary and all-round training. I am interested in applying AI to medicine and conducting research about building an AI classifier to perform cardiovascular disease early screening. Leading researchers share their insights in the lectures and spared their time for further discussion after class. There are also plenty of internship and research opportunities available to help us gain more experience.



Science Entrepreneurship

Cameron Xavier VAN BREDA

BSc alumnus (major in Molecular Biology and Biotechnology, minor in Science Entrepreneurship)
Co-founder & CEO of Hollo
2020 Microsoft Imagine Cup World Champion



The Minor in Science Entrepreneurship was truly insightful to share ideas and get feedback from teachers and other students that were thinking about innovation from different disciplines. The programme encouraged and facilitated a lot for us to establish our own start-ups, putting into the eyes of industry players using the university's platform to reach out and connect. Teachers also had driven and grounded the innovation and business potential of students' start-ups.

Admissions Requirements



JUPAS Applicants

Minimum programme entrance requirements:

	EN English Language	中 Chinese Language	+- x÷ Mathematics	Handshake Citizenship and Social Development/ Liberal Studies	Target Elective Subjects: Category A subjects and Extended Module 1 or 2 in Mathematics (M1/M2)
6901 BSc & 6119 BEd&BSc	Level 3	Level 3	Level 2	Attained/ Level 2	Level 3 in 2 subjects [^]
6688 BSc&MRes	Level 3		Level 4		Level 3 in 2 Science [#] or 1 Science [#] + M1/M2
6858 BSc&LLB	Level 5	Level 4	Level 2		Level 3 in 2 subjects [^]
6729 BSc(ActuarSc)	Level 3	Level 3	Level 4		Level 4 in M1/M2 Level 3 in 1 subject
6224 BAsc(AppliedAI)	Level 4 [◇]		Level 4		
6212 BAsc	Level 5 ⁺		Level 2		Level 3 in 2 subjects [▲]

[^] One of the elective subjects must be a Science subject: Biology, Chemistry, Physics, Combined Science, or Integrated Science

[#] Science elective subjects: Biology, Chemistry, Physics and Combined Science

[◇] 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

⁺ Candidates with level 4 in English Language and good results in other HKDSE subjects will be exceptionally considered on a case-by-case basis. If these candidates are admitted, they will be required to take 6 additional credits in University English to complete their degree studies

[▲] Level 3 or above in M1/M2 is preferred

Non-JUPAS Applicants

Students holding non-HKDSE qualifications are considered on an individual basis

HKU Undergraduate Admissions

<https://admissions.hku.hk>



HKU Science | 🔍



**BSc, BSc&MRes, BSc&LLB,
BSc(ActuarSc) & BAsc(AppliedAI):**
Faculty of Science

🏠 www.scifac.hku.hk/prospective/ug
☎ 3917-2683
✉ sci.ug.admission@hku.hk



BEd&BSc:
Faculty of Education

🏠 web.edu.hku.hk/programme/bedbsc_6119
☎ 3917-4659
✉ bedbsc@hku.hk



BAsc:
Faculty of Social Sciences

🏠 www.socsc.hku.hk/basc/
☎ 3917-1212
✉ bascfoss@hku.hk