



SCHOOL OF SCIENCE

UNDERGRADUATE EDUCATION

MESSAGE FROM US

Welcome to the School of Science at HKUST!

At the School of Science, we promote a vigorous and dynamic learning environment with continuous enhancement of our curriculum. Aside from the conventional science programs, we have designed several diverse, interdisciplinary and inquiry-driven programs to meet the ever-changing society's demands.

Outside the classroom, our students enjoy a wide range of learning opportunities such as overseas exchange programs, mentorship and internship programs, social service activities, career advising and personalized support. Such co-curricular programs and activities broaden students' horizons and help realize their holistic development.

Our programs emphasize flexibility and creativity and are structured to equip our students with the skills, knowledge, and confidence to become inspirational leaders

and independent thinkers. With a strong commitment to both teaching and research, they instill in our students the importance of scientific rigor and ethics, while as mentors they serve to inspire and encourage our students to achieve their full potential.

The School's commitment to quality and excellence remains as strong as ever. The School's past successes have established an excellent foundation enabling us to move forward and embrace change. By strengthening our ties with the local community, and working closely with other leading institutions globally, the School further enhances our contributions to science. I hope you will join us as we continue to advance the frontiers of science research and education!

Prof. Shing Yu LEUNG
Associate Dean of Science



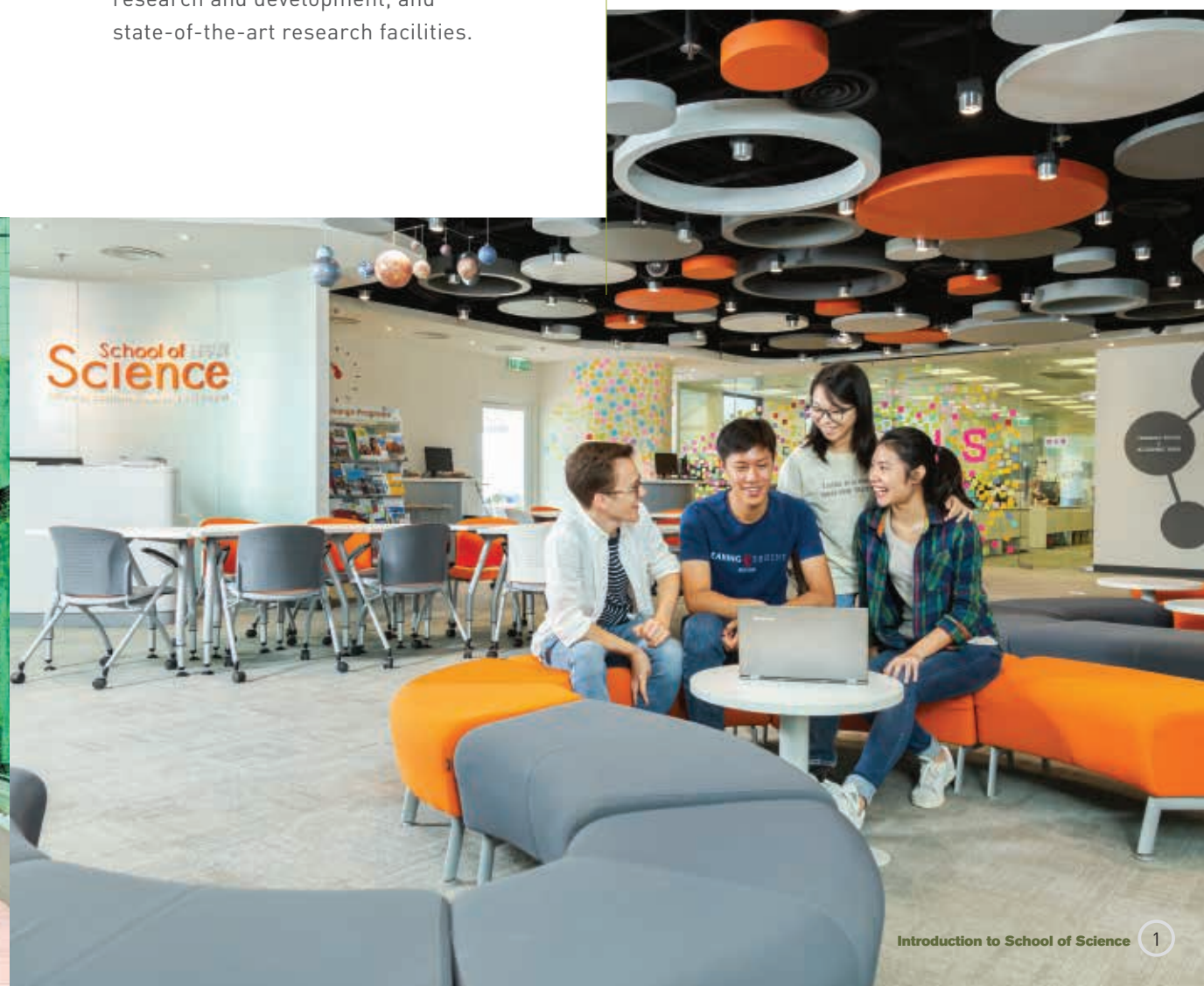
INTRODUCTION TO SCHOOL OF SCIENCE

Join HKUST, a top university in Asia, where academicians gather, educators inspire, creative minds thrive and young leaders bloom. You will grow in this vibrant and exciting community and you will fly high when you leave.

The School of Science is committed to pursuing cutting-edge research, making groundbreaking discoveries and establishing new research paradigms. Our quality and well-balanced education place particular emphasis on grit, curiosity and creativity. We are dedicated to equipping our students with the knowledge and confidence to be inspirational leaders capable of making a difference in society.

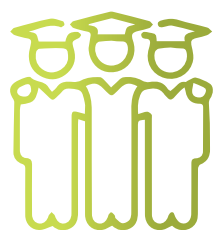
At the School of Science, we are proud of our exceptional academic departments, distinguished faculty, challenging yet inspiring academic programs, achievements in research and development, and state-of-the-art research facilities.

High-quality education requires dedicated educators. The School of Science has recruited outstanding faculty members, many of whom are leaders in their research fields and have already attained international stature in recognition of their scientific contributions. With their different backgrounds and research interests, they bring diverse, interdisciplinary perspectives to address the fundamental questions in science. They have also helped raise the School's research profile to stand out among major global research institutions.



World-class Research Facilities

- State Key Laboratory of Molecular Neuroscience
- Hong Kong Branch of Chinese National Engineering Research Center for Tissue Restoration and Reconstruction
- Biosciences Central Research Facility
- Biotechnology Research Institute
- Brain and Intelligence Research Institute
- William Mong Institute of Nano Science and Technology
- Joint KAUST-HKUST Micro/Nanofluidics Laboratory
- GSK R&D China-HKUST Neuroscience Laboratory
- Sino-German Nano-Analytical Laboratory
- Ocean Research Facility
- Center for Cancer Research
- Center for Chinese Medicine R&D
- Center for Fundamental Physics
- Center for Metamaterials Research
- Center for Quantum Materials
- Center for Scientific Computation
- Center for Space Science Research
- Center for Statistical Science
- Center for Stem Cell Research
- Center for Systems Biology and Human Health
- HKUST Big Data Institute
- HKUST Energy Institute
- Molecular Neuroscience Center
- SSCI-IAS Super-Resolution Imaging Center



2,200+

Undergraduate Students of
40+ Nationalities



200+

Faculty Members

28th

in Materials Sciences
(No.1 in Hong Kong)

30th

in Chemistry
(No.1 in Hong Kong)

37th

in Mathematics
(No.1 in Hong Kong)

50th

in Statistics and Operational Research
(No.2 in Hong Kong)

54th

in Natural Sciences
(No.1 in Hong Kong)

50th

in Physics and Astronomy
(No.1 in Hong Kong)

35th

in Environmental Sciences
(No.2 in Hong Kong)

(QS World University Rankings
by Subject 2022)



PROGRAM OVERVIEW

School-Based Admissions

The School-based programs at the School of Science provide an invaluable opportunity for students to have a deeper understanding of various aspects of science and their personal interests before deciding on their majors. The goal is to offer a more diverse, interdisciplinary, and inquiry-driven undergraduate education to students interested in science. Students can enjoy high flexibility in major and minor choices following their aspirations.

The programs aim at nurturing young scientists who can contribute to the betterment of humankind with advanced scientific knowledge. Students will be equipped with the necessary knowledge and skills to engage in activities demanding scientific thinking, analysis and task execution to excel in their future professions, including research and development, education, manufacturing, logistics, and business and finance.

The School has particularly placed enormous efforts and resources into designing its laboratory and signature courses to nurture students' competency in experimental methods and logical analysis, which are the two indispensable pillars of scientific method.

In addition to rigorous academic training, we give equal emphasis on students' personal development. A wide range of co-curricular activities and training are provided to enrich students' university experience further. These include but are not limited to student exchange, undergraduate research, internship, community services and engagement programs designed only for the School of Science students.



The School of Science offers two general School-based program choices – **Science (Group A)** program and **Science (Group B)** program. The Science (Group A) program is tailor-made for students interested in the fields of physical sciences. The Science (Group B) Program is more suitable for students who are interested in the fields of chemistry and life science. The students will declare their corresponding majors upon completing their first year of studies.

Science (Group A) and Science (Group B)

Under school-based admissions, students admitted into the School of Science upon completion of the first year of study will enroll in one of the following degree programs:

Science (Group A) program:

- BSc in Data Analytics in Science
- BSc in Mathematics
- BSc in Mathematics with an Extended Major in Artificial Intelligence
- BSc in Mathematics with an Extended Major in Digital Media and Creative Arts
- BSc in Ocean Science and Technology with an Extended Major in Artificial Intelligence
- BSc in Physics
- BSc in Physics with an Extended Major in Artificial Intelligence
- BSc in Data Science and Technology*
- BSc in Mathematics and Economics*
- BSc in Risk Management and Business Intelligence*

Science (Group B) program:

- BSc in Biochemistry and Cell Biology
- BSc in Biotechnology
- BSc in Chemistry
- BSc in Biotechnology and Business*
- Dual Degree Program in Technology and Management (BSc & BBA)#

Both Science (Group A) and Science (Group B) programs:

- BSc in Ocean Science and Technology
- BSc in Ocean Science and Technology with an Extended Major in Digital Media and Creative Arts
- BSc in Environmental Management and Technology#
- BSc in Individualized Interdisciplinary Major#

* Joint School Programs

Programs offered by the Interdisciplinary Programs Office

Program Structure

In the first year of study, students will study the Science Foundation courses as well as some of the language, elective and/or general education courses. Upon completion of the first year, the students will declare their corresponding majors offered by the School of Science, as well as the Joint School Programs and the programs offered by Interdisciplinary Programs Office.

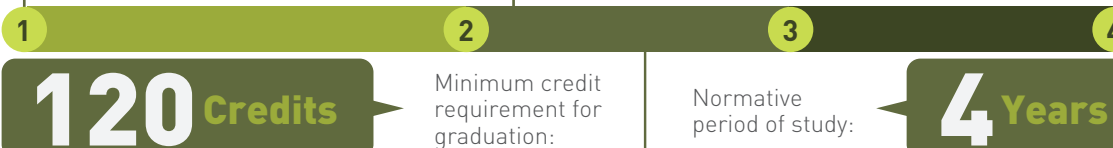
Most science major programs offer different study tracks and options, while providing an opportunity for double majors and minors. The program's flexibility caters to students with diverse academic and career aspirations.

Year 1

Students will enroll in science foundation courses according to their interests and background, as well as courses in other areas to fulfill the University Common Core requirements.

Year 2-4

Students will declare a major program in their second year. They may also consider declaring a minor program to add a secondary area of focus to their studies.



PROGRAM OVERVIEW

Science (Group A) with an Extended Major in Artificial Intelligence

Science (Group A) with an Extended Major in Artificial Intelligence (SSCI-A (AI)) is a program offered by the School of Science starting from the 2021/22 academic year. The program is designed for science students who want to learn solid knowledge in Science disciplines PLUS innovative applications of AI in their major areas.

The world is changing fast; artificial intelligence (AI) has come to define society today in ways we never anticipated. The knowledge of AI can be a perfect supplement to science subjects, which requires a solid mathematical sense and relevant tools to achieve synergy.

The pioneering SSCI-A (AI) program is designed to equip our students for the opportunities and challenges. The curriculum is cross-disciplinary and practical. Students will learn solid knowledge in one of the three relevant major science subjects PLUS innovative application of AI in their major areas. In addition, students will gain cross-disciplinary problem-solving skills and professional insights through a Design Thinking course and Professional Seminars in AI. The Capstone Project+, with strong AI components and sponsorship from the industry, enables students to practice AI applications on real-world problems.

Students should expect to take approximately one additional course per term throughout four years. Upon satisfactory completion, students will earn a "BSc in (Mathematics / Physics / Ocean Science and Technology) with an Extended Major in Artificial Intelligence".

Career Prospects

The knowledge of AI, together with cross-disciplinary problem-solving skills, will provide students with an additional competitive edge in the job market. Students will enjoy career opportunities relevant to their majors plus the opportunities in the latest industry and business developed from AI. Careers include Machine Learning Modelers / Consultants, AI Associates in bank, Deep Learning Scientist, Data Analysts, AI Algorithm Engineer, Environmental Consultants, etc.



International Research Enrichment (IRE)

The International Research Enrichment (IRE) program is designed for students interested in pursuing a research career in science, or broadening their exposure to research during their undergraduate studies. It emphasizes curiosity and grit, which are the essential attributes of a successful career in scientific research.

The IRE program has a similar curriculum structure to the Science (Group A) and Science (Group B) programs. But it distinguishes itself from the regular science program by providing students with the following:

- Free choice of major programs among Biochemistry and Cell Biology, Biotechnology, Chemistry, Mathematics, Ocean Science and Technology and Physics
- Participation in advanced research projects under the supervision of world-class professors
- Opportunities to meet Nobel Laureates and renowned scientists
- Individualized research guidance and mentoring from experienced faculty members
- Undergraduate Research Opportunities Program (UROP)
- Exchange and internship opportunities in renowned foreign universities/research institutes
 - Summer research internship opportunity in foreign universities and institutions
 - Scholarship support for overseas learning trips



Career Prospects

Building upon the premise that exposure to international research environments at an early stage is essential to a fruitful research career, the program offers outstanding science students the opportunities to nurture their research abilities and solidify their discipline-specific knowledge in regular science programs. Most of the graduates will pursue further studies in renowned universities worldwide.

PROGRAM OVERVIEW

Majors and Minors

Major Programs

The School of Science offers the following major programs:

- BSc in Biochemistry and Cell Biology (BCB)
- BSc in Biotechnology (BIOT)
- BSc in Biotechnology and Business (BIBU)¹
- BSc in Chemistry (CHEM)
- BSc in Data Analytics in Science (DASC)
- BSc in Data Science and Technology (DSCT)²
- BSc in Mathematics (MATH)
- BSc in Mathematics and Economics (MAEC)¹
- BSc in Ocean Science and Technology (OST)
- BSc in Physics (PHYS)
- BSc in Risk Management and Business Intelligence (RMBI)³

Remarks:

1. Jointly offered by the School of Science and School of Business and Management

2. Jointly offered by the School of Science and School of Engineering

3. Jointly offered by the School of Science, School of Engineering and School of Business and Management

Minor Programs

Students can enjoy different learning experiences by enrolling in various minor programs within or outside the School of Science.

Offered by	School of Science	School of Engineering
Programs	Actuarial Mathematics	Aeronautical Engineering
	Astrophysics and Cosmology	Big Data Technology
	Biotechnology	Bioengineering
	Chemistry	Design
	Environmental Science	Information Technology
	Mathematics	Robotics
	Physics	Smart City
		Sustainable Energy Engineering
		Technology Management

Offered by	School of Business and Management	School of Humanities and Social Science	Joint Schools / Interdisciplinary Programs Office
Programs	Business	China Studies	Entrepreneurship ¹
		Humanities	Psychological and Behavioral Science ²
		Social Science	Sustainability ³

Remarks:

1. Jointly offered by the School of Science, School of Engineering, and School of Business and Management

2. Jointly offered by the School of Business and Management and School of Humanities and Social Science

3. Offered by the Interdisciplinary Programs Office

The availability of the above minor programs is subject to change.

DATA ANALYTICS IN SCIENCE (DASC)

Program Overview ●●●

We are surrounded by massive data in this big data era. An enormous amount of data is continuously generated and obtained in almost every science, technology, and social science field. Data Analytics in Science is a major program offered by the School of Science starting from the 2021/22 academic year. The program is designed for science students who want to learn data analysis skills and practice them in various science disciplines.

The program introduces our students to various mathematical tools and show them how to make sense of data. Students have a chance to see how data analytics has impacted and revolutionized different fields in science. Students not only learn foundation science knowledge, but also have opportunities to be equipped with competence and skills to analyze, present, and draw sound conclusions from data in context, and ultimately bring these techniques into practice in a data-intensive field in science.



The program offers four tracks:

- Applied Biosciences Track
- Environmental Science Track
- Information Science Track
- Molecular Science and Cheminformatics Track

Courses in the tracks are not meant to train students to be experts in the corresponding fields, but rather to bring them into the context of a domain of data-intensive research in science.

Career Prospects

We see tremendous new applications of data analytics these years. In the business world, techniques from data analytics help draw sharper insights into their customers and improve the operational, manufacturing and computational efficiencies. In Fintech, data analytics can effectively predict the stock price, design new financial products, detect fraud transactions, etc.

Therefore, graduates with training in data analytics are in extremely high demand in today's job market.

MATHEMATICS (MATH)

Program Overview

Mathematics permeates almost every discipline of science and technology. It is not only a tool for understanding the abstract models of real-world phenomena while solving practical problems but it is also the language of commerce, engineering and other sciences such as biology, physics and computing. The BSc in Mathematics program is unique among all universities in the territory.

The program offers seven tracks:

- **Applied Mathematics Track**
- **Computer Science Track**
- **Financial and Actuarial Mathematics Track**
- **General Mathematics Track**
- **Pure Mathematics Track**
- **Pure Mathematics (Advanced) Track***
- **Statistics Track**

*The Pure Mathematics (Advanced) Track is specially designed for mathematically gifted students. Students in this track will study a series of mathematics courses at a deeper level, which better prepare the students to pursue postgraduate studies.

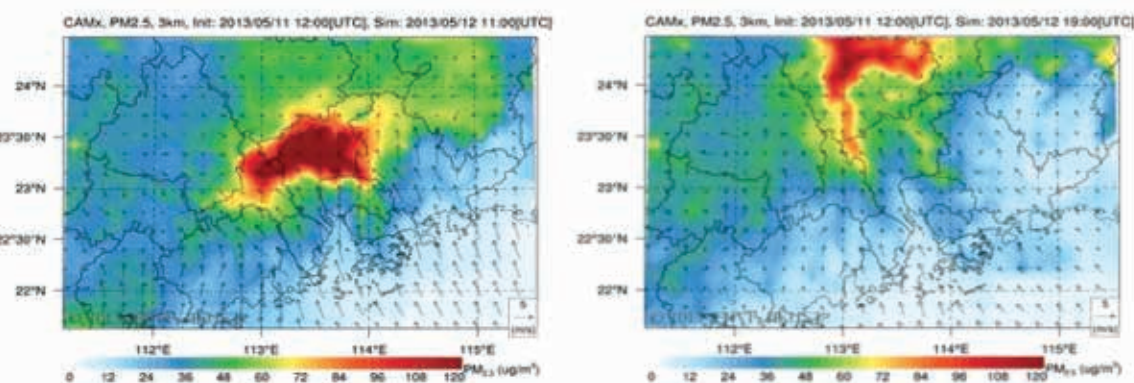
Extended Major options

Subject to quota availability, the students can opt for an Extended Major in Artificial Intelligence (AI) or Digital Media and Creative Arts (DMCA). Extended Major is not a standalone major, but is adhered to a certain majors as expanded choices, enabling students to keep abreast of emerging technology and innovation that are shaping our society in a multi-faceted way.

On top of expertise in mathematics or physics, the students with an Extended Major will acquire multidimensional visions and

knowledge of emerging technologies (AI or DMCA), and can apply innovative technological skills to solve real-world problems in the area of their expertise. Upon fulfillment of the curriculum requirement, the students will be awarded one of the following degrees:

- **BSc in Mathematics with an Extended Major in Artificial Intelligence**
- **BSc in Mathematics with an Extended Major in Digital Media and Creative Arts**
- **BSc in Physics with an Extended Major in Artificial Intelligence**



Career Prospects

About a quarter of MATH graduates pursue further studies, with a majority of them enrolled in well-known institutions abroad. Another quarter of MATH graduates chooses careers in teaching. The remaining graduates are employed in various business and service sectors, including but not limited to administration and management, computer programming, data analysis, accounting, insurance, marketing, sales, purchasing, banking and finance, and academia.

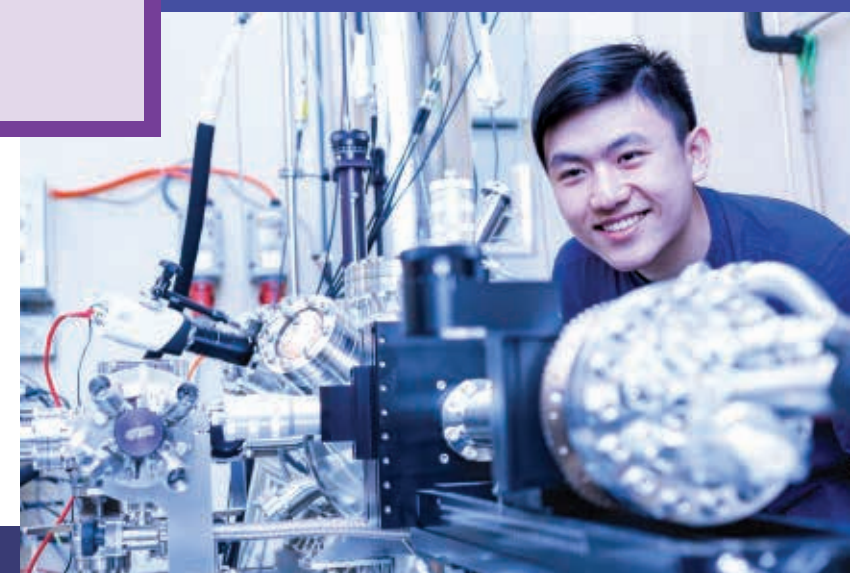
PHYSICS (PHYS)

Program Overview

Physics encompasses everything from the tiniest elementary particle to the ultimate fate of the universe, and provides the foundation for all modern science and engineering. The BSc in Physics program gives students depth and breadth in their studies. Students will learn about exciting topics ranging from quantum computing, superconductivity and nanotechnology to quarks and black holes. The program prepares students for science-related careers, or for further studies in physics and related fields.

The program offers two options:

- **Honors Physics Option** - This option is intended for students planning to enter graduate school after their undergraduate studies at HKUST. The curriculum provides a strong foundation of courses and requires students to complete a research project and thesis in their final year.
- **Physics and Mathematics Option** - This option is tailor-made for students with a strong interest in both physics and mathematics. It is particularly useful for students who plan to pursue future studies in theoretical physics.



Career Prospects

Since physics students are rigorously trained in generic analytical and problem-solving skills, they are well prepared to take up jobs with diverse natures in both the government and private sectors. Students can work in education, research and development, technical sales, forensic science, medical industry, commerce, banking, etc. We offer internship opportunities in local technology companies and secondary schools so that students gain invaluable experience in real working environments. Our best graduates routinely go on for further studies at prestigious overseas universities.

OCEAN SCIENCE AND TECHNOLOGY (OST)



Program Overview

The Ocean Science and Technology (OST) is an integrative program that provides students with a comprehensive foundational understanding of the cross-disciplinary ocean science and technology and also exposure to the latest scientific and technological development related to investigating, conserving and managing ocean resources.

This program covers a variety of courses in different aspects of ocean science, which includes:

- **Foundation:** biological, chemical and physical processes, ecosystem functions;
- **Technology:** instrumentation, data management, pollution tracking;
- **Applications:** marine biotechnology, pollution bioremediation;
- **Socio-economy:** conservation and management of marine resources, fisheries.

A major emphasis of the curriculum is the provision of practicum experience, experiential learning and field trips to enhance students' academic, career and personal development.

Extended Major options

The OST students can opt for an Extended Major in Artificial Intelligence (AI) or Digital Media and Creative Arts (DMCA). Extended Major is not a standalone major, but is adhered to a certain majors as expanded choices, enabling students to keep abreast of emerging technology and innovation that are shaping our society in a multi-faceted way.

On top of expertise in ocean science and technology, OST students with an Extended Major in AI will acquire the latest knowledge in this emerging technology and learn to apply the knowledge to solve real-world problems such as the predicting the occurrence of harmful algal bloom and predicting climate change. The Extended Major in Digital Media and Creative Arts is for students who are interested in a career pathway that emphasizes the creation of multimedia contents for promotion and public education in environmental conservation and environmental protection. Upon the fulfilment of the curriculum requirement, the students will be awarded one of the following degrees:

- BSc in Ocean Science and Technology with an Extended Major in Artificial Intelligence
- BSc in Ocean Science and Technology with an Extended Major in Digital Media and Creative Arts

Career Prospects

Globally, the importance of the marine environment in the provision of natural resources and services to human society will continue to increase. In Hong Kong, as a coastal city within the biologically diverse Western Indo-Pacific region, the demand for talents and professionals in public, NGOs and private sectors is higher than ever due to the need to conserve our marine environment amidst urban development.

Students of the BSc in OST program will be well-equipped with the skills and knowledge to engage in higher studies and career paths in a number of sectors related to the investigating, conserving and managing ocean resources, including ocean exploration, marine biotechnology, research and development in the private sector and academia, environmental consultancies, government agencies, etc.

CHEMISTRY (CHEM)

Program Overview

Students of BSc in Chemistry will study all aspects of chemistry and related disciplines. General areas covered include analytical chemistry, inorganic chemistry, organic chemistry, and physical chemistry. Specialized areas include environmental chemistry,

medicinal chemistry, biological chemistry, polymer chemistry, materials chemistry including nanostructures, advanced instrumentation, and advanced computational / theoretical chemistry.

The program offers four options:

- Biomolecular Chemistry Option
- Environmental and Analytical Chemistry Option
- Materials Chemistry Option
- Pure Chemistry Option

This program provides excellent general training in both analytical thinking and problem-solving skill. The curriculum, which includes basic training in analytical, inorganic, organic, and physical chemistry and modern laboratory techniques and skills, has been specifically designed to allow students maximum flexibility in determining the extent of their specializations.



Career Prospects

Our graduates have gone on to become chemists or scientific officers in government laboratories or private accredited laboratories, school teachers, environmental consultants, chemical engineers, Chinese medicine researchers, pharmaceutical lab chemists, marketing representatives for lab equipment suppliers and computer companies, scientific patent officers, scriptwriters, reporters for science journals or magazines, as well as postgraduates that pursue higher degrees in both local and overseas universities.

Biochemistry and Cell Biology (BCB)

Program Overview

Students will study how biomolecules, which are the fundamental building blocks of all living organisms, work harmoniously in different contexts with reference to relevant research. The curriculum is built upon courses that cover fundamental concepts and principles of Biochemistry and Cell Biology (BCB). As students progress through the program, they will take more advanced and specialized elective courses that empower them to explore and develop their own interests in life science. BCB students will also have the option of engaging in intensive practical training and research projects.

The BCB program allows students to build a solid foundation in different aspects of modern biochemistry, cell biology, molecular biology and genetics. It also nurtures students who are motivated to pursue postgraduate training and research careers in both academic institutions and industrial companies.

Career Prospects

BCB graduates will have a broad range of career options. Students will be well-prepared for postgraduate research studies and future employment opportunities in academic, medical and industrial settings. In addition, BCB graduates will also be fully equipped to pursue other vocational careers in private and government sectors requiring a life science background, including healthcare, biotechnology and education. With recent advances in technology and social expectations driving an expansion in career and employment opportunities, students will have exceptional prospects to pursue their careers in life science.



Applied Bioscience Track

This track aims at enhancing students' learning through a range of experiential learning or project-based courses. Students will be provided with ample opportunities to tackle real-world problems in biotechnology, formulate experimental plans, devise biotechnological solutions, and transfer practical knowledge to society.

Entrepreneurship Track

This track aims at enhancing students' vision and knowledge of entrepreneurship through various co-curricular activities. Students will be trained to formulate integrated commercial solutions to academic and real-world problems in biotechnology. Students will also be encouraged to enter internal and external entrepreneurial competitions and turn their ideas into commercial practice.

Career Prospects

The Biotechnology major equips students with various basic and specific biotechnological knowledge to meet the growing demand in the markets of pharmaceuticals, agriculture, business and education. The underlying objective of the major is to provide a fresh supply of capable workforce to propel the local and regional biotechnology industry. Career opportunities are amply available in both the private and government sectors.

Biotechnology (BIOT)

Program Overview

The Biotechnology (BIOT) program is designed to cover the research and development of biotechnology products and services, including medicines, cosmetics, health supplements and genetic diagnostics. The program provides students with theoretical and practical knowledge of the latest biotechnological developments, with a particular focus on the applied aspects of life science. The curriculum also requires a basic understanding of concepts across various biological spectra including biochemistry, cell biology, molecular biology, microbiology and genetics. Starting from the 2023 intake, BIOT students will follow one of two study tracks that have distinct strengths.



Biotechnology and Business (BIBU) ●●●

Program Overview

The Biotechnology and Business Program (BIBU) is jointly offered by the School of Science and the School of Business and Management. It aims to groom students with a hybrid interest in both biotechnology applications and business operations. It offers students a broad-based learning experience that encompasses essential life science and biotechnology knowledge, as well as complementary business know-how, including accounting, finance, economics, marketing, operations management, etc. It also further enhances students' creative and critical thinking abilities while helping them develop a global outlook on biotechnology development and applications, thereby laying a solid foundation of knowledge and skills to develop, manage, and market biotechnology initiatives.



Career Prospects

The holistic BIBU experience prepares students to excel in any career path they aspire to. This program offers rigorous training in both biotechnology and business, which is designed to prepare students for successful leadership positions within the biotechnology industry. Potential employers include multinational pharmaceutical companies, vendors of biotechnology products / services, consulting firms focusing on the biotechnology and pharmaceutical industries, etc. A wide range of career opportunities is available in both the private and public sectors.

Mathematics and Economics (MAEC)

Program Overview

The Mathematics and Economics (MAEC) program is jointly offered by the School of Science and the School of Business and Management of HKUST. The program provides students with solid training in the fundamental theories of both mathematics and economics. The curriculum equips students with quantitative reasoning skills, conceptual understanding, and the ability to communicate in mathematics effectively and the language of economics and social sciences.

The complexity and technical aspects of contemporary economic problems exhibit a strong synergy between mathematics and economics. The program offers an advantage to students who would otherwise major in mathematics or economics alone. This interdisciplinary degree is suited to students who seek the option of taking a quantitatively oriented job in the finance industry or who intend to pursue postgraduate study in applied mathematics, economics, business or related areas such as operations research or management science.

Career Prospects

Career opportunities in the banking and finance industry in Hong Kong are promising for those capable of applying mathematical tools to understand the financial markets and make economic forecasts. Graduates with an interdisciplinary degree are increasingly valued and needed in the job market, and tend to have more diverse career options than those majoring in Mathematics or Economics alone. A number of MAEC alumni have joined top-ranked financial institutions and multinational firms. Our MAEC graduates are equipped with sufficient background for entry into advanced / professional degree programs in economics, financial mathematics, statistics, and other business-related fields. Recent graduates have been admitted to PhD / Master's programs at leading universities worldwide.



Data Science and Technology (DSCT)

Program Overview

The Data Science and Technology (DSCT) program is jointly offered by the School of Science and the School of Engineering. Various business and industry sectors have a huge demand for data specialists / scientists to conduct an in-depth analysis of the valuable datasets that they have collected during the business process. Data Science and Technology graduates are a perfect fit for these emerging job opportunities in the market. The program will equip students with various mathematical tools, data analytical skills and IT technologies to make sense of data obtained from various sources.

DSCT students use a wide spectrum of mathematical and IT tools to develop basic knowledge of data analysis and programming skills that will allow them to understand and analyze actual phenomena of massive data obtained from rich information sources. Additionally, students will receive hands-on experience and expert guidance to acquire practical skills in data analysis that will provide them with an excellent step in their future. Areas of expertise in this program include machine learning, classification, clustering, data mining, database management, cloud computing, data visualization, etc.

Career Prospects

Many data specialist / scientist positions are created every day in various business and industry sectors to make use of the massive datasets collected there. Graduates of DSCT are in high demand in today's job market, and most of them will be employed in those sectors such as IT, engineering, and finance. There will be other career opportunities such as management and sales, etc.



Risk Management and Business Intelligence (RMBI)

Program Overview

Risk management and business intelligence are vital parts of a company's strategic planning and decision-making in the globalized era. The BSc in Risk Management and Business Intelligence (RMBI) program integrates training in both risk management and business intelligence and addresses their market needs in a single undergraduate program.

Combining the strengths of HKUST's School of Business and Management, School of Engineering, and School of Science, the cutting-edge BSc in RMBI program incorporates a curriculum that caters to market needs with an emphasis on quantitative techniques and business knowledge, encompassing:

- Understanding of risks in financial institutions and other firms, including market risks, credit risks, operational risks, and business risks
- Mathematical models and methods of assessing and minimizing risks
- Data / text mining methods and advanced technologies to analyze and manage the increasingly large volume of business data available for decision-making



FinTech Option

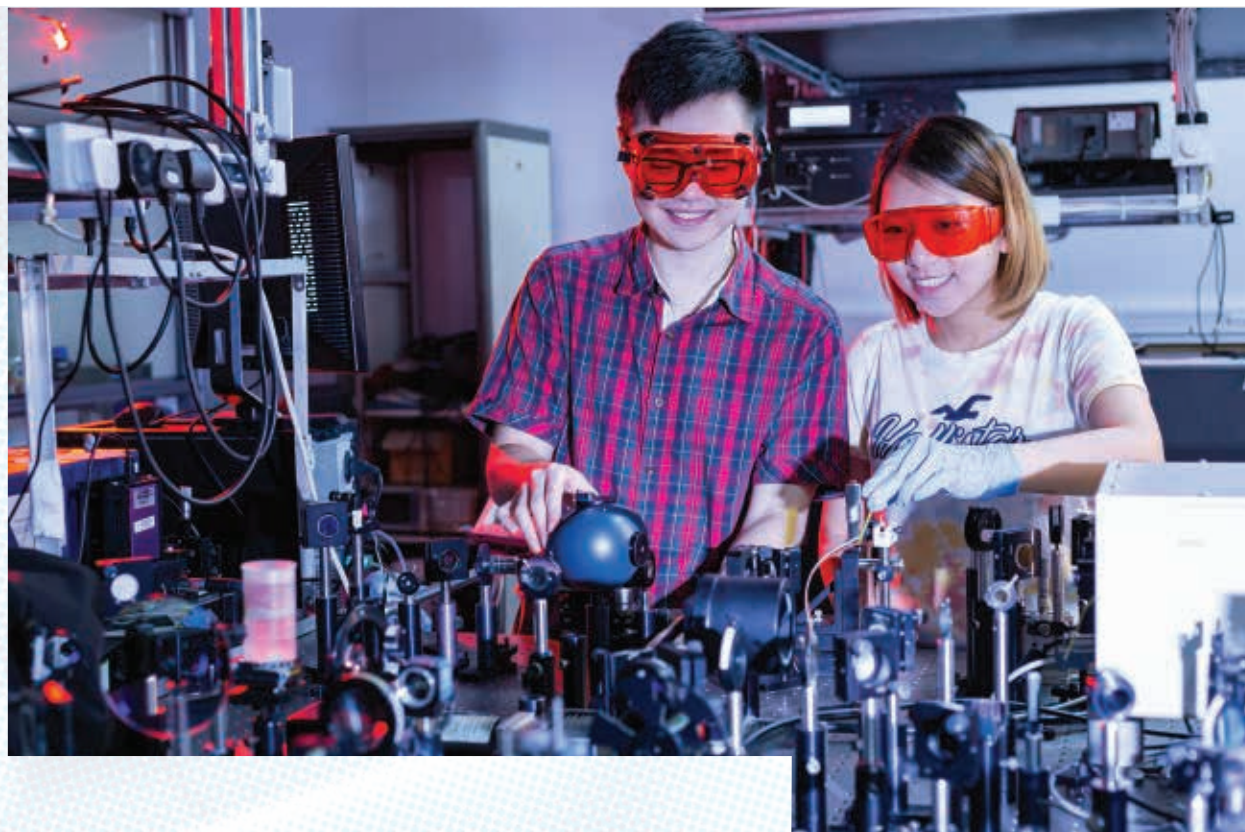


An academic option "Financial Technology" is provided to students who wish to pursue a deeper understanding of financial technology and its engineering foundations, cryptoventures and the latest development in the area.

Career Prospects

RMBI graduates are well-educated for a wide range of functions and industries including analysts and consultants in the banking sector, asset management, accounting and audit firms, management consultancies and IT advisory, etc.

RESEARCH EXCELLENCE



Department of Physics ●●●

Research Foci

- Cold Atoms, Optics and Quantum Information
- Condensed Matter Experiments and Advanced Materials
- Condensed Matter Theory, Statistical and Computational Physics
- Particle Physics and Cosmology
- Soft Matter and Biological Physics
- Metamaterials, Photonic and Phononic Crystals

Research in the Department covers a broad range of topics, from the smallest to the largest scale, with complementary strengths in theory and experiment. Faculty members work both independently and collaboratively, in affiliation with the William Mong Institute of Nano Science and Technology, the Center for Metamaterials Research, the Center for Quantum Materials, the HKUST Energy Institute, the Center for Scientific Computation, and the Institute for Advanced Study's Center for Fundamental Physics and Center for Quantum Technologies.

Department of Mathematics ●●●

Research Foci

- Algebra and Number Theory
- Geometry and Topology
- Analysis and Differential Equations
- Applied and Computational Mathematics
- Financial Mathematics
- Probability and Statistics
- Data Science

The Department enjoys a range of up-to-date facilities and equipment for teaching and research purposes. Apart from a computer laboratory with 40 high-end desktop computers, there is also a High Performance Computing Laboratory equipped with 200 powerful CPU- & GPU-based computer servers having 200 TFLOPS aggregate processing power and 1 PB storage capacity. By making use of these powerful computing facilities, our faculty and students are able to solve computationally intensive problems in their innovative research projects so that they can stay at the forefront of their research fields.



RESEARCH EXCELLENCE

Department of Chemistry ●●●

Research Foci

- Analytical / Environmental Chemistry
- Synthetic Chemistry
- Materials Chemistry
- Physical / Computational Chemistry
- Chemical Biology / Medicinal Chemistry

The Department is well equipped with modern laboratories and state-of-the-art instruments. In addition, the Department has international links with major chemical industries and has played a key role in setting up university-wide collaborations involving universities, research institutions and companies in Hong Kong, Mainland China, Japan, Europe and the US.



Division of Life Science ●●●

Research Foci

- Cellular Regulation and Signaling
- Cancer Biology
- Developmental Biology
- Molecular and Cellular Neuroscience
- Macromolecular Structure and Function
- Biotechnology and Medicinal Biochemistry

Faculty members working in these areas form coordinated research teams. Synergy between research laboratories empowered multi-disciplinary investigation of biological problems. At the same time, it creates a stimulating atmosphere in which students experience the challenge of modern research through direct participation.

The Division is excellently equipped for research in a broad range of areas. The Laboratory Animal Facility provides a centralized and modern facility for animal studies. Centralized state-of-the-art facilities for biochemical and cellular studies are provided by the Biosciences Central Research Facility.

Department of Ocean Science ●●●

Research Foci

- Marine Ecology
- Oceanography
- Ocean Technology

The Department emphasizes building cross-disciplinary research and educational programs in Ocean Science and Technology. Our primary study sites include the estuarine environment of the Pearl River, the coastal bays of Hong Kong, and the deep sea in the Pacific Ocean and beyond.

The Ocean Research Facility on campus is a key item of infrastructure supporting our marine research, while the Environmental Central Facility provides a range of equipment and technology commonly used in water and atmospheric environmental research.



Academic Advising

The Office of Academic Advising and Support is established in the School of Science to provide students with a general orientation to the university, initial advice on course selection and consultation on the choice of major. The Office provides guidance to students on academic-related issues through –

- Providing accurate and relevant information about academic programs and other educational experiences available to them;
- Providing one-on-one consultation on the choice of major and possible double major / major-minor combinations to suit their interests, abilities and goals;
- Explaining university regulations, graduation requirements, and institutional policies and procedures;
- Enhancing their awareness of available educational resources on campus such as internship, mentorship, undergraduate research and exchange programs;
- Encouraging the use of institutional and community services in support of academic success.



MAGNET (Make A Great Net)

MAGNET is a peer mentoring program in the School of Science that aims to help freshmen make a smooth transition to HKUST by providing a supportive environment in which they will meet diverse students with similar experiences and interests. Peer mentors are selected senior-year students from different science disciplines, who are interested in assisting new students in overcoming the obstacles they may encounter during their first year. The mentor / mentee connection provides an academic, cultural, and social support network for students seeking academic excellence and satisfaction.

First Year Course – CORE1905 Habits Mindsets and Wellness

CORE1905, led by faculty advisors, advising staff and peer mentors, is a one-year course designed to help new students adapt to university life through advising, sharing and discussion, and applying the science of well-being to enhance their personal and interpersonal development. It also aims to foster their self-understanding and confidence as young adults who can fully enjoy their university education and career thereafter. It includes lectures, self-directed experience, community meetings and other activities such as Science Majors Week, Alumni Sharing, etc., to help students adapt to university life, explore different majors and connect with faculty and other students.



Student Development Programs – Science for Success

University Student Sponsorship Program in Wildlife Conservation (USSP)

Collaborating with the Ocean Park Conservation Foundation Hong Kong, selected students will be fully sponsored to travel overseas to gain first-hand research experience, while contributing to wildlife conservation.

MenTernship Program

Students joining the MenTernship Program will be offered opportunities to shadow social dignitaries, through social encounters and internship experience in the mentors' respective fields.

Overseas Cultural Exploration and Service Trips

To raise students' awareness of serving the community, service-learning trips, such as going to Cambodia and Sri Lanka, have been held for students. Students will be involved in various service projects and given opportunities to have cultural exchanges with the local people. The trips will also include visiting the heritage sites in the countries.

Cultural Study Tours to Mainland China

Our School has established close relationships with renowned institutions such as China Pharmaceutical University, Tsinghua University and Sichuan University to organize various study tours, encouraging students to step out of their comfort zone to experience a glimpse of Chinese culture.

SCI/NUCLEUS Team

SCI/NUCLEUS is a student-driven science busking team established to mobilize Science students, alumni and staff to promote pop science and serve the community together.

"Knowledge Without Border" Series

To broaden students' horizons beyond their major studies, seminars and workshops on a wide spectrum of topics covering culture, politics, economics, and environment, will be held on a regular basis.

Internships and Research Opportunities

Career Training and Internship Opportunities

Students will be provided with an array of career training activities including one-on-one career consultation on exploring their career goals, mock interviews with HR experts from different industries, and firm visits. The School will also provide individualized services such as referrals to partner companies to help students find internship experiences and graduate jobs.



Undergraduate Research Opportunities Program (UROP)

UROP is a HKUST signature program designed to provide undergraduate students with exciting opportunities to engage in academic research. In Fall, Spring and Summer semesters, lists of UROP projects are open for student application. The qualified students work closely with faculty members on the research and scholarly activities, thereby develop insightful perspectives on their areas of interest and advance the frontiers of knowledge. Students are also most welcome to propose a project title to a faculty member if he or she agrees to do the supervision.

Successful completion of UROP courses may lead to stipends as encouragement or credits to fulfill part of the program requirement. For UROP project papers / posters accepted for presentation at an academic conference, or accepted by an international journal, various sponsorships will be conferred to the UROP students. Students who exhibit excellent research performance may also be nominated for an award, in recognition of their contribution to research and innovation at HKUST.



Student Exchanges

Currently, the School has over a hundred exchange partner institutions covering regions including Australia, Europe, North America, Southeast Asia and Mainland China, etc. Students joining the exchange program will be offered opportunities to experience overseas learning and new cultures for an entire semester.

EUROPE

Austria

MCI Management Center Innsbruck

Denmark

Technical University of Denmark
University of Copenhagen

Finland

University of Helsinki

France

CY Cergy Paris University
Ecole Polytechnique
Universite Grenoble Alpes

Germany

RWTH Aachen University
Technische Universitaet Darmstadt
Technische Universitaet Muenchen
University of Stuttgart

Ireland

National University of Ireland, Galway
Trinity College Dublin

Luxembourg

University of Luxembourg

Netherlands

University of Groningen
Utrecht University
Wageningen University

Norway

University of Bergen

Poland

Jagiellonian University

Russia

National Research University Higher
School of Economics

Sweden

Chalmers University of Technology
KTH Royal Institute of Technology
Lund University

Switzerland

Ecole Polytechnique Federale de
Lausanne
ETH Zurich
University of Zurich

Turkey

Sabanci University

United Kingdom

Cardiff University
Lancaster University
Newcastle University
The University of Manchester
The University of St. Andrews
University of Aberdeen
University of Birmingham
University of Bristol
University of Exeter
University of Glasgow
University of Leeds
University of Southampton
University of Strathclyde
University of Sussex

OCEANIA

Australia

Monash University
The Australian National University
The University of New South Wales



NORTH & LATIN AMERICA

Canada

The University of British Columbia
University of Manitoba
University of Toronto
University of Waterloo

Mexico

Tecnologico de Monterrey

United States

Columbia University
Cornell University
Georgia Institute of Technology
Indiana University
Iowa State University
Lehigh University
Mills College

Missouri University of Science and Technology
Northwestern University
Rice University
Rutgers, The State University of New Jersey
Smith College
Stony Brook University
University of California

University of Florida
University of Massachusetts Amherst
University of Notre Dame
University of Virginia
University of Wisconsin-Madison



ASIA

Japan

Kyoto University
Kyushu University
Osaka University
Sophia University
The University of Tokyo
Tohoku University
Tokyo Institute of Technology

Korea, Republic of

Ewha Womans University
Korea Advanced Institute of Science
and Technology
Korea University
Pohang University of Science and
Technology
Seoul National University
Ulsan National Institute of Science
and Technology

Mainland China

Beihang University
Beijing Institute of Technology
Fudan University
Harbin Institute of Technology
Nanjing University
Nankai University
Peking University
Shanghai Jiao Tong University
Shanghai University of Finance and
Economics
Tianjin University
Tsinghua University
University of Chinese Academy of
Sciences
Xi'an Jiaotong University
Zhejiang University

Malaysia

Universiti Putra Malaysia

Philippines

Ateneo de Manila University

Singapore

Nanyang Technological University
National University of Singapore
Singapore University of Technology
and Design

Taiwan

National Central University
National Chengchi University
National Yang Ming Chiao Tung
University
National Taiwan University
National Tsing Hua University

Vibrant Students

HKUST has provided me with various research opportunities, which allow me to explore different fields, including optical microscopy, nonlinear dynamics analysis, and astronomical instrumentation. In particular, I got the precious opportunity to work with a Physics Nobel Prize Laureate for the astronomical instrumentation project. These experiences have trained me as a future scientist.

CHAN Yan Yan, Carol

BSc in Physics (International Research Enrichment Track),
Class of 2022



It is an incredible experience to study Mathematics and Economics at a world-class university. As a student of the Joint School Program, I can really feel the support from both the School of Science and the Business School, that provides me with ample resources for personal and career development. Studying at HKUST with friendly and reputable professors, staff, and students really makes me feel like I am in the best place to spend my university life.

Gerald GUNAWAN

BSc in Mathematics and Economics, Class of 2023



Being enthusiastic in cutting-edge chemistry research, I found the IRE track is a great option for me, as it offers opportunities for me to reach out to multiple research groups in HKUST and work on long-term projects. The exchange and overseas research internships further levitate the science learning experience.

ZHAO Yiran

BSc in Chemistry (International Research Enrichment Track),
Class of 2023

My favourite part of HKUST's Chemistry is its study options. Depending on your interest, you may declare an option from four different choices. Having my interest in biosensors and detection device chemistry, I devoted my last year to further studies in biomolecular and materials chemistry. Learning both synthesis and characterization of biomolecules, semiconductors and nanomaterials, I am happy to get skilled in the specific area of my interest.

Subin LEE

BSc in Chemistry, Class of 2022



I've had many opportunities ever since HKUST, but one highlight would be the exchange program to the University of Waterloo in Canada. Apart from this, I have joined research projects supervised by computer science and math professors and worked alongside postgraduate students. As a sweet bonus, I got the internships opportunities in Indonesia and Hong Kong. Overall, the math program and the university have given me the tools required for my early career, and I only need to utilize them!

Angeline CANDICE

BSc in Mathematics, Class of 2023



The Environmental Science program provides students with an insightful learning experience in various multidisciplinary academic fields. The Department provides me with plenty of opportunities to work in laboratory and field settings, from which I learned how to devise solutions to environmental issues. Besides, students can intern at NGOs, testing laboratories or government departments, gaining hands-on experience and advancing their careers in the environmental and sustainability-related industries.

Tiffany YEH

BSc in Environmental Science, with an additional major in Chemistry, Class of 2022



STUDENT LIFE

Vibrant Students

During my time at university, I did two internships: Cardiac Rhythm Management Internship and Ocean Park Dolphin Research Internship. I have worked with a wide range of patients, from children with dental diseases to adults and the elderly with abnormal heart rhythms. From several clinical work experiences, I developed a passion for the healthcare sector. These professional experiences have helped me affirm my career aspiration to work in the medical field.

Ivy TSANG

BSc in Biochemistry and Cell Biology, Class of 2022



I got my first internship opportunity in the summer of my sophomore year and gained experiences on conducting several projects and research with the professors. Besides, I joined an exchange program held by the School of Science in my junior year, which broadened my horizons and utterly changed the way I viewed the world. For me, studying DSCT at HKUST is one of the best choices I've ever made!

Daniel KAO

BSc in Data Science and Technology, with an additional major in Computer Science, Class of 2023



Through the Undergraduate Research Opportunities Program, internships in academic research laboratories, as well as final year project, I have the opportunities to work with professors, conduct independent research, and pursue my interest in cancer biology and cell biology. I have learnt how to be curious, creative, and collaborative – the fundamental qualities of a researcher.

Yashvi SHAH

BSc in Biotechnology, Class of 2022



At HKUST, you can find many enrichment activities and exchange opportunities. I got the chance to intern at Wetland Park and learn about managing wetland and escorting eco tour. Besides, the field trips, lab works and faculty guidance have broadened my horizons, and helped me prepare for the career in environmental consultancy.

Winsum TAM

BSc in Ocean Science and Technology, Class of 2023

With professional education in both business and science, I have been offered a wide range of opportunities to develop my potential, explore career interests and build up relationships. The scientific thinking, business mind and interdisciplinary knowledge and skills that I have acquired are transferrable across job functions and industries.

Heidy CHEUNG

BSc in Biotechnology and Business, Class of 2022

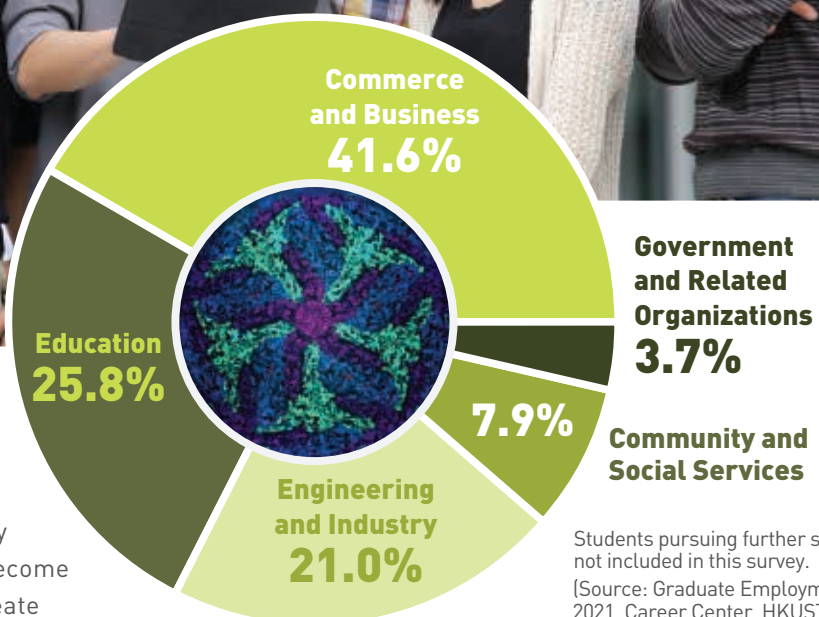
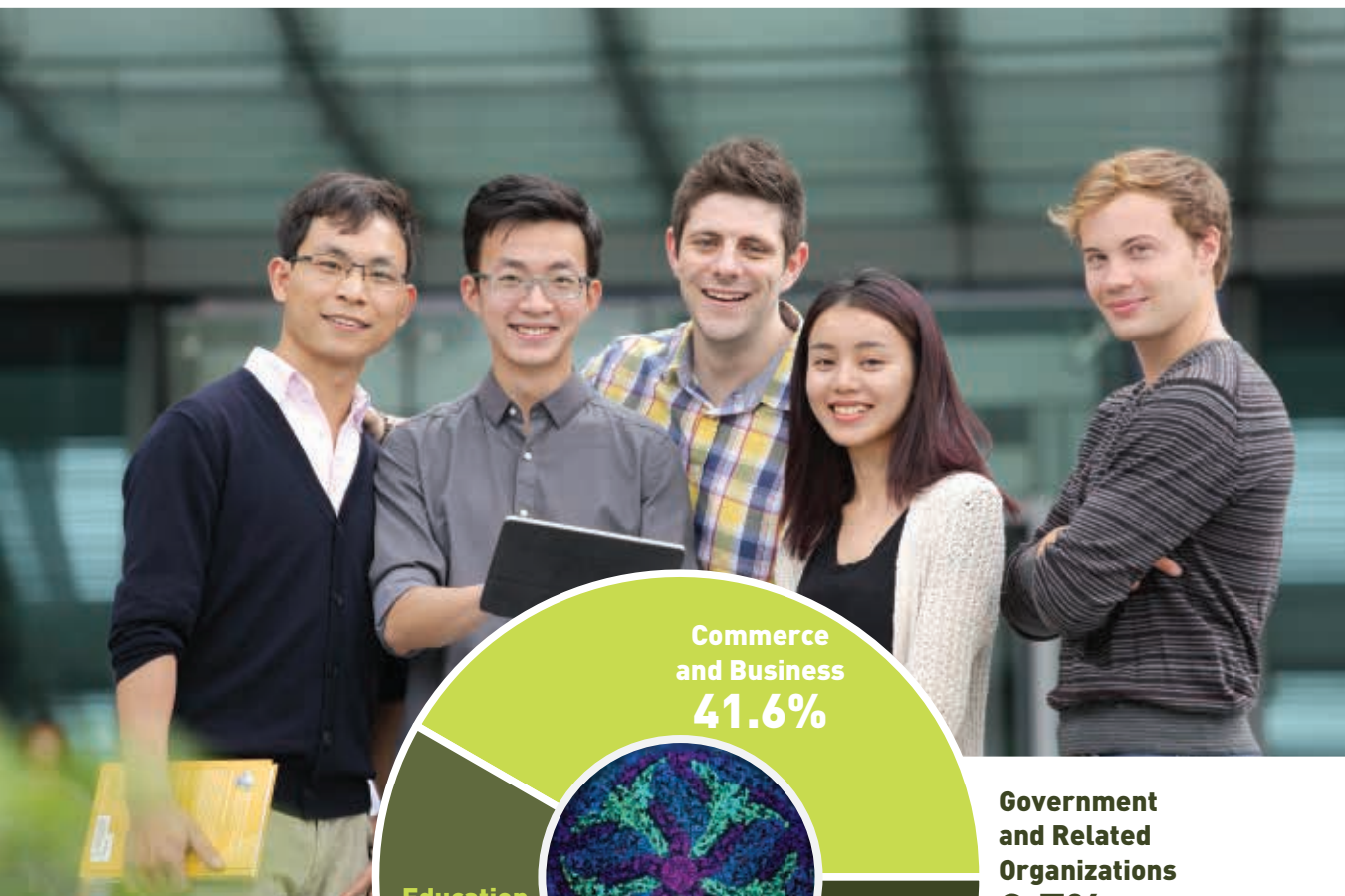


The Biochemistry and Cell Biology program at HKUST is a fantastic opportunity for those who would like to get involved in research. The faculty is friendly, approachable, and helpful. They are all experts in their fields and are always willing to discuss with students. The program provides enough flexibility for everyone to explore their interests.

MA Chengkun

BSc in Biochemistry and Cell Biology, Class of 2022

CAREER PROSPECTS



Our programs not only nurture students to become scientists who can create academic knowledge for the betterment of humankind, but also train the students to excel in their future professions including industrial research and development, education, manufacturing, logistics, and business and finance.

Each year, however, apart from entering the job market upon graduation, about 25-30% of our science graduates pursue further studies in globally renowned universities, which include:

- California Institute of Technology
- Imperial College London
- ETH Zurich
- University College London
- University of Chicago
- National University of Singapore
- Yale University
- Columbia University
- King's College London
- The University of Sydney
- New York University
- Université PSL
- University of British Columbia
- The University of Queensland
- University of California, San Diego
- Technical University of Munich

HIGH-ACHIEVING ALUMNI



Determined to devote my career to the biotech & pharma industry, I decided to study the Biochemistry program at HKUST.

The undergraduate curriculum has equipped me with a strong foundation of scientific knowledge and allowed me to participate in world-class research projects. Besides, I had the privilege to participate in co-curricular programs offered by the School of Science, which added significant values to my growth.

Graduated with a first-class honor, I pursued my PhD degree at HKUST. At that time, I gained a better understanding of drug development and later joined the pharmaceutical industry smoothly. I am pleased to say, my years at HKUST are memorable and rewarding.

Rigil YEUNG
BSc in Biochemistry
Associate Manager, Zhaoke Ophthalmology



Working as a consultant to diagnose organization problems and devise solutions for our clients might not seem to have direct relationship with math at first sight. However, math forms the backbone of how we approach things here – from dissecting a problem from different

angles, drawing findings from models and analysis, to supporting with multi-dimensional solutions. Most importantly, the determination of a break-through mindset where we keep challenging ourselves and generating new ideas are originated in math, cultivated through every course and learning experience at HKUST.

Manvela LUI
BSc in Mathematics
Senior Consultant at Deloitte



My three years of undergraduate studies have shaped my career path. HKUST had provided me with plenty of opportunities, such as research, service learning, internship, and mentorship. I have tried many of these and

found the area that I want to endeavor the most.

The staff and professors here are always resourceful and ready to help. Nothing is unachievable as my classmates share the same value and work together towards the goals. I would say full of memories and grown-up here!

Tommy LEE
BSc in Chemistry
Generation Chemist at Hongkong Electric



At HKUST I did experience the rigorous academic training and the demanding assessment, which gave me a sense of connection to the competitive business world. HKUST is willing to invest and attract distinctive lecturers and professors. I still miss the chance with honor to attend lectures by

a world-famous biologist. Together with the communion atmosphere with the multicultural community and the beautiful landscape, I strongly recommend HKUST as a good choice for you!

Ronan CHAN
BSc in Biology
Country Manager – Hong Kong and Taiwan, Cardiac Rhythm Management, Abbott Medical (Hong Kong) Limited

HIGH-ACHIEVING ALUMNI

I'm very thankful to HKUST for its rich resources and the opportunities I've been exposed to during my time there. I've developed the most previous friendship, gained international experiences, and seen a much bigger world in those four years. I would like to encourage current students to be brave enough to step out of their comfort zone. For it is always through the most uncomfortable, challenging path, that we grow and mature the most.



WANG Zhien, Abigail
BSc in Chemistry (International Research Enrichment Track)
PhD student at Massachusetts Institute of Technology



It is very fruitful! I have taken advantage of the many research opportunities offered by the IRE program. In the first two years, I was in Prof. Lortz's research group doing experimental research on high-temperature superconductors. I continued my interest in this subject after I went for exchange at Columbia University and worked with a renowned theorist Prof. Andrew Millis on the novel superconductivity of FeSe. After returning to HKUST, I joined Prof. Vic Law's research group and started to train myself to be a condensed matter theorist and get to know the field of topological superconductors. The IRE program has given me plenty of training to be a serious researcher and opportunities to interact with brilliant scholars.

TAM Pok Man, Harry
BSc in Physics (International Research Enrichment Track)
PhD student at the University of Pennsylvania

Coming to HKUST was the best choice I have ever made. I always felt encouraged to step out of my comfort zone and dare to try the impossible – this is how I became the first science student to graduate with double majors in Biochemistry and Cell Biology and Computer Science. My experiences in laboratories and interdisciplinary courses, as well as the exchange at Cornell University broadened my horizons, trained my logical thinking, and prepared me for a PhD studies at Johns Hopkins School of Medicine – something I would have never imagined without HKUST.



WANG Qingyang
BSc in Biochemistry and Cell Biology (International Research Enrichment Track), with an additional major in Computer Science
PhD student at Johns Hopkins School of Medicine



Studying at HKUST is not just about gaining academic knowledge but also about self-exploration. As a nature lover, I chose to study Environmental Science (ENVS) which fulfilled my passion for environmental education. Both the School of Science and the ENVS program have provided me with numerous opportunities, such as overseas exchange, internship, field trips, laboratory works, etc., so I can explore my interests and equip myself for the future.

Lily CHUNG
BSc in Environment Science
MPhil student in Environment Science, Policy and Management at HKUST



Eight years out of college, my passion for mathematics is still unwavering. The training I have obtained at HKUST spans across quantitative skills and critical thinking, which made me a quick learner in my earlier career in finance.

As one of the few science students in my business school cohort, I was able to bring in different perspectives and add values to the class; on the other hand, the unique insights brought by classmates from different backgrounds truly enlightened me and made me a wiser person.

Calvin TONG
BSc in Mathematics
MBA candidate at Cornell University

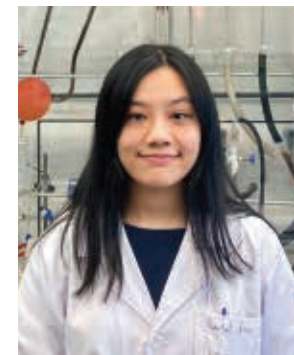
After one year of exploration of science subjects, I chose Mathematics and Economics as my major. With both quantitative and analytical skills as well



as business knowledge, my major equipped me well for postgraduate studies. In addition to the all-round academic training, there are numerous activities such as CEO talks, career advising and training from both Schools. I participated in the MenTernship and HeadStart Program and undertook an internship in Shanghai. Moreover, I was offered an exchange opportunity at University of California, Berkeley where I could exchange ideas with top scholars and students. After returning to HKUST I applied for the position of research assistant at the Department of Economics. With the guidance from the faculty members, I finally got full scholarship from University of California, Santa Cruz for PhD program in Economics. Thankfully, I could continue to pursue my dream of researching on the development of the society. It was amazing!

LI Siqi
BSc in Mathematics and Economics
PhD student in Economics at University of California, Santa Cruz

The IRE program brings together brilliant young scientists who always motivate and support each other. The plentiful research opportunities helped confirm my interest in pursuing a research career. I got my first taste of research from the UROP project in year 2. The exchange study in Korea and the IRE research internship in Japan provided experience of research life in different cultures. The Capstone Project further sharpened my experimental skills. These experiences built a strong foundation for my MPhil and PhD research.



Rachel LIAW
BSc in Chemistry (International Research Enrichment Track)
MPhil in Chemistry, HKUST
PhD student at National University of Singapore



The Biotechnology and Business program offered a wide range of learning opportunities to broaden our international horizons and career perspectives. For instance, I participated in an international program at Stanford University in the summer, and I studied at Korea University as an exchange student for one semester. I also worked in an award-winning Singaporean medical startup company as an intern. These experiences set a good foundation and pave the way to find my career aspiration upon graduation.

Sonia LO
BSc in Biotechnology and Business
Commercial Excellence Leadership Program (CELP) Management Trainee at Bayer

ADMISSIONS

Admissions Routes

Our undergraduate students are drawn from a wide range of academic, cultural and social backgrounds. Our applicants can be classified into the following categories:

- Local applicants applying via JUPAS on the basis of Hong Kong Diploma of Secondary Education (HKDSE) results;
- Local applicants applying on the basis of non-HKDSE qualifications (Local Direct Admissions);
- International applicants;
- Mainland China, Taiwan and Macau (MTM) applicants

The above applicants follow either one of the following admissions routes:

- JUPAS Admissions (JUPAS applicants should submit the application to JUPAS Office)
- Direct Admissions (All non-JUPAS applicants should submit the application directly to HKUST via the Online Application System for Undergraduate Programs)

For details, please visit <https://join.hkust.edu.hk>

For details, please visit <https://join.hkust.edu.hk>

Based on the program-specific formula, HKUST calculates the weighted admissions scores of HKDSE subjects, of which certain subjects are given a heavier weighting.

*Note: The highest scores of at most TWO weighted science electives will be taken in the admissions score calculation.

Note: An interview is a must for admissions to the IRE program. Applications should put the IRE program among the Band A choices to get the interview opportunity.



Admissions Requirements (Direct Admissions)

HKUST School of Science considers the following in making admissions decisions:

- Public examination results and academic performance
- Personal statement
- Non-academic achievements
- Referees' reports
- Interview performance (if applicable)

Applicants with International Qualifications (e.g. IB, GCEAL, SAT/AP, etc.):

In addition to fulfilling the University's general requirements, applicants applying for:

- **Science (Group A) and SSCI-A (AI)** programs must have at least one senior-level subject from Mathematics / Physics
- **Science (Group B)** program must have at least one senior-level subject from Biology / Chemistry
- **IRE** program must have at least one senior-level subject from Biology / Chemistry / Mathematics / Physics

Applicants with Joint Entrance Examination for Universities in PRC (JEE, PRC) Qualification:

- 1) Science stream, or;
For candidates from provinces that do not distinguish between Arts and Science streams are required to take at least one of the following subjects:
 - for **Science (Group A) and SSCI-A (AI)** programs: Physics
 - for **Science (Group B)** program: Chemistry, Life Science / Biology

Applicants with Post-Secondary Qualifications:

Applicants must fulfill either one of the following requirements:

- 1) Completion of an associate degree in a post-secondary institution recognized by HKUST
- 2) Completion of a higher diploma program in a post-secondary institution recognized by HKUST
- 3) Transfer students from local or overseas degree programs: GPA B+ or GPA of 80% is normally expected

Joint School Programs:

For the Biotechnology and Business (BIBU) program, please visit <https://bibu.hkust.edu.hk>

For the Mathematics and Economics (MAEC) program, please visit <https://maec.hkust.edu.hk>

Scholarships

The University and the School of Science offer a number of scholarships to award the top students from all backgrounds, based on academic merits and non-academic achievements upon entry and during the course of study. For details, please refer to <https://sfao.hkust.edu.hk>



HKUST School of Science

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Instagram: [@hkust.ug.science](https://www.instagram.com/hkust.ug.science)

YouTube: HKUST School of Science - Undergraduate Admissions



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