

# Undergraduate Programmes



The College of Science is committed to inspiring and nurturing the next generation of creative and innovative specialists in multiple disciplines of science, who possess a broad vision, and are willing and capable of using their knowledge to serve the community.

The College offers Bachelor of Science programmes in the departments of Chemistry, Mathematics and Physics. A new department of Biostatistics was established in July 2021.



# Undergraduate Programmes at a Glance

## 4-year Undergraduate Programmes

- Bachelor of Science in Chemistry
- Bachelor of Science in Computing Mathematics
- Bachelor of Science in Physics

## Talents Programmes (HK TECH Tiger)

We aim to offer a tailored suite of programme options for students who aim high and who are willing to go the extra mile and make the best of their years at CityU. Secondary school graduates and current CityU first year undergraduate students who meet the eligibility criteria are encouraged to enroll in the following programme options to enrich their learning experience.

- **4-year Enrichment Programme** provides students with exposure to new scientific discoveries and innovative technologies – Global Research Enrichment and Technopreneurship (GREAT)
- **Undergraduate plus Postgraduate Degree Programmes** enable students to benefit from an advanced academic training in both the undergraduate and postgraduate learning as well as interdisciplinary learning.
- **Double Degree Programme** offers students the opportunity to pursue two completely different yet complementary fields of study in five years.
- **Joint Bachelor's Degree Programmes** provide students an international undergraduate educational experience. Students will spend **two years at CityU** and **two years at the partner university**. On completion of the curriculum requirements, students will **earn two bachelor's degrees** – one from CityU, and the other one from the partner university, normally within four years. Our prestigious partners include:



THE UNIVERSITY  
of EDINBURGH

MANCHESTER  
1824

The University of Manchester

# Bachelor of Science in Chemistry

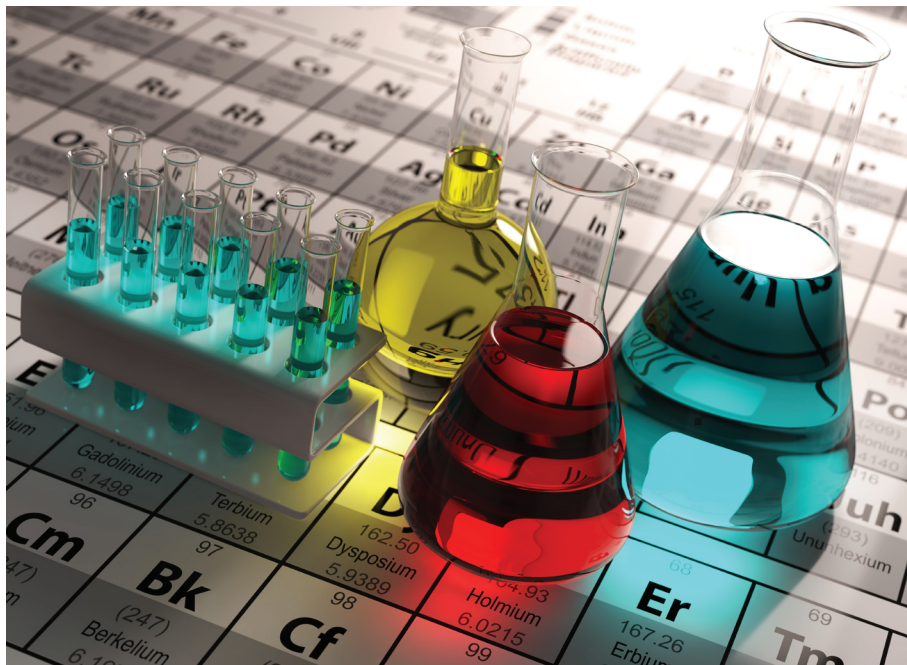
JUPAS Catalogue No.: JS1202

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Department of  
Chemistry

Programme  
information



The major provides students with a firm foundation in chemical sciences with a focus on analytical chemistry, environmental chemistry, inorganic chemistry, organic chemistry and physical chemistry. It is designed to train and produce graduates who are able to pursue a developing career in local and regional industrial, commercial, government, education, and research sectors.

Students will acquire subject-specific knowledge and will be equipped with analytical, numerical, research, communication and problem-solving skills, which can be applied in their future career in area of chemical science, education and technology, chemistry-related business and commodity markets or further study in research studies.

## Stream Options:

- **Comprehensive Chemistry** (accredited by the Royal Society of Chemistry in the United Kingdom)
- **Cosmetic Chemistry** (in collaboration with the Hong Kong Society of Cosmetic Chemists)
- **Forensic Chemistry**
- **Global Research Enrichment and Technopreneurship (GREAT)**

## Joint Bachelor's Degree Programme with the University of Manchester, UK

Students meeting certain requirements can apply for admission to the Joint Bachelor's Degree Programme. After fulfilling their degree requirements, students could be awarded with two bachelor's degrees from CityU and the University of Manchester.

## Undergraduate plus Taught Postgraduate Degree Programme

- Eligible entrants are given an offer into the BSc in Chemistry programme, plus a conditional offer into the self-financing MSc in Chemistry programme.
- Upon successful completion of degree requirements, students would receive 2 separate degrees, i.e. **Bachelor of Science in Chemistry and Master of Science in Chemistry**.

# Bachelor of Science in Computing Mathematics

JUPAS Catalogue No.: JS1206

This major aims to produce graduates in computing mathematics with a strong background of knowledge, skills and tools for mathematical modelling, scientific computation and technical computer software. The major provides students training in the ability to think quantitatively and analyse problems critically. It also emphasises the balance between theories and their applications to practical problems, with a special focus on applied mathematics linked to computational aspects.

There is a high demand for our graduates in the finance and technological sectors, areas including data analysis, business intelligence analysis, mathematical modelling, quantitative business planning, and scientific programming.

## Stream Options:

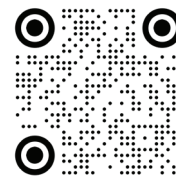
- **Enriched Mathematics**
- **Financial Mathematics**
- **Global Research Enrichment and Technopreneurship (GREAT)**

## Joint Bachelor's Degree Programmes with:

- **Columbia University, USA**
- **University of Edinburgh, UK**

Students meeting certain requirements can apply for admission to the Joint Bachelor's Degree Programmes. After fulfilling their degree requirements, students could be awarded with two bachelor's degrees from CityU and the partner university.

Programme information



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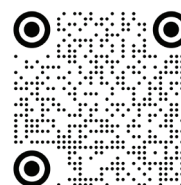
## Department of Mathematics



# Bachelor of Laws and Bachelor of Science in Computing Mathematics

## Double Degree Programme

Programme information



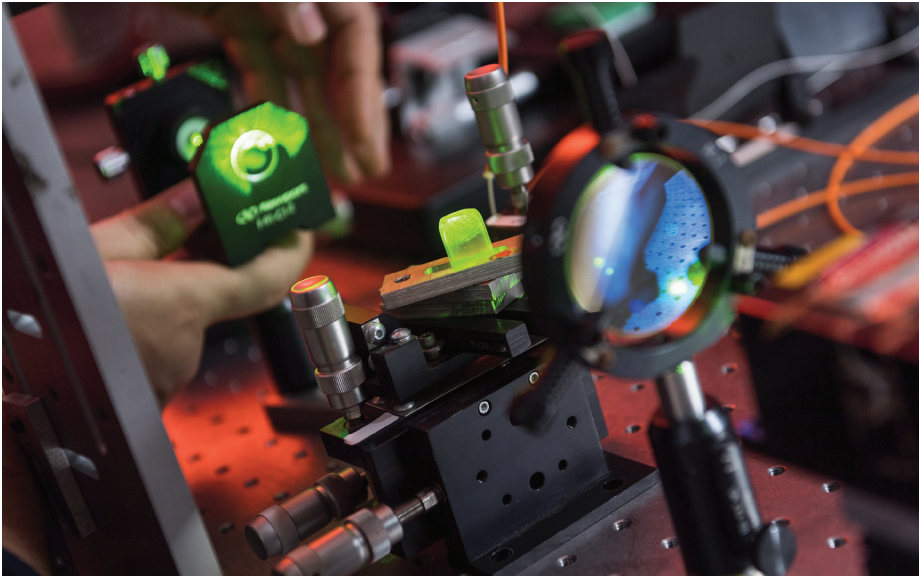
JUPAS Catalogue No.: JS1220

This **law-math double degree programme** is the first of its kind offered by universities in Hong Kong. According to the Report on Manpower Projection to 2027 published by the Hong Kong SAR Government, there is an increasing demand in Hong Kong and the Greater Bay Area for professionals who are equipped with legal knowledge, particularly the rights of intellectual properties and patents, as well as knowledge about new technology and skills. In addition, the legal sector is looking for professionals who have received training on mathematical analysis ability.

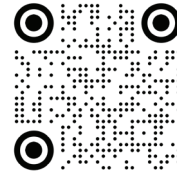
This double degree programme aims to fulfill market needs. By studying courses on law, mathematics and logic, students can acquire critical knowledge such as probability, statistics, quantitative analysis and formal logic. Their ability to analyse and handle related legal cases can enhance their competitiveness in employment market.

# Bachelor of Science in Physics

JUPAS Catalogue No.: JS1208



Programme  
information



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Department of  
Physics

The programme aims to provide students with rigorous training in fundamental physics including classical mechanics, electromagnetism, quantum physics, thermodynamics, mathematical and experimental methods, and computational physics. Students are also introduced to various physics-related special topics such as financial engineering, biophysics, medical physics, optics, and material science / solid-state physics, paving their ways to a diversified career path or further studies. Our graduates have found their role in various sectors including medicine and health care, education, engineering, finance and industry.

Students may take part in the department-based research attachment scheme, which provides them an early exposure to discovery and innovation.

## Stream Option:

- **Global Research Enrichment and Technopreneurship (GREAT)**

## Joint Bachelor's Degree Programme with **Columbia University, USA**

Students meeting certain requirements can apply for admission to the Joint Bachelor's Degree Programme. After fulfilling their degree requirements, students could be awarded with two bachelor's degrees from CityU and Columbia University.

## Undergraduate plus Taught Postgraduate Degree Programme

- Eligible entrants are given an offer into the BSc in Physics programme, plus a conditional offer into the self-financing MSc in Applied Physics programme.
- Upon successful completion of degree requirements, students would receive 2 separate degrees, i.e. **Bachelor of Science in Physics and Master of Science In Applied Physics.**



# Global Research Enrichment and Technopreneurship (GREAT)

JUPAS Catalogue No.: JS1200

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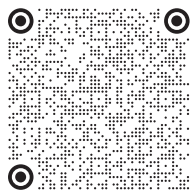
## For elite students interested in scientific research or starting business ventures

This programme exposes students to the world of new scientific discoveries and innovative technologies. Students admitted to the programme will study a tailored common first-year curriculum under the College of Science. After one year of study, they can choose their specialised GREAT streams offered by the Departments of Chemistry, Mathematics and Physics:



College of  
Science

Programme  
information



- Bachelor of Science in Chemistry (GREAT stream)
- Bachelor of Science in Computing Mathematics (GREAT stream)
- Bachelor of Science in Physics (GREAT stream)

### Highlighted Features:

- **Inquiry-based** and research-driven learning
- **Mentorship** by world-renowned professors
- Integrating curriculum with **entrepreneurship** and **business planning**
- **Connection** with industrialists
- **Overseas** academic and research **exchange**
- **Internship** in overseas research institutes or technological start-ups

The GREAT programme is also supported by the Federation of Hong Kong Industries (FHKI), through providing mentorship and internship opportunities for the students.



GREAT students who are eager to start their entrepreneurship journey are highly encouraged to sign up for HK Tech 300, a large-scale flagship innovation and entrepreneurship programme organised by CityU. Upon successful enrolment, all eligible participants will be sponsored for an 8-week training programme to learn how to kick start their entrepreneurial journey from scratch, develop a business plan and deliver a pitch. Seed funds, angel funds, and external funds (up to HK\$100,000, HK\$1 million and HK\$10 million, respectively) will also be made available to potential start-ups.



# Global Outreach & Experiential Learning for Undergraduates

## CityU X Sino Grand Challenges Scholars Program (GCSP)

The GCSP is a combined curricular and extra-curricular program, endorsed by the National Academy of Engineering (NAE) of the United States in February 2009, to prepare students to be the future engineers and scientists capable of solving the 14 Grand Challenges facing the world in this century. The learning components include participation in research projects, entrepreneurship schemes, interdisciplinary courses, service learning activities and overseas exchange programme.



## Internship Scheme

By taking part in the Overseas Internship Scheme (OIS), Industrial Attachment Scheme (IAS) or the Co-operative Education Scheme (CES), students can gain valuable practical work experience, build professional networks, and prepare for their future career.

## Student Exchange

More than 400 partner institutions at Departmental, College or Institutional level are offering global exchange places for our students, from Asia to Australia and Pacific region, Europe and North America.





# Admissions & Scholarships

For more information on admission requirements and entrance scholarships, please visit the Admissions Office's website at <https://www.admo.cityu.edu.hk/>.

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**Find us on:**

