

About the Department

The **Department of Applied Biology and Chemical Technology (ABCT)** is a multi-disciplinary department that embraces chemistry, biology, biochemistry, biochemical engineering and materials science. We focus on providing high quality education and building our strength in basic and applied research to meet the needs of the ever-changing world and contribute to the society.

Career Prospects

ABCT programmes offer rigorous training to equip our graduates with the skills to capture a wide range of career options in the industry, business and public sectors. Based on their choices of study, our graduates enjoy promising employment prospects in diversified fields, including civil services, biotechnology industry, pharmaceutical industry, testing and certification, food and catering, environmental services, etc. Graduates may also choose to further their academic pathway and pursue postgraduate studies in local or overseas universities.

Where ABCT graduates build their career...

Graduates of BSc (Hons) in Applied Biology with Biotechnology

- BGI Health (HK)
- Hong Kong Science and Technology Park (HKSTP)
- Janssen
- · Prenetics Limited
- Sanofi

Graduates of BSc (Hons) in Chemical Technology

- GlaxoSmithKline (GSK)
- Merck & Co., Inc.
- Novartis
- Pfizer
- Sanofi
- Water Supplies Department (WSD)

Alumni Sharing

Ho-kit Mok

Graduate of BSc (Hons) in Applied Biology with Biotechnology;
Postdoctoral Research Fellow, The University of British Columbia (UBC)

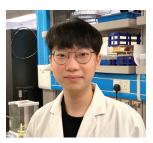
The Applied Biology with Biotechnology programme offers various learning opportunities to its students. During my time pursuing the BSc and PhD programmes in ABCT, I travelled to different countries and built connections with people around the world, initiated a meaningful social project and even completed a challenging research project. All these valuable experiences helped to prepare myself for my current position as a Postdoctoral Research Fellow at the UBC. Time is your only limit, sit tight and enjoy the rewarding journey of studying at PolyU before you realise it is over.



Ming-kit Lin, Ivan

Graduate of BSc (Hons) in Chemical Technology; Research Postgraduate Student, PolyU

The Chemical Technology programme equipped me with cutting-edge knowledge and the skills to become a versatile researcher to find solutions and create value. I am grateful for the support and guidance offered by the Department and it is the fantastic learning environment here that encourages me to continue my postgraduate study at PolyU.





Departmental Scheme-based Admission for Undergraduate Programmes

BSc (Hons) Scheme in Biotechnology and Chemical Technology (JS3011)

Common Year Study

General University Requirements (GUR):

- English LCR subject I
- English LCR subject II
- Introduction to Artificial Intelligence and Data Analytics
- Introduction to Innovation and Entrepreneurship
- Tomorrow's Leaders

Common Discipline-specific Requirements (DSR) subjects:

- Basic Statistics
- General Biology
- General Chemistry I
- General Laboratory Techniques and Safety
- Introduction to Calculus
- Physics for Chemical and Biological Sciences

Students indicate their preference of the Major during their 2nd semester. Those who study ABB have an option of taking a Secondary Major.

Major Study

Major and Secondary Major Study

Semesters

Semesters

BSc (Hons) in Applied Biology with Biotechnology (ABB) BSc (Hons) in Chemical Technology (CT) BSc (Hons) in
ABB with a Secondary Major in
Innovation and Entrepreneurship (IE)

Bachelor's Degree Programmes

BSc (Hons) Scheme in Biotechnology and Chemical Technology (JS3011)

The following two programmes are offered under the above scheme:

BSc (Hons) in Applied Biology with Biotechnology (ABB)

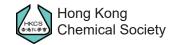
Launched in 1993, this programme was the first biotechnology-related programme in Hong Kong. It aims to groom competent professionals with a balance of generic skills and broad-based knowledge in applied biology and biotechnology. The programme is accredited by the Royal Society of Biology (RSB) and graduates are qualified for membership of RSB. Degree accreditation by the RSB acknowledges academic excellence in the biosciences, and highlights degrees that educate the research and development leaders and innovators of the future.



The option of Secondary Major in Innovation and Entrepreneurship (IE) is available. The BSc (Hons) in Applied Biology with Biotechnology with a Secondary Major in IE has been awarded interim accreditation by the RSB.

BSc (Hons) in Chemical Technology (CT)

Our programme emphasises the applied, technological and commercial aspects of chemistry. It offers a broad and rigorous education in contemporary chemistry, encompassing modern materials science, environmental concerns, and training in laboratory practices. The graduates of this programme are qualified for membership of the Hong Kong Chemical Society (HKCS) and the Royal Society of Chemistry (RSC).





BSc (Hons) in Analytical Sciences for Testing and Certification (12456)

(Articulation Programme for Local Senior Year Admissions)

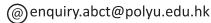
Designed for holders of Associate Degree/ Higher Diploma in science disciplines, this articulation programme aims to nurture competent professionals for chemical analysis as well as accreditation officers, which are currently in strong demand in the local testing and certification industry.



Programme Details







Taught Master's Degree Programme

After obtaining a Bachelor's Degree, graduates can continue to strive for further study in our Master's Degree Programme:

MSc in Sustainable Technology for Carbon Neutrality (12060), Mixed-mode

As the first master's level programme in Hong Kong specializing in the science and technology for carbon management and mitigation, this programme is a 1-year full-time or 2-year part-time taught postgraduate programme.

This programme aims to provide a systematic hands-on training to tackle challenging and dynamic global issues related to carbon auditing, green financing, carbon management and sustainable/ renewable energy. Such training will enable graduates to meet the increasing local and national demand for qualified professionals in the field of carbon neutrality.

Recognition

In this programme, the syllabi of subjects related to carbon auditing, the carbon footprint, greenhouse gas (GHG) inventory, GHG reporting, and other topics are based primarily on the latest and most widely accepted ISO standards. Graduates of this programme meet the academic, training, and examination requirements for registration as Registered GHG Carbon Auditors of the Hong Kong Institution of Certified Auditors (HKICA).



Our graduates will receive three professional certificates for GHG management:

- 1. SGS Certificate of ISO 14064 Quantitation and Reporting of Greenhouse Gas Emissions and Removals at Organization Level Implementation Training Course.
- 2. SGS Certificate of ISO 14057 Quantitation and Reporting of Carbon Footprint of Products (Goods & Services) Training Course.
- 3. SGS Certificate of Principles of and Methodologies for Carbon Neutrality.

Prospects

Graduates of the programme have excellent job prospects, with potential careers in the areas of corporate sustainability management, ESG consultancy and green finance in the finance sector. They may hold titles such as Compliance Officer, Sustainability Manager/ Executive, and Sustainability Consultant/ Analyst/ Specialist.



Programme Details

(https://polyu.hk/BnDjy

Enquiry

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