

Bachelor of Science in

# Biotechnology & Business

A joint school program offered by  
The School of Science and The School of Business and Management



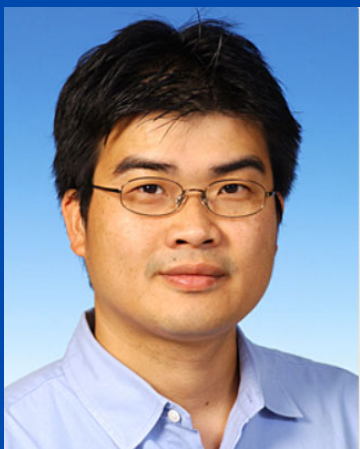
香港科技大學  
THE HONG KONG  
UNIVERSITY OF SCIENCE  
AND TECHNOLOGY





# Our Team

## Program Directorship



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## For program administration

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# BIOTECHNOLOGY

The application of techniques and processes that utilize **biological systems** to provide innovative solutions to complex issues in many aspects of our daily life.

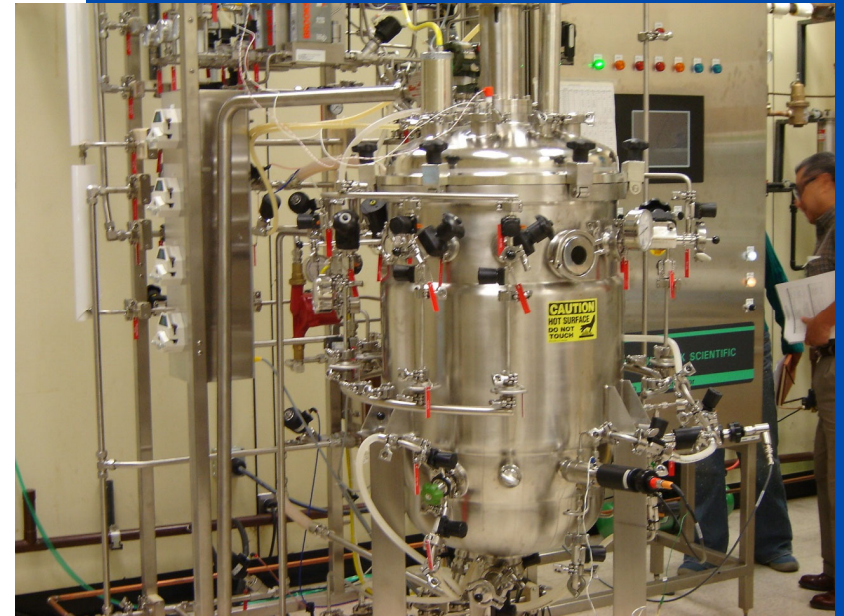




# Genetic Engineering

Often involves the isolation, manipulation and reintroduction of **DNA** into **model organisms**, usually to express a **protein**.

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# Examples of Biotechnology-related Industries



**Alcohol Industry - USD 1161 Billion**  
The production of fermented alcoholic drinks from starch containing raw materials has been practiced for centuries.



**OPEC Revenue – USD 1027 Billion**  
The petroleum industry's interest is now in biotechnology as an alternative technology to resolve the challenges and needs of this worldwide important sector.



**Pharmaceuticals – USD 1072 Billion**  
There will always be people who need medication of some sort and treatment for serious illnesses.



# Biotechnology in Hong Kong

- In HKSAR Government Budget, biotechnology is one of the focused areas for development under the Innovation and Technology sector; over **ten billion Hong Kong Dollars** will be allocated for the development of the industry
- HK has **~300** biotech-related companies
  - >70 are listed in HK Stock Exchange/GEM
  - ~45 biotech start-ups based in HK Science Park
  - Some companies have grown to establish manufacturing plants
- The world-renowned **Karolinska Institute of Sweden** has established its first overseas research facility at HKSTP





# BIBU Program Highlights

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- The **broad-based learning experience** helps equip students with a solid foundation of knowledge and skills to function effectively in the biotechnology industry
- **Internship opportunities and industrial visits** provide students with a global outlook on biotechnology development and applications in a business setting
- Enhance students' creativity and critical thinking skills
- The **holistic curriculum** nurtures students to become effective managers and leaders in the biotechnology industry



# BIBU Program Uniqueness

One of its kind in Hong Kong



Get essential knowledge of Biotechnology and Business in 4 years



Enjoy services / opportunities offered by **BOTH** School of Science and School of Business and Management



# BIBU Program Structure

A holistic 4-year curriculum covering domains in **Science** (Life Science and Biotechnology) and **Business** (Managerial Accounting, Micro/Macroeconomics, Operations Management) with a total of 118-122 credits:

## Exclusive for BIBU Students

- BIBU1010 – Biotechnology and Business Seminar
- BIBU4820 - Biotechnology Entrepreneurship and Business Operations
- BIBU4830 – Biotechnology Management
- BIBU4840/4850 – BIBU Capstone Project

Subject Area	Credits
Life Science	22-25
Science Core	12-17
Business Core	29
Interdisciplinary (BIBU)	10-13
Biotechnology/Business Electives	9
English for Science/Business	6
University Common Core	30



<b>Australia</b> Monash University	<b>France</b> Ecole Polytechnique	<b>Malaysia</b> Universiti Putra Malaysia	<b>Russia</b> National Research University Higher School of Economics	<b>Taiwan</b> National Taiwan University
<b>Austria</b> MCI Management Center Innsbruck	<b>Germany</b> University of Stuttgart	<b>Mexico</b> Tecnologico de Monterrey	<b>Singapore</b> National University of Singapore	<b>Netherlands</b> University of Groningen
<b>Canada</b> University of Toronto	<b>Ireland</b> Trinity College Dublin	<b>Norway</b> University of Bergen	<b>South Korea</b> Seoul National University	<b>Turkey</b> Koc University
<b>China</b> Peking University	<b>Japan</b> Kyoto University	<b>Philippines</b> Ateneo de Manila University	<b>Sweden</b> Lund University	<b>United Kingdom</b> University College London
<b>Denmark</b> University of Copenhagen	<b>Luxembourg</b> University of Luxembourg	<b>Poland</b> Jagiellonian University	<b>Switzerland</b> ETH Zurich	<b>United States</b> Cornell University

(Popular Destinations)

# Exchange Program

HKUST has approximately 230 exchange partners across 36 countries around the world. BIBU Students can join exchange programs offered by both School of Science & School of Business and Management.



# Enrichment Activities

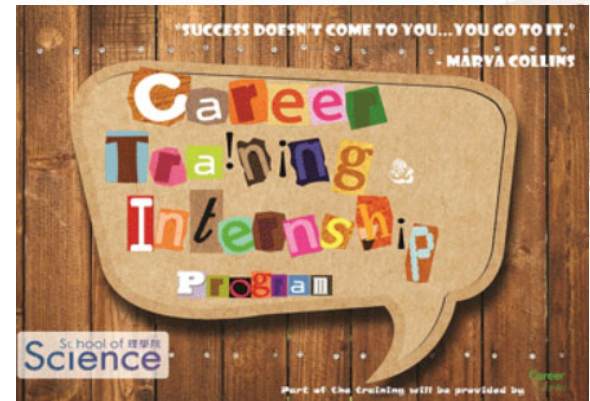
To help students develop a global perspective as well as sharpen their interpersonal skills, the School of Science (SSCI) and the School of Business and Management (SBM) of HKUST run a wide variety of enrichment activities such as international exchange, career training and internship program, and social service projects.

## BIBU students are eligible to:

- sign up for professional **seminars** and **co-curricular programs** organized by both Schools;
- join either School's international **exchange** program; and
- access the job banks and **career services** provided by both Schools.

**SSCI:** <http://advise.science.ust.hk/sfs>

**SBM:** <http://undergrad.bm.ust.hk/student-life/student-life-landing>





# Career Prospects

A Comprehensive experience prepares BIBU students to excel in any career path they aspire to

## Potential Employers

- Multinational pharmaceutical
- Bioproduct vendors
- Biotech service providers
- Medical device manufacturers
- Consulting firms focusing on the biotech/pharma industries

## Postgraduate Studies

### Canada

University of British Columbia

*M. Sc. in Experimental Medicine*

### United Kingdom

London School of Economics and Political Science

*M. Sc. International Health Policy*

### Hong Kong

The University of Hong Kong

*Master of Public Health*



# Admissions



## JUPAS Direct Entry (JS5811)

HKDSE applicants with either **Biology** or **Chemistry**

01



## International Qualifications

Applicants with Int'l Qualifications (IBDP, GCEAL, SAT, etc.) with at least one senior level subject from: **Biology / Chemistry / Mathematics**

02



## Transfer from HKUST Science (Group B – JS5103) or any Business Programs

- SSCI-B/SBM students may choose to major in BIBU via **major selection exercise** after completing the 1<sup>st</sup> year of study
- An option for students **without** HKDSE **Biology or Chemistry**

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# Admission Requirements – JUPAS (JS5811)

## Minimum Requirements

Subject	Minimum Level Requirement
English Language	4
Chinese Language	3
Mathematics (Compulsory Module)	3
Liberal Studies	2
Elective 1 Must be <b>Biology</b> or <b>Chemistry</b>	3
Elective 2 Any Category A subjects or M1/M2	3

## JUPAS score calculation

**Best 6 subjects  
with weighting**

English & Math (Comp) x 2

Best Elective:  
Biology / Chemistry x 1.5

Subject 1	<b>Weighted</b> English Language
Subject 2	<b>Weighted</b> Mathematics (Compulsory Module)
Subject 3	<b>Weighted Best Elective:</b> Biology <b>OR</b> Chemistry
Subject 4, 5 & 6	<b>Next best 3 subjects</b> Can be Core <b>OR</b> any Category A subjects



# Further Information

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