



香港浸會大學  
HONG KONG BAPTIST UNIVERSITY



香港浸會大學理學院  
HKBU Faculty of Science

Department of  
**Biology 生物系**



**RANKS NO. 1**

in World Leading (4\*) Research Impact  
in Biological Sciences in RAE 2020



**TOP 3**

in Overall 4\* Research in  
Biological Sciences in RAE 2020



*Environmental  
Sciences*



BSc (Hons) in

# APPLIED BIOLOGY

**Opportunities to  
build a better world**

Research with Professors  
Scholarships  
Exchange Programmes  
Internship Programmes  
Study Abroad



*Biotechnology*



*HKIQEP  
Accredited  
Programme*



UNIVERSITY OF  
LINCOLN

*HKBU-University  
of Lincoln Double  
Degree Programme*



JS2510  
BACHELOR OF SCIENCE

[biol.hkbu.edu.hk](http://biol.hkbu.edu.hk)



BSc (Hons) in

# APPLIED BIOLOGY

## Background

The Department of Biology at HKBU offers a four-year undergraduate degree programme for BSc (Hons) in Applied Biology. The programme provides students with comprehensive training in biological sciences with specialties in biotechnology and environmental sciences. The courses are designed to assist students in understanding the theories of biology and to provide training in technical skills for research and applications.

## Undergraduate Degree Programme

The Applied Biology programme provides professional training in two concentrations of biology:

### (i) Biotechnology Concentration

Students in this concentration will develop an understanding of the theories of biology as well as biotechnology applications by taking courses in the fields of cellular/ molecular/ developmental biology, genetics, molecular biotechnology, and other biological fields. In addition, a wide spectrum of laboratory courses designed for training students in technical skills for biological and biomedical research and biotechnology industry are provided.



### (ii) Environmental Science Concentration

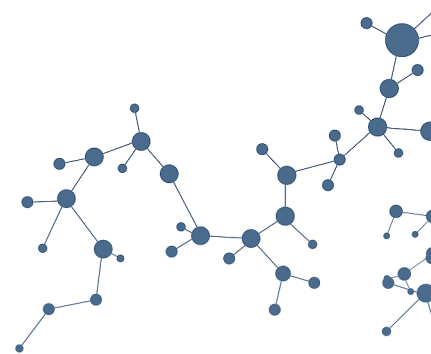
Students in this concentration will develop understanding of the theories of biology as well as environmental science by taking courses focusing in the fields of biodiversity, ecology, environmental impact assessment and waste management, biological resources management and other environmental management skills. Practical training will provide our students with the ability for addressing current and topical environmental and human health-related issues and challenges.





# Courses

## of Four-Year Undergraduate Degree Programme



### Major Courses



#### Biotechnology Concentration

- ✦ Biological Chemistry
- ✦ Cell Biology
- ✦ Genetics
- ✦ Microbiology
- ✦ Animal Physiology
- ✦ Immunology
- ✦ Molecular Biology
- ✦ Plant Physiology
- ✦ Animal and Plant Biotechnology
- ✦ Applied Biology Project I
- ✦ Biotechnology Studies Lab I & II
- ✦ Developmental Biology
- ✦ Fermentation and Enzyme Technology



#### Environmental Science Concentration

- ✦ Biodiversity
- ✦ Biological Chemistry
- ✦ Cell Biology
- ✦ Introduction to Environmental Sciences
- ✦ Microbiology
- ✦ Biological Resources and Management
- ✦ Ecology
- ✦ Environmental Health and Toxicology
- ✦ Waste Treatment and Recycling
- ✦ Applied Biology Project I
- ✦ Environmental Biotechnology
- ✦ Environmental Science Lab I & II
- ✦ Principles of Environmental Management

### Major Electives Courses

Introduction to Genome Biology, Environmental Biotechnology, Advanced Immunology, Neurobiology, Marine Biology, Chemical Analysis, Chemical Analysis Laboratory, Soil Science and Fertility, Introduction to Agricultural Science and Food Systems, Applied Biology Project II, Environmental Analysis

### Admission Requirement

Candidates will be admitted on a Faculty basis with broad-based education from all scientific fields in Year 1. Candidates must fulfil the following HKDSE requirements for admission to the Faculty of Science.

Level 3 in:

- Chinese Language
- English Language
- Any two Elective Subjects  
(preferably good results in science-related subjects)

Level 2 in:

- Mathematics
- Liberal Studies

#### **Criteria for Applied Biology as Major Programme Assignment**

Candidates who have attained a 5\* or above in relevant science subjects will be guaranteed for admission; or

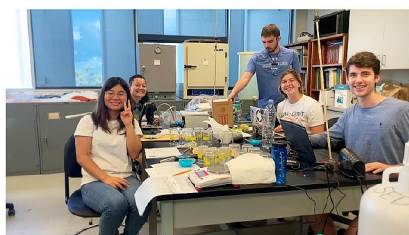
- I. A minimum cGPA of 2.4 attained by the end of Year 1; and
- II. A grade of C or above in BIOL1005 Introduction to Biology

### Career Prospects

Many of our graduates gain employment after graduation in a variety of careers that require a solid background in applied biology such as biotechnology marketing, management and testing lab, biological science education, nature conservation, environmental monitoring, pollution control, public health and sanitation, food and environmental hygiene, non-government organisations and green groups.



## Exchange Programmes, Internship Programmes, Summer Research Programme, Study Tours and Scholarships



Eckerd College Summer Research Exchange Programme, Florida, USA 2019



Taipei Waste Management Facilities Study Tour 2019



Okinawa, Japan Excursion 2017



Internship in Agriculture, Fisheries and Conservation Department, Government of HKSAR 2021



Undergraduate Summer Research Programme 2019



Scholarship for Excellence 2019

### HKIQEP Accredited Programme

The BSc (Hons) in Applied Biology (Environmental Science Concentration) has been accredited by the Hong Kong Institute of Qualified Environmental Professionals Limited (HKIQEP) under the HKIQEP Accreditation Scheme for Environmental Degree Programmes – Undergraduate Level, in FIVE areas which include two Fundamental Areas (Environmental Science and Environmental Management) and three Specific Areas (Water, Waste, and Environment Impact Assessment and Health Impact Assessment) of the HKIQEP Syllabus.

Graduates from our Environmental Science Concentration are provided with a shorter route to becoming a professional member of HKIQEP, a pathway for Qualified Environmental Professionals. This qualification is recognized by the Environment Bureau and Development Bureau, and 45 reputed companies in Hong Kong.

### HKBU-University of Lincoln (UoL)

#### Double Degree Programme in Bachelor of Science (Hons) in Applied Biology (HKBU) and Bachelor of Science (Hons) in Ecology and Conservation (UoL)

Earn 2 degrees in 4 years with the same tuition fee.

This programme is jointly offered by HKBU (Department of Biology) and the University of Lincoln (School of Life Sciences), UK. In this "3+1" curriculum, students will study the first three years at HKBU to gain fundamental and advanced knowledge and skills in environmental science and management to address current and topical environmental and human health-related issues and problems, and study Year 4 at UoL in its Ecology and Conservation programme. This will provide students with a firm grounding in the principles of ecology and conservation to address challenges pertaining to the conservation of biodiversity.

### Programme Enquiries

General Office  
Department of Biology  
RRS815, 8/F, Sir Run Run Shaw Building  
Ho Sin Hang Campus,  
Hong Kong Baptist University, Kowloon Tong  
Tel : (+852) 3411 7050  
Fax : (+852) 3411 5995  
E-mail : [biol@hkbu.edu.hk](mailto:biol@hkbu.edu.hk)

### Admissions Enquiries

Admissions Section  
Academic Registry  
AAB701, 7/F, Academic and Administration Building  
Baptist University Road Campus  
Hong Kong Baptist University, Kowloon Tong  
Tel : (+852) 3411 2200  
Fax : (+852) 3411 7373  
E-mail : [334jupas@hkbu.edu.hk](mailto:334jupas@hkbu.edu.hk)

The Department also offers opportunities for postgraduate study at MSc, MPhil and PhD level for graduates interested in further study. For more details, please refer to our website: [biol.hkbu.edu.hk](http://biol.hkbu.edu.hk)