6901 Bachelor of Science & Young Scientist Scheme (YSS) 2018 - 19
The talk will introduce:

- HKU Faculty of Science
- 6901 BSc programme
- Diverse learning experiences
- Young Scientist Scheme (YSS) for Outstanding Science Students
- Career prospects
- Admission requirements
HKU Faculty of Science
Rankings of HKU

#1 among the universities in Hong Kong
#26 in the world
#4 among the universities in Asia
#40 in the world
#1 among the universities in Asia
Top Notch Scientists

World University Rankings by Faculty – Natural Science

QS University Rankings 2018

#26

14% of our professoriate staff are the world’s top 1% scholars

according to Clarivate Analytics’ Essential Science Indicators 2017
Total no. of academic staff: **152**

- **2.5%** Mainland China
- **12.5%** European Countries
- **15.7%** North American Countries
- **37.5%** Hong Kong
- **4%** Australia & New Zealand
- **4.6%** Other Asian Countries
- **0.1%** African Countries

~**60%** academic staff are from outside Hong Kong

Diverse origins and cultures of students

HKU hosts students from over **100** countries/regions

International collaborations
Targeting at 100% overseas experience by 2022

Examples of overseas experiences:
- Field trips
- International scientific conferences
- Internships
- Overseas Research Fellowships
- Summer courses
- Worldwide exchange studies

Essentially 100% employment rate (inclusive of further studies) in the past decade
Science Undergraduate Programmes

6901 BSc
Bachelor of Science
4-year Programme

6729 BSc(AC)
BSc in Actuarial Science
4-year Programme

6119 BEd & BSc
Bachelor of Education & Bachelor of Science
5-year Double Degree Programme
# 6901 Bachelor of Science Programme

## Comprehensive training in science

### Develop capabilities in quantitative and logical reasoning

### Cultivate ability to tackle novel situations and solve intricate problems

## A choice of 14 Science Majors

<table>
<thead>
<tr>
<th>Biochemistry</th>
<th>Food &amp; Nutritional Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences</td>
<td>Geology *</td>
</tr>
<tr>
<td>Chemistry #</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Decision Analytics</td>
<td>Molecular Biology &amp; Biotechnology ^</td>
</tr>
<tr>
<td>Earth System Science</td>
<td>Physics</td>
</tr>
<tr>
<td>Ecology &amp; Biodiversity ^</td>
<td>Risk Management</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>Statistics</td>
</tr>
</tbody>
</table>

# Includes an option to follow the accredited Royal Society of Chemistry programme

* Includes an option to follow the accredited Geology programme

^ Includes an option to follow the accredited Royal Society of Biology programme
Key Features of 6901 BSc curriculum

- One entry in application for a choice of **14 Majors**
- Up to 2 years time to choose a Major
- Flexibility in changing Majors

Students may take a **2nd Major** or a **Minor** or **2 Minors** in Science or non-Science disciplines

One-on-one academic advice
Diverse Learning Experiences
International Exchange Studies

Around 300 partner universities in more than 40 countries, including:

North America
- University of California
- University of Chicago
- Columbia University
- Johns Hopkins University
- Stanford University

Europe
- University of Cambridge
- Imperial College London
- University of Oxford

151 BSc students travelled abroad for international exchange in 2016-17

Summer Exchange Opportunities

- Yale University
- Johns Hopkins University
- University of California at Berkeley
- University of California at Irvine
- University of Cambridge
Undergraduate Research Experiences

- **Overseas Research Fellowship (ORF)**
  - **Examples of institutes for ORF:**
    - North America
      - California Institute of Technology
      - Columbia University
      - Cornell University
      - MIT
      - Stanford University
      - University of California at Berkeley
      - University of California at Los Angeles
    - Europe
      - CERN
      - University of Cambridge
      - University College London

- **Summer Research Fellowship (SRF)**

- **Undergraduate Research Colloquium**

- **Final-year projects**

- **Directed studies**
Field Trips

Provide students with hands-on learning experience outside classroom

Examples of field trip destinations:

- Australia
- Canada
- Kenya
- Taiwan
- Thailand
- USA
Examples of internship opportunities:

- Government bodies
- Scientific laboratories
- Non-government agencies/NGOs
- Commercial companies

Internships

More than 200 internship opportunities were offered in 2016-17

- Enable students to apply knowledge in the workplace
- Prepare students for their careers
Provides ample early research experiences for outstanding undergraduate students
YSS — Early Research Experiences for Outstanding Students

Students in YSS are guaranteed with:

1. Summer Research Fellowship (SRF)
2. A further SRF or an Overseas Research Fellowship (ORF)
3. International exchange, visiting or summer study
4. Attendance to an international scientific conference
5. A research mentor
6. Enrollment in the Frontiers of Science Honours Seminar
7. Stipends for research activities
8. Entrance scholarship
Pathway of YSS

YEAR 1
- Summer Research Fellowship
  - Guidance from Research Mentor
  - Summer Research Fellowship

YEAR 2
- 2nd Summer Research Fellowship or Overseas Research Fellowship

YEAR 3
- International Exchange Study, Visiting or Summer Study

YEAR 4
- Final Year Project
- International Conference
- Frontiers of Science Honours Seminar

International Conference
Frontiers of Science Honours Seminar
YSS participants are guaranteed to go on exchange, visiting or summer study in a top university

Partner Universities for YSS

North America

Europe

UNIVERSITY OF CALIFORNIA
COLUMBIA UNIVERSITY
UNIVERSITY OF CAMBRIDGE
Yale University
Johns Hopkins University
Imperial College London
The University of Chicago
King's College London
Who are eligible to join YSS?

In 2017, **22 students** were admitted to YSS.

* Including Category A subjects and M1/M2

**JUPAS**

- **Best 5 HKDSE Category A subjects**
  - ≥ 31 scores
    - automatically accepted to YSS
    - no interview is necessary

1. 6901 BSc students not admitted to YSS on entry but show excellent talent afterwards would still have a second chance to enroll in YSS.
2. Students who are not admitted to YSS can still compete for SRF, ORF and/or international exchange during their study.
Career Prospects
Broad Further Study Options

23% of Science graduates pursued further studies

On top of pursuing further study in science disciplines, our graduates also pursue further studies in other disciplines.

- business
- computing
- economics
- engineering
- materials sciences
- medical sciences
- pharmacology

Some of the institutions our students went for further studies

- Cambridge
- McGill
- SLAC
- Caltech
- Michigan
- Stanford
- Chicago
- MIT
- Texas
- Columbia
- Oxford
- UCLA
- Harvard
- Princeton
- UC San Diego
- Illinois
- SBU
- UC San Diego
HKU BSc + UoM DVM
(articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne)

Doctor of Veterinary Medicine (DVM) at the University of Melbourne (UoM)

HKU 6901 BSc

BSc I → BSc II → BSc III → BSc IV (Optional) → DVM1

DVM2 → DVM3 → DVM4

HKU 6901 BSc degree

Bachelor of Science at HKU

DVM degree at the University of Melbourne (UoM)

total: 7.5 years*
HKU BSc + UoM DVM
(articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne)

**Eligible majors**
- Biological Sciences
- Molecular Biology & Biotechnology
- Ecology & Biodiversity
- Food & Nutritional Science
- Biochemistry

**Prerequisite for application**

<table>
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<tr>
<th>CGPA Requirement</th>
<th>≥ 3.5</th>
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<tr>
<td>One semester of biology courses (cellular/ general)</td>
<td>Pass</td>
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<tr>
<td>1 chemistry course</td>
<td>+</td>
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<tr>
<td>1 advanced level biochemistry course</td>
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**Complete 186 credits**
by the 6th/ 7th semester of study

**Selection period**
Year 3 of the study

**Quota**
up to 5 students every year

**Scholarship**
to cover partial tuition fees of 1st year of study at UoM

Eligible majors include:
- Biological Sciences
- Molecular Biology & Biotechnology
- Ecology & Biodiversity
- Food & Nutritional Science
- Biochemistry

CGPA Requirement: ≥ 3.5

Prerequisite:
- One semester of biology courses (cellular/ general)
- 1 chemistry course
- 1 advanced level biochemistry course

Complete 186 credits by the 6th/ 7th semester of study

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Quota: up to 5 students every year

Scholarship: to cover partial tuition fees of 1st year of study at UoM
HKU BSc + UoM DVM
(articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne)

After completion
Students will obtain international accreditation AVBC (Australia), AVMA (USA) and RCVS (UK)

6901 BSc
the only Doctor of Veterinary Medicine articulation programme in HK

UoM
#32 Times Higher Education World University Rankings 2018
#41 QS World University Rankings 2018
#15 QS World University Rankings 2017 by Subject – Veterinary Science

Graduates are also qualified to register as veterinary surgeons in Hong Kong
4 + 1 (BSc/ BSc (ActuarSc) + MSc/ MStat)

(articulation pathway to MSc/ MStat Programmes at HKU; 4 years in 6901 BSc/ 6729 BSc (Act Sci) plus 1 year in MSc/ MStat)

Guaranteed admission to the taught postgraduate programmes offered by the Faculty to selected outstanding BSc students

TPg Programmes include:
- MSc in the field of Food Safety and Toxicology
- MSc in the field of Applied Geosciences
- MSc in Environmental Management
- Master of Statistics
- MSc in the field of Food Industry: Management and Marketing
- MSc in Data Science

Provide a convenient channel of specialized training for deepening knowledge in specific fields of science

CGPA requirement (at graduation) \( \geq 3.5 \)

Quota
- MSc in Data Science: 2
- No quota for other TPG programmes

Accepts applications from Year4 students

Scholarship for the TPg study
- Students who are awarded the highest amount of scholarship will only need to pay 50% of tuition fee
Wide Career Prospects

- Finance
- Labs
- Engineering
- Computer Industries
- Management
- Geotechnical Industries
- Biotech & Pharmaceutical Industries
- Green and Environmental Industries
- Food Industries
- R&D Scientist; Education; Technical Marketing; etc.

Essentially 100% employment rate
Admission Requirements
HKU General Admission Requirements

Elective subjects can be any Category A subject, one of them must be a Science subject.
6901 BSc Programme

Admission Principle – Best 5

- English
- Mathematics
- Best Science Elective
- The BEST 2 of other subjects / M1 / M2

Heavier weight for Science Electives, Math and M1/M2

Aptitude test to differentiate borderline students
2017 JUPAS Admission Scores

Total score of best 5 HKDSE subjects among the 6901 intakes

6901 BSc

22 ~ 32

The HKDSE 'level to score' scale

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2017 Admission Figures

Total no. of students admitted: 476

- 74 (15.5%) JUPAS
- 47 (9.9%) Non-JUPAS (Local students)
- 56 (11.8%) Non-JUPAS (Mainland)
- 299 (62.8%) Non-JUPAS (International students from 17 countries)

2018 Admission Quota for 6901 BSc programme

361 (JUPAS + Local Non-JUPAS)
(Separate quota for mainland and international students)
Science Entrance Scholarships

HKDSE Results
Total score in the best 5 subjects
(including M1 or M2)

Score of 35 $70,000
Score of 34 $60,000
Score of 33 $50,000
Score of 32 $40,000
Score of 31 $30,000

Note:
1. The results are based on one sitting only. Students must NOT BE HKDSE REPEATERS and must fulfill the minimum University entrance requirements.

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THANK YOU