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

<table>
<thead>
<tr>
<th>HKU Faculty of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6901 BSc programme</strong></td>
</tr>
<tr>
<td>▪ Key features</td>
</tr>
<tr>
<td>▪ Curriculum structure</td>
</tr>
<tr>
<td><strong>Diverse learning experiences</strong></td>
</tr>
<tr>
<td><strong>Young Scientist Scheme (YSS) for Outstanding Science Students</strong></td>
</tr>
<tr>
<td><strong>Career prospects</strong></td>
</tr>
<tr>
<td><strong>Admission requirements</strong></td>
</tr>
</tbody>
</table>
HKU Science Family

- Biological Sciences
- Chemistry
- Earth Sciences
- Mathematics
- Physics
- Statistics & Actuarial Science
High University Rankings

Rankings of HKU

QS World University Rankings 2018

#26 in the world

#4 among the universities in Asia

#1 among the universities in Hong Kong
High University Rankings

Rankings of HKU

Times Higher Education
World University Rankings 2018

#40 in the world

#4 among the universities in Asia

#1 among the universities in Hong Kong
Top Notch Scientists

World University Rankings by Faculty – Natural Science

#21

QS University Rankings 2017

14% of our professoriate staff are the world’s top 1% scholars according to Clarivate Analytics’ Essential Science Indicators 2016
Total no. of academic staff: 152

~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

- Key features
- Curriculum structure
6901 Bachelor of Science Programme

Comprehensive training in science

A choice of 14 Science Majors to suit your interests and career aspirations

- Biochemistry
- Biological Sciences
- Chemistry #
- Decision Analytics
- Earth System Science
- Ecology & Biodiversity
- Environmental Science

- Food & Nutritional Science
- Geology *
- Mathematics
- Molecular Biology & Biotechnology
- Physics
- Risk Management
- Statistics

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

* Includes an option to follow the accredited Geology programme

Developing students’ capabilities in quantitative and logical reasoning

Cultivating students’ ability to tackle novel situations and solve intricate problems
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

**Simple and Flexible**

**1 Major / 2 Majors / Major-Minor / Major-2 Minors**

**No Quota for any Science Major**

**Academic Advising System**

One-on-one academic advice
BSc Curriculum Structure (240 Credits)

Forty 6-credit courses spanning over 4 years of study

- Free to choose any of the 14 Science Majors
- May choose a Minor or a second Major

UNIVERSITY EDUCATION
Language Courses
Common Core Courses (54 credits)

SCIENCE FOUNDATION COURSES
(12 credits)

Major(s), Minor(s), Electives
(168 credits)

CAPSTONE LEARNING
Focus on integration and application of knowledge and skills gained in the early years of study

- Give students a holistic view of science
- Help to develop students’ competence in the core science and the ability to reason in logical and quantitative manners

Broaden students’ horizons beyond chosen disciplinary fields of study
Diverse Learning Experiences
Diverse Learning Experiences

Ample Learning Opportunities

- Enhance understanding of and sensitivity to different cultures
- Nurture broader perspectives
- Stimulate novel ideas

International Exchange Studies

Undergraduate Research Experiences

Field Trips

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

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
Summer Exchange Opportunities

Yale University Summer Session

University of California-Berkeley

University of California-Irvine

Summer Programme at University of Cambridge

Summer Programme at Johns Hopkins
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
Internships

More than 200 internship opportunities were offered in 2016-17

Examples of internship opportunities:
- Government bodies
- Scientific laboratories
- Non-government agencies/NGOs
- Commercial companies

• 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
YSS — Pathway to Pursue Research

Engaging in research early

YEAR 1
Guidance from Research Mentor
Summer Research Fellowship

YEAR 2
HASSAN Ayon Ahmed
SRI participant at School of Biomedical Sciences
SRI is now pursuing his PhD studies in Molecular Biology at HKU

"SRI made me realise how different research work is compared to studying science in textbooks. It also helped me appreciate and understand the subtle but profound differences between research and carry out experiments for laboratory courses. Now I have a better understanding of what research is like."

YEAR 3
2nd Summer Research Fellowship or Overseas Research Fellowship

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

CHAN Hau Sun Sam
BSc graduate (major in Chemistry)
IARU Global Summer Programme, Australia
MRC Oxford Medical Sciences—exchange study at University of Oxford, UK
SRI participant at Department of Chemistry
Sam is currently pursuing his PhD studies in Chemistry at University of Oxford, UK

"The IARU Summer Programme has enlightened me with a very important concept — interdisciplinary research. The programme was designed to be very interactive in nature, drawing brilliant minds from all over the world to give me hands-on experience to solve global problems in an interdisciplinary and international fashion."

Li Xinyu
BSc graduate (major in Mathematics/Physics)
IARU participant at Harvard Space Science Laboratory, University College London, UK
Xinyu is now pursuing his PhD studies in Physics at Columbia University, USA

"I was actively involved in many research projects while taking regular courses. During my first summer in HKU, I was funded by the Faculty to do a research project in UK. These experiences played an important role in my determination to pursue an academic career."

Additional text not visible in the image...
YSS participants are guaranteed to go on exchange, visiting or summer study in a top university

Partner Universities for YSS

North America
- UNIVERSITY OF CALIFORNIA
- COLUMBIA UNIVERSITY
- Yale UNIVERSITY
- JOHNS HOPKINS UNIVERSITY
- THE UNIVERSITY OF CHICAGO

Europe
- UNIVERSITY OF CAMBRIDGE
- Imperial College London
- King's College London
Examples of institutions in which Overseas Research Fellowship (ORF) has been held in the past years:

**North America**
- California Institute of Technology
- Columbia University
- Cornell University
- MIT
- Stanford University
- University of California (Berkeley & Los Angeles)

**Europe**
- CERN
- University of Cambridge
- University College London

Gabriel Gallardo, majoring in Physics, spent his summer working in CERN through ORF in 2015
Who are eligible to join YSS?

In 2017, 22 students were admitted to YSS.

JUPAS

Best 5 HKDSE Category A subjects

≥ 31 scores

- automatically accepted to YSS
- no interview is necessary

Non-JUPAS

Selected Non-JUPAS applicants will be invited to enroll in YSS

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. Details to be announced later.
2. Students who are not admitted to YSS can still compete for SRF, ORF and/or international exchange during their study.
Career Prospects
18% of Science graduates in 2016 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 degree

Bachelor of Science at HKU

DVM degree at the University of Melbourne (UoM)

total: 6.5 years*

Remarks: students can also choose to study in HKU for 3.5 years, and obtain both degrees in 7.5 years
HKU BSc + UoM DVM
(articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne)

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

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

Complete 180 credits by the 5th semester of study

CGPA Requirement
≥ 3.5

Selection period
Year 2 of the study

Quota
up to 5 students every year

Scholarship
to top students every year

Biochemistry Scholarship to top students every year
HKU BSc + UoM DVM
(articulation pathway to the Doctor of Veterinary Medicine at the University of Melbourne)

UoM DVM

Semester 1
Pass FOUR specialized subjects
- Animal Health
- Cells to Systems
- Digestive System
- Metabolism & Excretion

Semester 2

Upon completion
HKU BSc & UoM DVM Degrees

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

After completion
Students will obtain international accreditation AVBC (Australia), AVMA (USA) and RCVS (UK)
4 + 1 (BSc + MSc) (articulation pathway to MSc Programmes at HKU; 4 year 6901 BSc plus 1 year 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 Applied Geosciences
- MSc in the field of Food Safety and Toxicology
- Master of Statistics
- MSc in Environmental Management
- MSc in the field of Food Industry: Management and Marketing

**CGPA requirement** (at graduation) ≥ 3.5

**Quota**
Top 5% provisionally accepted

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

Accepts applications from Year 2 students or above
Career Preparation

Essentially 100% employment rate (71% of graduates were employed & 18% of them pursued further study)

Career Essentials
- Practising key job hunting skills
- Enhancing fundamental work skills
- Coaching by experienced and professional trainers

Career Enrichment
- MBTI personality test for enhancing self-awareness
- Providing most updated market trend
- Networking with insiders

Making intelligent career choice

Enhancing employability
Wide Career Prospects

Computer Industries

Finance

Management

Civil Services

Geotechnical Industries

Labs

Biotech & Pharmaceutical Industries

Green and Environmental Industries

Food Industries

R&D Scientist; Education; Technical Marketing; etc.

and more
Admission Requirements
HKU General Admission Requirements

- Elective subjects can be any Category A subject, one of them must be a Science subject

Minimum Programme Entrance Requirements:
- English Language Level 3
- Mathematics Level 2
- Chinese Language Level 3
- Liberal Studies Level 2
- Elective subject * Level 3
- Elective subject * Level 3

* 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

<table>
<thead>
<tr>
<th>Level</th>
<th>5**</th>
<th>5*</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
2017 JUPAS Admission Scores averages of Science Programmes in HK

Average score of best 5 HKDSE subjects

The HKDSE ‘level to score’ scale

<table>
<thead>
<tr>
<th>Level</th>
<th>5**</th>
<th>5*</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

- HKU 6901 BSc Programme: 4.82
- BSc Programme in University B: 4.65
- BSc Programme in University A: 4.30
2017 Non-JUPAS Admission Scores

6901 BSc

**GCEAL**
- Lowest admission score: 1A*, 2A
- Average admission score: 2A*, 1A

**IB**
- Lowest admission score: 34
- Average admission score: 38

We accept students with other qualifications such as AD, HD, SAT.

We also accept applications from students who have completed 1st year of AD/HD programme or degree programme from other universities.
2017 Admission Figures

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

Total no. of students admitted: **476**

**6901 BSc**
2018-19
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.

The HKDSE 'level to score' scale

<table>
<thead>
<tr>
<th>Level</th>
<th>5**</th>
<th>5*</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

*The amounts are subject to approval
Contacts for Further Information

3917-2683

www.scifac.hku.hk

science@hku.hk
THANK YOU