An Introduction to BSCHEM: Chemistry and Daily Life
Worldwide Recognition

Recent achievements in global rankings highlight the strength of the research, faculty, students and programmes at CityU Chemistry.

- 28th in Asia Pacific
- 101-150th globally
  - QS World University Rankings by Subject 2019 Chemistry

- 2nd in Hong Kong
  - ARWU Global Ranking of Academic Subjects 2019 Chemistry

- 15th in Asia Pacific
  - 98th globally
  - THE World University Rankings 2019 by subject
  - 2019 Physical Sciences
Faculty Members from Multiple Regions of the World

- France
- Hungary
- South Korea
- Japan
- Taiwan
- Vietnam
- China (20 members)
- Hong Kong (7 members)
Globally Recognized Top Scientists

Prof. Alex JEN
PhD (Pennsylvania)
- Foreign Fellow, European Academy of Sciences
- Thomson Reuter’s “The World’s Most Influential Scientific Minds” (Highly Cited Researchers) for 2 consecutive years

Prof. Jean-Marie LEHN
PhD (Strasbourg)
- Nobel Laureate in Chemistry (1987)
- Visiting Distinguished Professor of CityU CHEM

Prof. Hua ZHANG
PhD (Peking)
- Fellow, Royal Society of Chemistry
- Thomson Reuter’s “The World’s Most Influential Scientific Minds” (Highly Cited Researchers) for 5 consecutive years
- Filed 74 patents applications
- H-index = 123
- offers an undergraduate major programme:
  - BSc in Chemistry

- offers postgraduate programmes:
  - Master of Science in Chemistry
  - Master of Philosophy
  - Doctor of Philosophy
How to join BSc Chemistry?

**HKDSE**

**JUPAS**

**JS1202**

Target intake ~50

A minimum of 120 credits is needed for graduation.
JS 1202
Min. Entrance Requirement

<table>
<thead>
<tr>
<th>Subject</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>3</td>
</tr>
<tr>
<td>Chinese Language</td>
<td>3</td>
</tr>
<tr>
<td>Maths</td>
<td>2</td>
</tr>
<tr>
<td>Liberal Studies</td>
<td>2</td>
</tr>
<tr>
<td>Elective 1</td>
<td>3</td>
</tr>
<tr>
<td>Elective 2</td>
<td>3</td>
</tr>
</tbody>
</table>

Weighting:

Elective 1 subject:
- ★★★ - Chemistry
- ★★ - Combined Science (Chemistry and Physics/Biology)

Elective 2 subject:
- ★★ - Biology
- ★★★ - Chemistry
- ★ - Physics
- ★★ - Science (Combined or Integrated)
- ★ - Business, Accounting and Financial Studies (Accounting or Business Management)
- ★ - Design and Applied Technology
- ★ - Information and Communication Technology

*Elective 2 can be any elective subject but the minimum level in Mathematics needs to be at least 3.

1★ = Weight x 1 in calculation of admission score.
JS 1202
Min. Entrance Requirement

<table>
<thead>
<tr>
<th>Category A Core and Elective Subjects (including M1/M2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
</tr>
<tr>
<td>Score</td>
</tr>
</tbody>
</table>

**JS1202 Bachelor of Science in Chemistry**

Score formula: 4 core + 2 elective subjects (with weightings applied where appropriate)

<table>
<thead>
<tr>
<th>Weighted Admission Score</th>
<th>English Language</th>
<th>Chinese Language</th>
<th>Mathematics (Compulsory Part)</th>
<th>Liberal Studies</th>
<th>Elective 1</th>
<th>Elective 2</th>
<th>Elective 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting: 2</td>
<td>Weighting: 1</td>
<td>Weighting: 1.5</td>
<td>Weighting: 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Weighting 2:** Chemistry
- **Weighting 1.5:** Combined Science (Chemistry and Biology), Combined Science (Chemistry and Physics)
- **Weighting 1:** Other elective subjects

<table>
<thead>
<tr>
<th>Median</th>
<th>33</th>
<th>3 × 2</th>
<th>3 × 1</th>
<th>4 × 1.5</th>
<th>4 × 1</th>
<th>5 × 2</th>
<th>4 × 1</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Quartile</td>
<td>32</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>-</td>
</tr>
</tbody>
</table>

2019 admission score (4C+2X, median with weighting)~33
JS 1202
Q & A

Q: I've got a Level 5* in Chemistry in HKDSE. Will this grade be double-counted?
Yes!
We weigh double for Chemistry and English Language. We also weigh 1.5-fold for Mathematics and other Science electives like Physics or Biology.

Q: What's the Average HKDSE (4C+2X) score point of students admitted to BSc Chemistry programme in 2018/19?
23

Q: I took both M1 and M2 as my electives. How will these subjects be counted?
We count both M1 and M2 as one elective subject with standard weighting in calculation.

Q: Is it difficult to be admitted to BSc Chemistry programme?
Yes or No.
We admit 1 student out of 42.4 applicants in 2018/19.
How to join BSc Chemistry?

HKDSE
JUPAS

University Freshmen

2nd year

3rd year

Final year

Asso. Deg / HD
Non-JUPAS

JS1202
Target intake ~50

A minimum of 120 credits is needed for graduation.
Non-JUPAS admission

• Associate Degree

• Higher Diploma

• Mainland China (IB, GCE-AL)
• International Schools (IB, GCE-AL)
• Overseas (IB, GCE-AL)
Admission requirements (Non-JUPAS)

• Direct application is the non-JUPAS route for students who hold other qualifications such as GCE A-Levels, an IB Diploma, an associate degree or an overseas qualification.

• Applicants holding a 12-year school-leaving qualification or a partially completed sub-degree qualification may apply for admission to first-year studies in BSc Chemistry. CGPA≥3.0

• Applicants holding a 13-year school-leaving qualification, i.e, IB Diploma and GCEAL, may apply for admission to Year-2 study in BSc Chemistry (AS I).

• Applicants holding a sub-degree (Asso. Degree or HD) qualification may apply for admission to Year-3 study in BSc Chemistry (AS II).
Non-JUPAS admission

• Deadline for 2020 admission is Jan 31.
• Date of interview is Feb or Mar 2020.
• Format: group interview and conducted in English.
• Focus on applicants’ ability and character.
• Conditional offer will be issued to successful applicants.
• We do not accept credit transfer.
BSc Programme in Chemistry
BSc in Chemistry

• This major aims to provide students with a firm foundation in chemical sciences.
• It puts strong emphasis on discovery-enriched curriculum, out-of-classroom activities, and independent learning.

Describe the general chemical principles appropriate to the study of chemistry
Competently perform a wide range of laboratory and technical procedures in chemistry
Critically evaluate experiments in chemistry as reported in the literature and synthesize information in a constructive manner
Identify, analyze and reflect upon the responsibilities of chemists by applying chemical knowledge to society, commerce and the environment
Curriculum Journey to BSc in Chemistry

1. Year
   - University’s gateway education requirements
   - Foundation courses in general Chemistry and related laboratory skills training
   - Core/elective courses in Analytical, Inorganic, Organic and Physical Chemistry
   - Directed research project during summer

2. Year
   - Advanced elective courses in Physical, Organic, Inorganic and Analytical Chemistry
   - Local or overseas internships
   - Exchange programmes

3. Year
   - Advanced elective courses
   - Final-year research project to learn and practice on your own-choice topic

4. Year

CityU
Curriculum Journey to BSc in Chemistry

**Newly Developed Electives**

- Forensic Chemistry
- Computational chemistry
- Supramolecular Chemistry
- Green Chemistry
- Industrial Chemistry
- Environmental chemistry
- Medicinal Chemistry

- Cosmetic Chemistry
- Graphene: Fundamentals and Emergent Applications
- Chemical Biology of DNA and RNA
- Crystallography/Solid-state Inorganic Chemistry
BSc in Chemistry
Global Internationalization

Exchange Programmes

- **200+** Partner Institutions across 40+ countries and regions worldwide
- **60% students** will gain global experience before graduation
- **40+ CHEM students** joined exchange programmes at all level in the academic year 2018/19.
BSc in Chemistry
Research Experience

Summer Research Scholarship Scheme

• 10 scholarships every year
• For Year 2 and Year 3 students
• Conduct individual research under supervision by faculty members in summer for 6-8 weeks
Mentoring Scheme

- Matched with faculty members and senior year students to meet regularly
- Solicit proper guidance and insights to prepare them for the challenges ahead in their study and future career
- Some undertook group projects based on their interested topics
BSc in Chemistry
Out-of-classroom Activities

Internship Opportunities
• OIS/IAS:
  Offers students with local and overseas internship opportunities for a summer to apply classroom learning to real life

Career and Industry Seminars
• Student-alumni meet-up activities
• Regular networking/reunion events
Career Prospects

Civil Service
- Assistant Environmental Protection Officers
- Chemists
- Agricultural/ Fisheries/ Forestry Officers
- Executive Officers

Business
- Sales and Marketing Executives
- Managers
- Specialists for scientific instruments, medical & pharmaceutical products

Environmental Consultancy
- Consultants
- Environmental Auditors
- NGOs/ Advocates

Government Departments
- Agriculture Fisheries and Conservation Department
- Environmental Protection Department
- Department of Health
- Environmental Hygiene Department
- Education Bureau

Non-Governmental Organization
- Ocean Park
- WWF Hong Kong
- Noah's Ark
- Kadoorie Farm
Career Prospects

Industry and Laboratories
- Research and Development
- Analytical Chemists
- Quality Assurance/Management Chemists
- Environmental Scientists
- Technical Officers

Education
- Secondary School Teachers
- Technical Staff of Tertiary Institutions
- Teaching Assistants
- Research Assistants

Further Study
- Postgraduate students in local and overseas universities

Testing Laboratory / Standards and Testing Centre
- SGS Hong Kong Limited
- CMA Testing and Certification Lab.
- TUV Rheinland Hong Kong Limited
- Roche Pharmaceuticals
- Jean-Marie Pharmacal Co. Ltd./Europharm Laboratoires Company Limited
Which industries our 2018 graduates are serving?

- Education: 29.6%
- Business Service & Real Estate: 18.5%
- Engineering, Architectural & Technical Services: 22.2%
- Manufacturing: 14.8%
- Community, Social & Personal Services: 7.4%
- Hospitality & Tourism Services: 3.7%
- Trading: 3.7%
Stay connected

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