Department of Chemistry

Bachelor of Science in Chemistry

(Targeted Intake: 50)
Aims and Objectives of the Major

**Chemistry**

To provide a solid foundation in biology and chemistry with specialization in Analytical Chemistry, and Environmental Chemistry.

This major aims to provide students with a firm foundation in chemical sciences with a focus in analytical chemistry, environmental chemistry, inorganic chemistry, organic chemistry, and physical chemistry. It is expected to train and produce graduates who are able to pursue a developing career in local and regional industrial, commercial, government, education, and research sectors.

Hong Kong Diploma of Secondary Education (HKDSE) Students

Admission Code JS1202 – BSc Chemistry (Targeted Intake: 50)*

General Entrance Requirements

<table>
<thead>
<tr>
<th>Minimum Level Required</th>
<th>Core Subjects</th>
<th>Two Elective Subjects**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 3</td>
<td>Level 3 in one elective subject from:</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>• Chemistry</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>• Combined Science</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>(Chemistry, Physics)</td>
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<tr>
<td></td>
<td></td>
<td>• Combined Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Chemistry, Biology)</td>
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<tr>
<td></td>
<td></td>
<td>Level 3 in any elective subjects</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>Level 3 in one elective subject from:</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>• Biology</td>
</tr>
<tr>
<td></td>
<td>Level 3</td>
<td>• Chemistry</td>
</tr>
<tr>
<td></td>
<td>Level 2</td>
<td>• Physics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Science (Combined or Integrated)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Business, Accounting and Financial Studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Accounting or Business Management)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Design and Applied Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Information and Communication Technology</td>
</tr>
</tbody>
</table>

* The 2019/20 Academic Year is the start of the 2019-2022 triennium for which UGC-funded programmes are still subject to the Government’s and the Legislative Council’s approval. The number of student intake places shown in this leaflet is indicative only and subject to change or confirmation at a later date.

** 1. Unspecified elective subjects may include “other languages” at grade E or above.
2. If students take both M1 and M2, they will be counted as one elective only.
3. Applied Learning subjects are not counted as elective subjects.

First Year Curriculum Structure (Bachelor’s Degree)

<table>
<thead>
<tr>
<th>Component</th>
<th>Credit Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gateway Education (GE)</td>
<td>6</td>
</tr>
<tr>
<td>(a) University English &amp; Discipline-specific English OR English for Academic Purposes (depending on students’ language background)</td>
<td></td>
</tr>
<tr>
<td>(b) Chinese Civilisation – History and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>College/School-specified Courses</td>
<td>6</td>
</tr>
<tr>
<td>(a) Mathematics</td>
<td></td>
</tr>
<tr>
<td>(b) Computing</td>
<td>3</td>
</tr>
<tr>
<td>College Requirement</td>
<td>6</td>
</tr>
<tr>
<td>Science (choose two from the following three subject areas: Physics / Chemistry / Biology)</td>
<td></td>
</tr>
<tr>
<td>Courses specified by the Department (CHEM)</td>
<td>6</td>
</tr>
<tr>
<td>Any courses e.g. GE courses, the remaining science course (Physics / Chemistry / Biology)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
Direct Application

CHEM Major Programmes

- **Admission Code 1202**
  - Bachelor of Science in Chemistry (CHEM)
  - (for Normative 4-year Degree)

- **Admission Code 1523A**
  - Bachelor of Science in Chemistry (CHEM)
  - (for Advanced Standing I and II admission)

Direct application is the non-JUPAS route for students who hold other qualifications such as GCE A-Levels, an IB Diploma, a sub-degree or an overseas qualification. Applicants seeking admission on the basis of Hong Kong Diploma of Secondary Education (HKDSE) results should apply through the JUPAS route.

Non-Local Qualifications or Mature Age Applications

Most school-leaving qualifications acceptable for university entry are recognized. Applicants whose entrance qualification is obtained in a language other than English will need a satisfactory score in TOEFL [550 (paper-based test) or 79 (Internet-based test)], an IELTS (overall band score of 6.5), or other acceptable English qualifications.

Mature local applicants are eligible to apply for admission to first-year studies even if they do not satisfy any of the above requirements. Mature applicants must be over the age of 25 by 1 September of the year of admission and be able to demonstrate their aptitude and suitability for study.

Admission Arrangements for Direct/Non-JUPAS Applicants

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.

Applicants holding a 13-year school-leaving qualification, [an International Baccalaureate (IB) Diploma and General Certificate of Education Advanced Level (GCEAL)] or degree transfer students may apply for admission to first-year studies in BSc Chemistry, or admission to BSc Chemistry with Advanced Standing I (non-senior-year).
Proactive Enhancement of Student Learning

• **Overseas Studying Opportunities**
  - Student Exchange Programme
  - Study Tours

• **On-campus Learning Opportunities**
  - Campus Internship Scheme (CIS)
  - Campus Work Scheme (CWS)
  - Summer Research Scholarship Scheme
  - Student Mentoring Scheme

• **Internship/Placement Opportunities**
  - Industrial Attachment Scheme (IAS)
  - Overseas Internship Scheme (OIS)
  - Summer Research Placement Scheme

Career Opportunities

Graduates are open to a wide range of career opportunities:

**Civil Service:**
- Assistant Environmental Protection Officers (Environmental Protection Department)
- Chemists (Government Laboratory)
- Agricultural Officers, Fisheries Officers and Forestry Officers (Agriculture, Fisheries and Conservation Department)
- Executive Officers in various government departments

**Commerce:**
- Sales Executives
- Managers
- Specialists for scientific instruments, medical & pharmaceutical products
- IT consultants

**Environmental Consultancy:**
- Consultants
- Assistant Consultants
- Consultant Trainees
- Environmental Auditors

**Laboratories:**
- Analytical Chemists
- Environmental Chemists
- Quality Management Chemists
- Microbiologists
- Environmental Biologists
- Quality Management Biologists
- Quality Managers
- Environmental Scientists
- Scientific Officers

**Industry:**
- Research and Development
- Biologists
- Chemists
- Production Supervisors
- Pollution Control Officers
- Technical Officers

**Education:**
- Secondary School Teachers
- Teaching Assistants
- Technicians in tertiary institutes
- Research Assistants

**Further Studies:**
- Postgraduate students in local and overseas universities