For further information, please contact:

Department of Chemistry
P5101, 5/F, Yeung Kin Man Academic Building (YEUNG)
City University of Hong Kong
Tat Chee Avenue
Kowloon
Hong Kong

Tel : (852) 3442 7404
Fax : (852) 3442 0522
E-mail : chem.enquiry@cityu.edu.hk
Website : http://www.cityu.edu.hk/chem

CONTENTS

revised on 28 August 2026`

INTRODUCTION

This Handbook contains useful information for students enrolled in Bachelor of Science in Chemistry. Students are advised to familiarize themselves with this Handbook so as to obtain a general overview of the Department and its teaching courses. It is, however, intended to be read in conjunction with other official information posted by the Academic Regulations and Records Office, such as the CityUHK Academic Regulations and the CityUHK Academic Calendar which are available on the website of the Academic Regulations and Records Office.

The Department offers one full-time undergraduate major in Chemistry. This major also has three study streams, namely Comprehensive Chemistry, Cosmetic Chemistry and Forensic Chemistry to provide students with in-depth knowledge in a selected area in Chemistry based on their own interests and future career goals.

In addition, the BSc programme in Chemistry (Comprehensive Chemistry Stream) has been accredited by the Royal Society of Chemistry (RSC). This will upkeep the quality of the programme to an internationally competitive standard and enhance our graduates' employability.

1. BSc MAJOR PROGRAMME MANAGEMENT TEAM

Major Leader	Prof. LO Kam Wing Kenneth (Chairperson)
Deputy Major Leader	Prof. PENG Yung-kang
Subject Leader	Prof. LO Kam Wing Kenneth
First Year Tutor	Prof. KWOK Chun Kit
Second Year Tutor	Prof. SUN Hongyan
Third Year Tutor	Prof. LO Pik Kwan Peggy
Fourth Year Tutor	Prof. SIU Chi Kit Andy
Admission Tutor	Prof. LAU Kai Chung
Deputy Admission Tutors	Prof. FU Wai Chung Stephen Prof. LO Pik Kwan Peggy
Project Coordinator	Prof. BABAK Maria
Timetabling Officer	Prof. LAU Kai Chung

2. MODE OF ATTENDANCE AND DURATION

Normally 4 years full-time (FT)
for Advanced Standing I : 3 years
for Advanced Standing II : 2 years

3. AIMS

The aims of the degree programme in the Department of Chemistry are to train and produce graduates who are suitably educated to pursue a developing career in one or more of the following areas: analytical chemistry, environmental chemistry, inorganic chemistry, organic chemistry and physical chemistry and to meet local and regional requirements in the industrial, commercial, government or education sectors.

4. SPECIFIC MAJOR INTENDED LEARNING OUTCOMES

On completion of the major, Chemistry graduates will be able to:

Describe the general chemical principles appropriate to the study of chemistry.

- Explain the important aspects of chemical terminology, nomenclature, convention and units.
- Describe the structure and properties of atoms, ions, molecules and materials.
- Apply the principles of thermodynamics and kinetics to chemistry.
- Apply the principles and procedures used in chemical analysis and characterization.

Competently perform a wide range of laboratory and technical procedures in chemistry.

- Handle chemicals in a professional manner, through knowledge and adherence to chemical safety legislation.
- Operate laboratory procedures in synthetic and analytical chemistry.
- Evaluate experimental data through testing hypotheses, defining problems and creating innovative and practical solutions.
- Communicate and cooperate with other personnel and participate as an effective team member.

Critically evaluate experiments in chemistry as reported in the literature and synthesize information in a constructive manner.

- Demonstrate the ability in oral and written presentations and recognize the limitations inherent in hypotheses.
- Develop strategies for creating, updating, maintaining and enhancing knowledge in chemistry.

Identify, analyze and reflect upon the responsibilities of chemists by applying chemical knowledge to society, commerce and the environment.

- Apply knowledge of synthetic chemistry for the discovery and design of compounds with new and interesting properties.
- Apply the concepts and principles of chemical analysis to environmental, industrial, biological and food sciences.
- Apply chemical knowledge to address ethical and social issues in the work environment.

5. STRUCTURE AND ASSESSMENT OF PROGRAMME
(For Normative 4-year Degree)

Period of Study

The BSc programme is operated under the Credit Unit System. The major comprises **120-144** credit units to be undertaken normally within four academic years. Each academic year comprises two 13-week semesters, Semester A and Semester B with an end of semester examination. Each course offered in a major may require a student to attend between 2 and 8 hours of classes per week, either as lectures, tutorials and/or practicals.

Academic Structure

Please refer to the web-version of the "Academic Regulations" for guidelines and specific academic regulations under the Credit Unit System. In summary, BSc degree programme is composed of courses which can be classified as "***Major Required Courses***" or "***Major Elective Courses***". A list of **required** and **elective** courses is shown in Appendix I. Each major is made up of four main components as detailed below:

For Chemistry Major

Degree Requirements	**Normative 4-year Degree**	**Normative 4-year Degree (GREAT Stream)**	**Advanced Standing I**	**Advanced Standing II (Senior-year Entry)**
Gateway Education Requirement	**31 CU**	**31 CU**	**22 CU**	**12 CU**
University Requirements				
1.*GE English*	6 CU	6 CU	6 CU	3 CU
2.*Chinese Civilisation – History and Philosophy*	3 CU	3 CU	3 CU	Not a compulsory requirement
3. *GE1601 Whole-Person Development*	1 CU	1 CU	1 CU	
Distributional Requirements	12 CU	12 CU	6 CU	3 CU
Area 1: Arts and Humanities	*(At least one course from*	*(At least one course from*	*(From two different*	
Area 2: Study of Societies, Social and Business Organisations	*each of the three areas)*	*each of the three areas)*	*areas)*	
Area 3: Science and Technology				
College/School-specified Courses^/*	9 CU^	9 CU^	6 CU*	6 CU*
College Requirement	**6 CU**	**13 CU**	**0 CU** (6 CU waived)	**0 CU** (6 CU waived)
Major Requirement	**66 CU**	**55-59 CU**	**57 CU**	**45 CU**
Required Courses				
Courses that must be passed to complete a major	(Core: 38 Elective: 28)	(Core: 41 Elective: 14-18)	(Core: 38 Elective: 19)	(Core: 38 Elective: 7)
Elective Courses				
Courses chosen from a defined set of courses				
Free Electives	**18 CU**	**18-22 CU**	**12 CU**	**3 CU**
Any courses which are not included in the above three requirements				
Minimum Credit Units for Graduation	**121 CU**	**121 CU**	**91 CU**	**60 CU**

^/* College/School-specified courses for fulfilling the Gateway Education requirement

Course Code	Course Title	Level	Credit Units	Remarks
Normative 4-year Degree				
MA1200/ MA1300	Calculus and Basic Linear Algebra I/ Enhanced Calculus and Linear Algebra I	B1	3	
MA1201/ MA1301	Calculus and Basic Linear Algebra II/ Enhanced Calculus and Linear Algebra II	B1	3	
CS1102/ CS1302	Introduction to Computer Studies/ Introduction to Computer Programming	B1	3	
Advanced Standing I				
Any courses not within the Major Requirement (including core courses and electives)				
Advanced Standing II (Senior-year Entry)				
Any courses not within the Major Requirement (including core courses and electives)				

For the stream of Global Research Enrichment and Technopreneurship Programme (GREAT):

Course Code	Course Title	Level	Credit Units	Remarks
MA1200/ MA1300	Calculus and Basic Linear Algebra I/ Enhanced Calculus and Linear Algebra I	B1	3	
MA1201/ MA1301	Calculus and Basic Linear Algebra II/ Enhanced Calculus and Linear Algebra II	B1	3	
CS1302	Introduction to Computer Programming	B1	3	

College Requirement

Course Code	Course Title	Level	Credit Units	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
Normative 4-year Degree (6 credit units)				
*Choose **two** from the following four science subject areas:*				
Biology				
CHEM1200	Discovery in Biology	B1	3	
Chemistry				
CHEM1101/ CHEM1300	Introduction to Chemistry/ Principles of General Chemistry	B1	3	
Mathematics				
MA1501/ MA1502	Coordinate Geometry/ Algebra	B1	3	
Physics				
PHY1101/ PHY1201	Introductory Classical Mechanics/ General Physics I	B1	3	
Compulsory attendance for the following two soft skills courses:				
CSCI1001 CSCI1002	Employability for Scientists Career Lab for Scientists	B1	0	
Advanced Standing I (0 credit unit)				
College Requirements waived.				
Advanced Standing II (Senior-year Entry) (0 credit unit)				
College Requirements waived.				

Note: Students planning to take PHY1201 General Physics I without high school Physics background will be required to take PHY1200 Foundation Physics (a non-credit bearing course in fundamental Physics).

For the stream of Global Research Enrichment and Technopreneurship Programme (GREAT):

Course Code	Course Title	Level	Credit Units	
Research Methodology				
CSCI2002	Workshop on Research Methodology	B2	1	
College Requirements I (6 credit units)				
*Choose **two** from the following six courses:*				
Chemistry				
CHEM1300	Principles of General Chemistry	B1	3	
CHEM2006A	Principles of Inorganic Chemistry	B2	3	
CHEM2007A	Principles of Organic Chemistry	B2	3	

Mathematics				
MA2509	Discrete Mathematics	B2	3	
Physics				
PHY1101	Introductory Classical Mechanics	B1	3	
PHY1202	General Physics II	B1	3	
College Requirements II (6 credit units)				
*Choose **two** from the following four courses:*				
Chemistry				
CHEM2004A	Principles of Analytical Chemistry	B2	3	
CHEM2008A	Principles of Physical Chemistry	B2	3	
Mathematics				
MA1501	Coordinate Geometry	B1	3	
Physics				
PHY1203	General Physics	B1	3	

Maximum Credit Unit Limit Permitted under the 4-year Degree Structure

The maximum number of credit units permitted for a degree is as follows:

Normative 4-year Degree: 144 credit units
Advanced Standing I: 114 credit units
Advanced Standing II: 84 credit units

Students who have completed the maximum credit units permitted as mentioned above cannot register for further courses in subsequent semesters/terms except for (a) those pursuing a double major or double degree paying the extra credits exceeding the above maximum credit limit on a self-financed basis; or (b) students who have been granted special permission to exceed the maximum credit limit.

The credits earned from taking LC0200A (3 credit units) and/or LC0200B (3 credit units) and CHIN1001 (3 credit units) will not be counted towards the minimum credit units required for graduation and will not be included in the calculation of cumulative grade point average (CGPA). **However, they will be counted towards the maximum credit units permitted.**

If the credit load exceeds the maximum credit limit (including degree/major requirements + LC0200A, LC0200B and CHIN1001) **for pursuing a minor,** approval must be granted from the Associate Provost (Academic Affairs) via Head and Dean on a very exceptional basis.

Gateway Education Requirements

University Requirements (Required Courses) (10 credit units)

1. Gateway Education English Courses

The GE English consists of **two academic English courses**:

1.1 **University English (3 credit units)**: the course focuses on more general aspects of English rhetoric, composition, argumentation and critical reading and writing.

1.2 **Discipline-specific English (3 credit units)**: the course focuses on more discipline-specific aspects of English.

Students scoring Level 4 in HKDSE English Language or Grade D in HKALE AS-level Use of English and above will take two academic English courses:
- University English course: GE1401 University English
- Discipline-specific English course: GE2401 English for Science

Students scoring below Level 4 in HKDSE English Language or Grade D in HKALE AS-level Use of English or students who do not possess an equivalent qualification are required to successfully complete the **English for Academic Purposes (EAP) courses** (LC0200A (3 credit units) and LC0200B (3 credit units)) offered by the Chan Feng Men-ling Chan Shuk-lin Language Centre before they can advance to the GE English courses. Students who have achieved a grade B or above in their overall course results for LC0200A will be permitted to exit the programme at this point. They will achieve 3 credit units and also be considered to have satisfied the pre-requisite for entry to the GE English courses.

2. Chinese Civilisation – History and Philosophy (3 credit units)

The course GE1501 Chinese Civilisation – History and Philosophy helps students explore both the past and present issues in Chinese history and philosophy and also their self-identity in the modern world.

Students scoring below Level 4 in HKDSE Chinese Language, or Grade D in HKALE AS-level Chinese Language and Culture will be required to successfully complete **CHIN1001 University Chinese I** (3 credit units) offered by the Chan Feng Men-ling Chan Shuk-lin Language Centre (CL) before they can advance to the GE Chinese course.

3. Whole-Person Development (1 credit unit)

This course is designed to provide students with a wide array of dimensions ranging from national education and national security education, leadership with compassion and empathy, social responsibility, good citizenship, positive education and psychological well-being, as well as personal characteristics. All incoming students at CityUHK are required to complete this course during their first year.

For the most updated information of the GE Requirements, please visit the website of Programme and Course Catalogue:
https://www.cityu.edu.hk/catalogue/ug/current/catalogue/catalogue_UC.htm?page=B/ge_requirement.htm

Distributional Requirements (12 credit units)
Students are also required to take a minimum of 3 credit units from each of the three areas below:

Area 1:	Arts and Humanities
Area 2:	Study of Societies, Social and Business Organisations
Area 3:	Science and Technology

College/School-specified Courses (9 credit units)
Students of Normative 4-year Degree are required to take College/School-specified courses for 9 credit units.
Students of Advanced Standing I and II are also required to take any courses not within the Major Requirement (including core courses and electives) as College/School-specified courses for 6 credit units.

College Requirement (6 credit units)

University Requirement
Students are required to fulfil the internship/consultancy project/research project requirement in accordance with the requirements stipulated by the respective college/school[1]. For details, please refer to Appendix I-4.

[1] The University Requirement stipulated in Academic Regulation for Undergraduate Degree 4.9.2 only applies to normative 4-year degree students admitted in 2022/23 and thereafter.

6. ACADEMIC REGULATIONS FOR UNDERGRADUATE DEGREE

1. **Study Load**
2. **Change of Home Major**
3. **Student Exchange Programme**
4. **Assessment and Progression**

   When a student's SGPA or CGPA falls below 2.00, the student will be given a warning letter issued by the Head of Department. Students may be advised to reduce their study load in the following semester, or be given an academic warning.

5. **Academic Termination**
6. **Award Classification for Undergraduate Degree Programmes**
7. **Repeating Courses to Improve Grades**
8. **Grading of Courses**

The most up-to-date academic regulations for undergraduate degrees can be found on the ARRO's website.

7. ACADEMIC HONESTY

1. **Rules on Academic Honesty**
2. **University Requirement on Academic Honesty**

8. MINIMUM PASSING REQUIREMENT

Starting from Semester A, 2015/16, undergraduate students must satisfy the following minimum passing requirement for courses offered by CHEM:
"A minimum of 40% in both coursework and examination components."

9. IMPORTANT NOTES FOR COURSE REGISTRATION

1. The maximum capacity for laboratory practical session is **48** in view of limited seating available in teaching laboratories.
2. In case of the course(s) oversubscribed, higher priority will be given to final year students to take the course(s).
3. An elective course will be cancelled if **24** students or less register for the course.
4. DegreeWorks
   - It is a web-based degree audit and academic advising tool.
   - It matches a student's academic record against the curriculum requirements and helps students learn easily what courses they still need to take to fulfill the requirements of College/School, Gateway Education (GE), major, minor, etc.
   - It provides features that help students plan their studies and communicate with their advisors, for example, "What If", "Look Ahead", "Plans" and "Term Calculators" and "Advice Calculators" functions.
   - Students are reminded to make good use of DegreeWorks and review their "Study Plan" in AIMS annually.
   - For details, please visit ARRO's website: http://www6.cityu.edu.hk/arro/content.asp?cid=482.

10. COURSES AND RESPECTIVE COURSE LEADERS

(Courses offered to students of the Chemistry major)

CHEM1101	Introduction to Chemistry	Prof. SIU Chi Kit Andy
CHEM1200	Discovery in Biology	Prof. RUAN Yuefei Phoebe
CHEM1300	Principles of General Chemistry	Prof. SIU Chi Kit Andy
CHEM2003	Biochemistry *(BMS2004 Biochemistry is an equivalent course offered to students from 2017/18.)*	To be announced
CHEM2004	Principles of Analytical Chemistry	Prof. LO Pik Kwan Peggy
CHEM2005	Principles of Environmental Chemistry	Prof. LI Xing
CHEM2006	Principles of Inorganic Chemistry	Prof. SHAN Jieqiong Jacqueline
CHEM2007	Principles of Organic Chemistry	Prof. LUO Jingdong
CHEM2008	Principles of Physical Chemistry	Prof. LAU Kai Chung
CHEM2071	Biological Chemistry	Prof. SUN Hongyan
CHEM2073	Entrepreneurship Programme In Chemistry 1	Prof. PENG Yung-kang
CHEM2809	Science Versus Crime	Prof. BABAK Maria

CHEM3012	Genetics *(BMS3203 Genetics is an equivalent course offered to students from 2022/23; not offered in 2026/27)*	-
CHEM3014	Inorganic Chemistry	Prof. LU Zhenpin
CHEM3015	Organic Chemistry	Prof. LI Xing
CHEM3016	Physical Chemistry	Prof. WANG Xin
CHEM3027	Analytical Chemistry	Prof. LO Kam Wing Kenneth
CHEM3038	Environmental Sampling and Risk Assessment	To be announced
CHEM3042	Directed Studies in Biology/Chemistry/ Environmental Sciences	Prof. MATSUDA Yudai
CHEM3052	Chemistry Beyond the Molecule: Supramolecular Chemistry	Prof. CHAN Michael Chi Wang
CHEM3053	Computational Chemistry	Prof. LAU Kai Chung
CHEM3055	Green Chemistry	To be announced
CHEM3081	Chemical Biology of DNA and RNA	Prof. KWOK Chun Kit
CHEM3082	Graphene: Fundamentals and Emergent Applications	Prof. LY Thuc Hue
CHEM3083	Cosmetic Chemistry	Prof. WONG Chun Yuen Alex
CHEM3084	Forensic Imaging	Prof. KOT Brian Chin Wing
CHEM3085	Gemological Science	Prof. LAU Kai Chung
CHEM4021	Environmental Pollution	Prof. FU Wai Chung Stephen
CHEM4022	Environmental Toxicology	To be announced
CHEM4029	Advanced Analytical Chemistry	To be announced
CHEM4030	Advanced Inorganic Chemistry	Prof. FAN Zhanxi
CHEM4031	Advanced Organic Chemistry	Prof. LUO Jingdong
CHEM4033	Industrial Chemistry	To be announced
CHEM4034	Environmental Control and Waste Treatment	To be announced
CHEM4035	Environmental Measurements	Prof. RUAN Yuefei Phoebe
CHEM4036	Project	Prof. BABAK Maria
CHEM4037	Seminar Series	Prof. BABAK Maria
CHEM4041	Selected Topics in Chemistry	Prof. SUN Hongyan
CHEM4043	Food Chemistry	Prof. KO Chi Chiu Vincent

CHEM4045	Medicinal Chemistry	Prof. ZHU Guangyu
CHEM4051	Forensic Chemistry	Prof. KO Chi Chiu Vincent
CHEM4054	Chemical Bonding and Molecular Spectroscopy	Prof. LAU Kai Chung
CHEM4084	Crystallography/Solid-state Inorganic Chemistry	Prof. ZHU Zonglong
CHEM4085	Testing and Certification Sciences	To be announced
CHEM4086	Independent Research I	Prof. BABAK Maria
CHEM4087	Independent Research II	Prof. BABAK Maria
CHEM4088	Entrepreneurship Programme In Chemistry 2	To be announced
CHEM4089	Techniques and Instrumentation for Chemical Biology	To be announced
CHEM4090	Natural Product Chemistry	Prof. MATSUDA Yudai
CHEM4091	Advanced Cosmetic Chemistry	Prof. WONG Chun Yuen Alex
BMS2004	Biochemistry	Ms TSANG Wai Fan Fannie
CS1102	Introduction to Computer Studies	(Sem A) Prof. LUO Yuhan
CS1302	Introduction to Computer Programming	(Sem A) Prof. DONG Minjing
CS2204	Fundamentals of Internet Applications Development	(Sem B) Prof. LUO Yuhan
CS2360	Java Programming	(Sem A) Prof ZUO Jinhang
CSCI1001	Employability for Scientists	Prof. YU Wing Chi
CSCI1002	Career Lab for Scientists	Prof. YU Wing Chi
CSCI2002	Workshop on Research Methodology	Prof. SIU Chi Kit Andy
CSCI3001	Grand Challenges in the World	Prof. LAU Condon
CSCI4002	Industrial Attachment Scheme for Science Students	Prof. HO Daniel
CSCI4005	Overseas Internship Scheme for Science Students	Prof. KWOK Chun Kit
CSCI4007	Patent Application and Technopreneurship	-
GE1401	University English	Prof. LAN Ge
GE1501	Chinese Civilisation – History and Philosophy	Dr. CHUI L S Lisa
GE1601	Whole-Person Development	-
GE2401	English for Science	Prof. MOORHOUSE Benjamin

MA1200	Calculus and Basic Linear Algebra I	(Sem A) Dr. CHAN Oi Man Emily (Sem B) Dr. WANG Jingjing
MA1201	Calculus and Basic Linear Algebra II	(Sem A) Prof. WYLIE Jonathan (Sem B) Prof. QIU Weifeng
MA1300	Enhanced Calculus and Linear Algebra I	Prof. XIANG Wei
MA1301	Enhanced Calculus and Linear Algebra II	Prof. LO Wing Cheong
MA1501	Coordinate Geometry	Dr. CHAN Oi Man Emily
MA1502	Algebra	Dr. CHAN Oi Man Emily
MA2172	Applied Statistics for Sciences and Engineering	Prof. ZHUANG Xiaosheng
MA2509	Discrete Mathematics	Prof. HAN Fuqun
MGT2324	Introduction to Entrepreneurship	Prof. SHIN Dong Hyun
MGT4305	Developing and Presenting a Business Plan	Mr. CHOW Jimmy
PHY1101	Introductory Classical Mechanics	(Sem A) Prof. ZHONG Y M (Sem B) Prof. WANG Xin *(PHY)*
PHY1201	General Physics I	(Sem A) Prof. DAHLSTEN Oscar (Sem B) Prof. OU Jeff
PHY1202	General Physics II	(Sem A) Prof. CHU S T (Sem B) Prof. WANG Junling
PHY1203	General Physics III	(Sem B) Prof. ZHANG Ge

**Details of individual courses are available on the CHEM departmental homepage.

11. SERVICING COURSES AND RESPECTIVE COURSE LEADERS

Students can choose these servicing courses as "Free Electives".

CHEM2007B	Principles of Organic Chemistry	Prof. LU Zhenpin
CHEM2013	Microbiology	Ms TSANG Wai Fan Fannie (BMS)
CHEM3017	Molecular Biology	To be announced
CHEM3068/ CHEM3068A	General Ecology	Prof. CHEUNG Siu Gin
CHEM4039	Environmental Conservation and Resources Management	To be announced
CHEM4078/ CHEM4078A	Aquatic Ecology	Prof. CHEUNG Siu Gin
GE1346	The Chemists Kitchen (The Science of Food and Cooking)	Prof. KO Chi Chiu Vincent
GE1353	Science, Buddhism, and Life	Prof. WONG Chun Yuen Alex
GE1357	Introduction to Chemistry	Prof. SIU Chi Kit Andy
GE2322	The Nobel Prize: A Discovery Approach to Human Greatness	To be announced
GE2333	The Science of Cosmetics	Prof. WONG Chun Yuen Alex
GE2334	Science Versus Crime	Prof. BABAK Maria

**Details of individual courses are available on the CHEM departmental homepage.

12. MAJOR PROGRAMME MANAGEMENT AND STAFF-STUDENT COMMUNICATION

Major Programme Committee and Major Leader

The Major Programme Committee is the departmental body responsible for the overall management, operation and quality assurance of the majors. The Committee consists of academic staff and student members. Two students from each major-year, elected by and from the students studying in each year of the major, are appointed to the Committee on a one-year term. **For 2026/27, the Chairperson of the BSc Major Programme Committee is Prof. LO Kam Wing Kenneth who is also the Major Leader**. Prof. LO is responsible for the development of the curriculum and give academic advice to students in relation to the selection of courses. The Major Leader reports to the Head of Department and is responsible for the effective operation of the major.

Subject Leader

The Subject Leader is responsible for the development of the curriculum and give academic advice to students in relation to the selection of courses. **For 2026/27, the Subject Leader is Prof. LO Kam Wing Kenneth.**

Joint Staff-Student Consultative Committee (JSSCC)

Student feedback is an important element for the quality assurance process of the major. The JSSCC is established to provide a channel of consultative process between students and staff in the Department. The meetings are conducted in an informal manner and are held once every semester. Students are encouraged to express their views and suggestions on the content, organization and teaching of the majors. The JSSCC is made up of student representatives (two from each major-year) and the Year Tutors. **The Chairperson of the JSSCC for 2026/27 is Prof. KWOK Chun Kit.**

Academic Staff

If you encounter any difficulties in a particular course, you should consult the academic staff concerned without delay. They can be reached by phone or by email. For any problems relating to laboratory classes, laboratory demonstrators are also available for your assistance.

Year Tutors

In order to cultivate a better relationship between students and academic staff, the Year Tutors, who report to Major Leader, are appointed for organising non-academic activities for the students. Their general duties include making scholarship nominations, liaising with Student Development Services (SDS), and organising industrial placements for students etc. For the current academic year of 2026/27, the Year Tutors and their specific responsibilities are listed below:

First Year Tutor	Second Year Tutor	Third Year Tutor	Fourth Year Tutor
Prof. KWOK Chun Kit	***Prof. SUN Hongyan***	***Prof. LO Pik Kwan Peggy*** • Orientation Day Coordinator	***Prof. SIU Chi Kit Andy*** • Student Exchange Coordinator

Student Mentoring Scheme

City University of Hong Kong is operating a mentoring system for new students to help them to adapt to the learning environment of the University. The Department has joined this system since 1996. We aim to foster a better relationship between the academic staff and students, and to facilitate students' whole personal development so that they can make the best of their university education. Together with one senior student, each academic staff member will mentor a group of Year One students. Students may approach their staff or student mentor at any time, especially on matters relating to their academic programme and learning. Staff and student mentors will organise activities throughout your first year to enhance group dynamics. **The coordinator for the Student Mentoring Scheme 2026/27 is Prof. MATSUDA Yudai.**

Canvas

Canvas is an e-learning platform established for all undergraduate and postgraduate courses which can also be used as a means of communication for staff and students. Through Canvas, students can provide feedback to the Major Leaders or Year Tutors throughout the whole year and thus maintain a continuous dialogue with them.

Wiki Site for CHEM students

A special channel has been created to facilitate our communication with students. The link can be found under "Related Links" on the homepage of the CHEM website. The Wiki Site is the main platform to provide important news and announcements for CHEM students' attention. Please check the Wiki Site on a regular basis.

Student Development Services (SDS)

The SDS of the CityUHK provides many student-centred services that every CityUHK student can participate in. It provides support and assistance for students in the following ways:

- Attain an all-round development
- Enrich campus life
- Make career plans and choices
- Solve personal problems
- Enhance physical and mental well-being
- Seek financial assistance
- Apply for scholarship
- Solicit welfare provisions

For details, please visit its website at **"http://www.cityu.edu.hk/sds"**.

Do make use of this opportunity to enrich your university life!

Appendix I : Major

&

Appendix II : Recommended Study Plan

BSc in Chemistry

For Students admitted to the major in 2026/27 (Normative 4-year Degree)

1. Gateway Education Requirements (31 credit units)

University Requirements (Required Courses) (10 credit units): Students must satisfy the following requirements before graduation.

- **GE English (6 credit units)**

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
GE1401	University English	B1	3	A/B	
GE2401	English for Science	B2	3	A/B	
Students who are required to take English for Academic Purposes 1 & 2 (LC0200A and LC0200B) must successfully complete 6 credit units before studying GE1401 and GE2401. Students have achieved a B grade or above in their overall course result for LC0200A will be permitted to exit the programme at this point and proceed to the GE English courses.					

- **Chinese Civilisation – History and Philosophy (3 credit units)**

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
GE1501	Chinese Civilisation – History and Philosophy	B1	3	B	
Students scoring below Level 4 in HKDSE Chinese Language, or below Grade D in HKALE AS-level Chinese Language and Culture are also required to take a 3-credit unit Chinese course (CHIN1001).					

- **GE1601 Whole-Person Development (1 credit unit)**

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
GE1601	Whole-Person Development	B1	1	A	

- **Distributional Requirements (12 credit units)**

  Students are required to take a minimum of 3 credit units from each of the three areas below:

  Area 1 : Arts and Humanities

  Area 2 : Study of Societies, Social and Business Organisations

  Area 3 : Science and Technology

- **College/School-specified courses for fulfilling the Gateway Education requirement (9 credit units)**

Course Code	Course Title	Level	Credit Units	Remarks
MA1200 / MA1300	Calculus and Basic Linear Algebra I/ Enhanced Calculus and Linear Algebra I	B1	3	
MA1201 / MA1301	Calculus and Basic Linear Algebra II/ Enhanced Calculus and Linear Algebra II	B1	3	
CS1102 / CS1302	Introduction to Computer Studies/ Introduction to Computer Programming	B1	3	

For the stream of Global Research Enrichment and Technopreneurship Programme (GREAT):

Course Code	Course Title	Level	Credit Units	Remarks
MA1200 / MA1300	Calculus and Basic Linear Algebra I/ Enhanced Calculus and Linear Algebra I	B1	3	
MA1201 / MA1301	Calculus and Basic Linear Algebra II/ Enhanced Calculus and Linear Algebra II	B1	3	
CS1302	Introduction to Computer Programming	B1	3	

2. College Requirement (6 credit units)

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
*Choose **two** from the following four science subject areas:*					
Biology					
CHEM1200	Discovery in Biology	B1	3	A/B	
Chemistry					
CHEM1101/ CHEM1300	Introduction to Chemistry/ Principles of General Chemistry	B1	3	B A/B	
Mathematics					
MA1501/ MA1502	Coordinate Geometry/ Algebra	B1	3	B A	
Physics					
PHY1101/ PHY1201	Introductory Classical Mechanics/ General Physics I	B1	3	A A/B	
Compulsory attendance for the following two soft skills courses:					
CSCI1001 CSCI1002	Employability for Scientists Career Lab for Scientists	B1	0	A B	

Note: Students planning to take PHY1201 General Physics I without high school Physics background will be required to take PHY1200 Foundation Physics (a non-credit bearing course in fundamental Physics).

For the stream of Global Research Enrichment and Technopreneurship Programme (GREAT) (13 credit units):

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
Research Methodology					
CSCI2002	Workshop on Research Methodology	B2	1	B	
College Requirements I (6 credit units)					
*Choose **two** from the following six courses:*					
Chemistry					
CHEM1300	Principles of General Chemistry	B1	3	A/B	
CHEM2006A	Principles of Inorganic Chemistry	B2	3	A	
CHEM2007A	Principles of Organic Chemistry	B2	3	A	
Mathematics					
MA2509	Discrete Mathematics	B2	3	A	
Physics					
PHY1101	Introductory Classical Mechanics	B1	3	A	
PHY1202	General Physics II	B1	3	A	
College Requirements II (6 credit units)					
*Choose **two** from the following four courses:*					
Chemistry					
CHEM2004A	Principles of Analytical Chemistry	B2	3	B	
CHEM2008A	Principles of Physical Chemistry	B2	3	B	
Mathematics					
MA1501	Coordinate Geometry	B1	3	B	
Physics					
PHY1203	General Physics III	B1	3	B	

3. Major Requirement (66 credit units)

Core Courses (38 credit units)

- **Students must take <u>ALL</u> the required courses in the following list.**

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
MA2172	Applied Statistics for Sciences and Engineering	B2	3	A	
CHEM2004	Principles of Analytical Chemistry	B2	4	B	
CHEM2006	Principles of Inorganic Chemistry	B2	4	A	

CHEM2007	Principles of Organic Chemistry	B2	4	A	
CHEM2008	Principles of Physical Chemistry	B2	4	B	
CHEM2073	Entrepreneurship Programme In Chemistry 1	B2	3	B	
CHEM3014	Inorganic Chemistry	B3	4	B	
CHEM3015	Organic Chemistry	B3	4	A	
CHEM3016	Physical Chemistry	B3	4	B	
CHEM3027	Analytical Chemistry	B3	4	A	

Major Elective Courses (28 credit units)

Advanced Standing I: 19 credit units

Advanced Standing II: 7 credit units

Course Code	**Course Title**	**Level**	**Credit Units**	**Sem**	**Remarks (e.g. College Accreditation, or Exemption requirements, etc.)**
CS2204	Fundamentals of Internet Applications Development	B2	3	B	
CS2360	Java Programming	B2	3	A	
CSCI3001	Grand Challenges in the World	B3	3	B	
CSCI4002* or CSCI4005*	Industrial Attachment Scheme for Science Students Overseas Internship Scheme for Science Students	B3	3	Summer	See footnote.
CHEM2003	Biochemistry	B2	3	B	BMS2004 Biochemistry is an equivalent course offered to students from 2017/18.
CHEM2005	Principles of Environmental Chemistry	B2	4	B	
CHEM3012	Genetics	B3	4	A Not offered	BMS3203 Genetics is an equivalent course offered to students from 2022/23.
CHEM3038	Environmental Sampling and Risk Assessment	B3	4	B Not offered	
CHEM3042*	Directed Studies in Biology/Chemistry/Environmental Sciences	B3/B4	1-4	A/B/ Summer	See footnote.
CHEM3082	Graphene: Fundamentals and Emergent Applications	B3	3	A	
CHEM3084	Forensic Imaging	B3	3	B	
CHEM3085	Gemological Science	B3	3	B	
CHEM4021	Environmental Pollution	B4	4	B	
CHEM4022	Environmental Toxicology	B4	4	A Not offered	

CHEM4036*	Project	B4	6	A/B/ Summer	See footnote.		
CHEM4037	Seminar Series	B4	3	Summer&A/ A&B			
CHEM4041	Selected Topics in Chemistry	B4	4	Summer			
CHEM4088	Entrepreneurship Programme In Chemistry 2	B4	6	Summer&A/ A&B Not offered			
				#Please note Sem/Year offer			
				2026/27	2027/28	2028/29	2029/30
CHEM2071#	Biological Chemistry	B2	4	A	Not offered	A	Not offered
CHEM3052#	Chemistry Beyond the Molecule: Supramolecular Chemistry	B3	3	Not offered	B	Not offered	B
CHEM3053#	Computational Chemistry	B3	3	Not offered	B	Not offered	B
CHEM3055#	Green Chemistry	B3	3	Not offered	Not offered	To be confirmed	Not offered
CHEM3081#	Chemical Biology of DNA and RNA	B3	3	A	Not offered	A	Not offered
CHEM3083#	Cosmetic Chemistry	B3	3	A	A	Not offered	A
CHEM4029#	Advanced Analytical Chemistry	B4	4	Not offered	Not offered	To be confirmed	Not offered
CHEM4030#	Advanced Inorganic Chemistry	B4	4	B	Not offered	B	Not offered
CHEM4031#	Advanced Organic Chemistry	B4	4	B	Not offered	B	Not offered
CHEM4033#	Industrial Chemistry	B4	4	Not offered	To be confirmed	Not offered	To be confirmed
CHEM4034#	Environmental Control and Waste Treatment	B4	4	Not offered	To be confirmed	To be confirmed	To be confirmed
CHEM4035#	Environmental Measurements	B4	4	A	Not offered	Ad	Not offered
CHEM4043#	Food Chemistry	B4	3	Not offered	A	Not offered	A
CHEM4045#	Medicinal Chemistry	B4	3	Not offered	B	Not offered	B
CHEM4051#	Forensic Chemistry	B4	3	A	Not offered	A	Not offered
CHEM4054#	Chemical Bonding and Molecular Spectroscopy	B4	3	Not offered	B	Not offered	B
CHEM4084#	Crystallography/Solid-state Inorganic Chemistry	B4	4	Not offered	A	Not offered	A
CHEM4085#	Testing and Certification Sciences	B4	4	Not offered	To be confirmed	Not offered	To be confirmed
CHEM4089#	Techniques and Instrumentation for Chemical Biology	B4	4	Not offered	Not offered	To be confirmed	Not offered
CHEM4090#	Natural Product Chemistry	B4	3	Not offered	B	Not offered	B
CHEM4091#	Advanced Cosmetic Chemistry	B4	4	B	To be confirmed	Not offered	B

*** According to the University Requirement stipulated in the Academic Regulations for Undergraduate Degrees AR4.9.2, normative 4-year degree students admitted in 2022/23 and thereafter are required to choose one of these courses marked with an asterisk. If only CHEM3042 Directed Studies in Biology/ Chemistry/ Environmental Sciences is taken among these courses, it must carry a weighting of 3 or 4 credit units.**

For the Comprehensive Chemistry stream (23 - 24 credit units):

Course Code	Course Title	Level	Credit Units	Sem	Remarks
1. Core Courses					
CHEM1300	Principles of General Chemistry	B1	3	A/B	
CHEM4030	Advanced Inorganic Chemistry	B4	4	B	
CHEM4031	Advanced Organic Chemistry	B4	4	B	
CHEM4054	Chemical Bonding and Molecular Spectroscopy	B4	3	B	
CHEM4036	Project	B4	6	Summer&A/ A&B	To be taken in Year 4*
2. Electives					
Choose at least one of the following two courses:					
CHEM3042	Directed Studies in Biology/Chemistry/Environmental Sciences	B3/B4	3 or 4	A/B/ Summer	To be taken in Year 4*
CHEM4037	Seminar Series	B4	3	Summer&A/ A&B	To be taken in Year 4*

** These courses with independent investigative methodology are required to account for 25% of the final year work load.*

For the Cosmetic Chemistry stream (14 - 16 credit units) :

Course Code	Course Title	Level	Credit Units	Sem	Remarks0
1. Core Courses					
CHEM3083	Cosmetic Chemistry	B3	3	A	
CHEM4091#	Advanced Cosmetic Chemistry	B4	4	B	
CSCI4002	Industrial Attachment Scheme for Science Students	B4	3	Summer	Project titles to be agreed by the Hong Kong Society of Cosmetic Chemists (HKSCC)
2. Electives					
Choose one out of the following two courses:					
CHEM3042	Directed Studies in Biology/ Chemistry/Environmental Sciences	B3/B4	4	A/B/ Summer	Project in CHEM3042 and CHEM4036 shall be related to Cosmetic Chemistry.
CHEM4036	Project	B4	6	Summer&A/ A&B	

For the Forensic Chemistry stream (18 - 22 credit units):

Course Code	Course Title	Level	Credit Units	Sem	Remarks
1. Core Courses					
CHEM2003	Biochemistry	B2	3	B	BMS2004 Biochemistry is an equivalent course offered to students from 2017/18.

CHEM2809	Science Versus Crime	B2	3	B	
CHEM3084	Forensic Imaging	B3	3	B	
CHEM4051	Forensic Chemistry	B4	3	A	
2. Electives					
Choose at least one out of the following two courses:					
CHEM3017	Molecular Biology	B3	4	B	
CHEM3081	Chemical Biology of DNA and RNA	B3	3	A	
Choose one out of the following two courses:					
CHEM3042	Directed Studies in Biology/ Chemistry/Environmental Sciences	B3/B4	4	A/B/ Summer	Project in CHEM3042 shall be related to Forensic Science.
CHEM4036	Project	B4	6	Summer&A/ A&B	
CHEM4037	Seminar Series	B4	3	Summer&A/ A&B	
CHEM4089	Techniques and Instrumentation for Chemical Biology	B4	4	B	

For the GREAT Stream:

Core Courses (41 credit units)

- **Students must take <u>ALL</u> the required courses in the following list.**

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
CHEM3014	Inorganic Chemistry	B3	4	A	
CHEM3015	Organic Chemistry	B3	4	B	
CHEM3016	Physical Chemistry	B3	4	B	
CHEM3027	Analytical Chemistry	B3	4	A	
CHEM4086	Independent Research I	B4	8	A/B	
CHEM4087	Independent Research II	B4	8	A/B	
MA2172	Applied Statistics for Sciences and Engineering	B2	3	A	
MGT2324	Introduction to Entrepreneurship	B2	3	A	
MGT4305	Developing and Presenting a Business Plan	B4	3	B	

Major Elective Courses (14 - 18 credit units)

Course Code	Course Title	Level	Credit Units	Sem	Remarks (e.g. College Accreditation, or Exemption requirements, etc.)
Students can select any electives from the current major electives listed under Group A and B as above <u>except</u> CHEM4036 Project.					
CSCI4007	Patent Application and Technopreneurship	B4	3	Not yet offered	

4. Minor (Optional)

A minor consists of a structured group of courses that focus on a particular academic discipline, allowing students

to develop some depth of understanding in a subject area or topic of professional interest. A minor requires 15-18 credit units. The credit units earned to fulfill the minor requirement cannot be used towards meeting the requirement for another major and/ or minor taken by the student.

5. Free Electives

After fulfilling the credit unit requirements for the GE, Major, and Minor (optional), students may choose free electives, and must do so if their cumulative credit load is below 120 credit units, the minimum required for graduation.

BSc in Chemistry
Recommended Study Plan
(For Normative 4-year Degree)

Year 1

Semesters A and B	**CUs**	
Gateway Education – University Requirements	10	For details, please refer to Appendix I - 1
College/School-specified courses	9	
College Requirement	6	
Gateway Education Distributional Requirements		

Year 2

	Semester A	**CUs**		**Semester B**	**CUs**
CHEM2006	Principles of Inorganic Chemistry	4	CHEM2004	Principles of Analytical Chemistry	4
CHEM2007	Principles of Organic Chemistry	4	CHEM2008	Principles of Physical Chemistry	4
MA2172	Applied Statistics for Sciences and Engineering	3	CHEM2073	Entrepreneurship Programme In Chemistry 1	3
GE2401∗ +	English for Science	3	GE1401∗ +	University English	3
Gateway Education Distributional Requirements			GE1501# +	Chinese Civilisation – History and Philosophy	3
			Gateway Education Distributional Requirements		
Major Elective			Major Elective		
Free Elective			Free Elective		

Year 3

	Semester A	**CUs**		**Semester B**	**CUs**
CHEM3015	Organic Chemistry	4	CHEM3014	Inorganic Chemistry	4
CHEM3027	Analytical Chemistry	4	CHEM3016	Physical Chemistry	4
Gateway Education Distributional Requirements			Gateway Education Distributional Requirements		
Major Elective			Major Elective		
Free Elective			Free Elective		

Year 4

Semester A	**CUs**	**Semester B**	**CUs**
Gateway Education Distributional Requirements		Gateway Education Distributional Requirements	
Major Elective		Major Elective	
Free Elective		Free Elective	

Remarks:

∗ Students scoring below Level 4 in HKDSE English Language or Grade D in HKALE AS-level Use of English or students who do not possess an equivalent qualification are required to successfully complete the English for Academic Purposes (EAP) courses (LC0200A (3 credit units) and LC0200B (3 credit units)) offered by Chan Feng Men-ling Chan Shuk-lin Language Centre before they can advance to the GE English courses. Students who have achieved a grade B or above in their overall course results for LC0200A will be permitted to exit the programme at this point. They will achieve 3 credit units and also be considered to have satisfied the pre-requisite for entry to the GE English courses.

Students scoring below Level 4 in HKDSE Chinese Language, or below Grade D in HKALE AS-level Chinese Language and Culture will be required to successfully complete a Chinese course (totaling 3 credit units) offered by the School of Continuing and Professional Education (SCOPE) before they can advance to the GE Chinese course.

\+ Students under the normative 4-year degree are recommended to take these courses in their Year 1 studies.

Note:

1. **In addition to the Major Required Courses, all students must complete the GE English courses of 7 credit units (i.e. GE1401 and GE2401), and 3 credit units of GE1501 Chinese Civilisation – History and Philosophy, and GE1601 Whole-Person Development. Therefore, students are advised to register in these courses as soon as possible.**

2. Normal load per semester is 16 credit units. If students wish to study more than 18 credit units, prior approval from the Department is required.