Recent Awards & Recognition to our Chemistry Teachers

2021 Silver Bauhinia Star

Professor Chi-Ming CHE has been awarded the Silver Bauhinia Star (SBS) in recognition of his remarkable achievements and contributions to a wide range of research areas in the chemistry discipline.

Professor Chi-Ming CHE has also been awarded Luigi Sacconi Medal, Ryoji Noyori Asian Chemical Editorial Society (ACES) Award and the Lifetime Achievement Award in Organometallic Chemistry, among the many other prestigious awards he has obtained, recognizing his distinguished research achievements and outstanding contributions to the fields of inorganic chemistry, bioinorganic chemistry, catalysis & luminescent materials, and organometal chemistry, respectively.

2022/23 Bailar Medalist and Lectureship

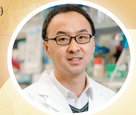
Professor Vivian Wing-Wah YAM has been named the recipient of the 2022-23 Bailar Medal by the University of Illinois at Urbana-Champaign in recognition of her distinguished achievements in the fields of inorganic chemistry and coordination chemistry. She is the first Asian scientist to receive the Bailar Medal, which recognises excellence in the field of inorganic chemistry.

Professor Vivian Wing-Wah YAM has also earned other signature accolades including the Japanese Photochemistry Association (JPA) Honda-Fujishima Lectureship Award (2022) and the Inter-American Photochemistry Society (I-APS) Presidential Award (2023) in recognition of her outstanding contribution to the field of photochemistry.

2023 RSC's Dalton Horizon Prize

Professor Hongzhe SUN and his team have been elected by the Royal Society of Chemistry (RSC)'s Dalton Prize Committee to award the 2023 Horizon Prize, for their pioneering research on the medicinal chemistry of bismuth applied to the treatment of COVID-19, and identification of target sites in SARS-CoV-2 enzymes using metallomics methods.

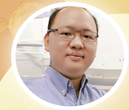
Professor Hongzhe Sun has also been awarded the Research Grants Council (RGC) Senior Research Fellowship (2021/22) for his pioneering work on metallobiology and bioinorganic chemistry.



2023 Contribution Award in Carbohydrate Chemistry

Professor Xuechen LI has been honoured with the Contribution Award in Carbohydrate Chemistry by the Chinese Chemical Society (CCS) in recognition for his dedication and commitment for advancing the science of carbohydrate chemistry.

Professor Xuechen LI has also been awarded Research Grants Council (RGC) Senior Research Fellow for 2023/24.



2023 National Natural Science Foundation of China Excellent Young Scientist Award

Dr. Zhongxing HUANG has been awarded China's Excellent Young Scientists Fund (Hong Kong and Macau) for 2023, a prestigious fund under the National Natural Science Foundation of China of the Ministry of Science and Technology. The title of his award-winning project is Asymmetric Catalysis.

2024 Tetrahedron Young Investigator Award (Bioorganic and Medicinal Chemistry)

Professor Xiang David LI has been awarded the Tetrahedron Young Investigator Award 2024 for his exceptional contributions to the field of Bioorganic and Medicinal Chemistry. His dedication, creativity, and passion for advancing scientific knowledge have made Professor Li a deserving recipient of this esteemed accolade.

Graduate Sharing

SHAFFI Raffi Mohammed

BSc (Intensive Major in Chemistry) 2023
Research Assistant – R & D Department, Vita Green Health Products

"A primary reason why I pursued the Intensive Major Curriculum of Chemistry at HKU is because I have a deep passion for chemistry and wanted to specialize in this field, hoping to learn the necessary skills and knowledge to either pursue further studies or work in a chemistry-related industry. Not only had my 4-year undergraduate experience fulfilled this expectation, it also made me realize and appreciate how multidisciplinary and multifaceted chemistry is, as chemistry itself not only has multiple areas of interests, but it can also be applied in various industries and applications. Thanks to the support of my professors, I have managed to develop a solid foundation in areas like analytical, organic, inorganic, and physical chemistry during my first 2 years, then during my last 2 years of studies, I specialized in organic chemistry by taking various advanced courses and participating in research internship projects. Through the latter, I managed to apply what I have learned in class to a practical setting, as well as learned new practical skills and techniques that were both fascinating and useful for my career path. Along the way, as not all reactions would go as planned, I had to learn what went wrong and find a suitable solution, thus allowing me to cultivate my problem-solving skills and critical thinking skills that are essential now that I am working in the pharmaceutical industry as a research assistant.

While my current work involves tablet formulation and does not seem too akin to the chemistry I learned in my undergraduate studies, the skills I acquired throughout my studies at HKU have been extremely helpful in allowing me to pursue my current job or any other future career paths I would like to pursue. As I said in the beginning, chemistry is both multidisciplinary and multifaceted, so don't be afraid that specializing it through the intensive curriculum at HKU would stifle you in any way, as the professors and the curriculum itself could very well expand your horizons and skill set, and you will ultimately realize you can do so much with a strong background in chemistry and research."

WONG Kin Long

BSc (Major in Chemistry) 2021
PhD Candidate - University of Oxford, UK

"During my undergraduate study at HKU, I got a lot of support from the teachers. They provided me with plenty of learning experiences including research internship projects. They were all supportive to answer my questions related to the courses and research skills. Through the research experiences, not only have I acquired better research skills but also developed critical thinking which I think are the most crucial skills as these help me look at an issue in different aspects. I also gained more interest in doing research and this has led me to decide to pursue further studies in chemistry. I am now doing a Doctor of Philosphy Degree in Chemistry at University of Oxford. I am glad that I can apply what I have learned in my BSc studies at HKU to start my new research journey in Oxford on enzymatic catalysts. I believe the knowledge and techniques I acquired from HKU would definitely be useful to tackle many scientific research obstacles I may have in my postgraduate studies and future career. I wish to thank HKU Chemistry Department for nurturing me as a scientist. And it was my honor to have received the G T Byrne Memorial Prize in Chemistry 2020-2021."

WONG Yin Pok George

BSc (Major in Chemistry) 2020
PhD Candidate – University of California, Los Angeles

"Throughout my undergraduate education in HKU, I have been exposed to numerous learning opportunities which have improved my knowledge and skills within the field. My research experiences in HKU have trained me to become more adept at problem solving and critical thinking, where these skills are also applicable across various disciplines. These experiences have also taught me how to deal with setbacks and allowed me to evolve into a more mature, meticulous and persistent individual. I have also explored various clubs and exchange opportunities which broadened my horizons and allowed me to try out new hobbies while cultivating long lasting friendships with students across the world. As I embark on my graduate studies in the future, I am incredibly excited to take on challenging scientific questions in Chemistry with the skills I have acquired in HKU."

HSU Ka Yuen

BSc (Intensive Major in Chemistry) 2022
Radiochemist Assistant - St. Teresa's Hospital

"Pursuing a chemistry intensive degree in HKU is indeed challenging, but the knowledge and skills that I have acquired throughout the 4-year curriculum are invaluable. The intensive program is tailored for those who wish to develop their career in chemistry-related industries or even pursue a PhD in the future. Most of the chemistry knowledge and technical skills that I have learned in this program are practical and realistic in society nowadays, in which I can really apply them in my workplace.

The department of chemistry offers a wide range of courses. After acquiring essential knowledge and skills as a good foundation in our first two years of study, we are given numerous research opportunities and laboratory sessions to really "get our hands dirty". For me, I am very grateful that I can have the opportunity to start a research topic during my final year on complex soft material. I personally found this step-by-step learning experience very suitable for those who have strong interest in chemistry or would like to sharpen their chemistry sense but don't know where to start. Don't worry, with your passion and determination towards chemistry, along with the well-planed curriculum and support offered by the department, I am sure that you can enjoy yourself learning chemistry in the coming four years and become a successful and knowledgeable person upon graduation."

LEUNG Wing Tung Christy

BSc (Intensive Major in Chemistry) 2022
Laboratory Officer - Hong Kong Productivity Council

"The Intensive Major in Chemistry Curriculum (aka HKU RSC Accredited Chemistry Programme) has equipped me with a wide array of chemistry knowledge and skills through a variety of well-designed courses covering theory, laboratory skills, internship and research experience, etc.. The programme has also given me a precious opportunity to join an internship outside HKU. The internship opportunity allowed me to apply my knowledge at work while picking up new skills through hand-on experience in workplace. The opportunity for doing undergraduate research in a research group enabled me to acquire critical thinking and problem-solving skills. All these experiences have nurtured me to become an independent person. The fruitful experience I gained here is very conducive to my future. I would like to express my gratitude to HKU Department of Chemistry for encouraging me to explore different areas of chemistry."

LEUNG Hoi Tung Daisy

BSc (Major in Chemistry) 2019
Management Trainee – The Bank of East Asia

"As a Chemistry student at HKU, I have been exposed to a myriad of opportunities, including both internal and external internships. The Chemistry-Major curriculum is a comprehensive and yet flexible one that enables students to develop an independent and logical mindset, acquire meticulous analytical skills, and allows students to choose their own interest in specific chemistry areas.

My piece of advice for prospective students who wish to join the HKU Chemistry Department is: Take hold of the generous opportunities offered by the University and the Department of Chemistry because you never know when these valuable experiences would come in handy."

Exchange Study for Chemistry-major Students

- Exchange study through HKU Worldwide Undergraduate Student Exchange Programme, the Faculty Exchange Programme, and Departmental Exchange Programme.

More Internationalization Opportunities Available for Chemistry-major Students

(The information below is subject to change)

- Professional Development for Chemistry Majors at Yonsei University in South Korea
- Summer Research at Imperial College, UK (2 months in Summer)

Students' reflections and sharing:

AU Kwing Nam Andreas

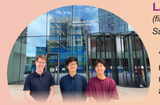
(BSc - Major in Chemistry)
Exchange study at UC Berkeley in 2022-23 S2

"Embarking on the exchange studies to UC Berkeley was one of the best decisions I have made. I immersed myself in a multi-cultural environment and met people and friends from all walks of life. I also learned a lot from scholars and peers, and gained a great deal of valuable lab experiences, from the renowned College of Chemistry at Berkeley. Traveling around the States and Mexico in my free time has further opened up my horizon and given me life insights. Overall, this 6-month journey has made me a better person."

LAM Wai Leung Alvin

(first from left; BSc - Intensive Major in Chemistry)
Summer exchange at Imperial College London in 2022-23

"Going to Imperial College and carrying out a summer research project there has been a great experience. Not only have I got a taste of what it feels like to work as a chemistry researcher, I have also learned a lot of different experimental techniques and skills as well as practical knowledge. All these may not be easily acquired from lectures. The cherry on the cake in this program would be that you get to make new friends with students and researchers around the globe, broaden your horizon and learn valuable life-lessons for personal advancement. It has been such an invaluable experience that I will cherish for a very long time."



LEUNG Ho Chi Domingo

(middle; BSc - Intensive Major in Chemistry)
Summer exchange at Imperial College London in 2022-23

"During my time at Imperial College, I had the invaluable opportunity to work closely with brilliant minds and acquire research-level synthetic techniques. This experience not only has enriched my understanding towards frontier chemistry research, but also shaped my future endeavors in doing advanced chemistry. It has been an awesome journey."

CHEUNG So Yee Jasmine

(first from left; BSc - Major in Chemistry)
Visiting study at Pembroke College, University of Cambridge in 2021-22

"The comprehensive and advanced Chemistry and Physics curriculum and the opportunity to write a dissertation at Cambridge have helped me build up a strong foundation for my upcoming PhD study at MIT. It was also an amazing experience making friends with so many talented students from the UK and other parts of the world - truly eye-opening!"

Career Prospects for Chemistry Graduates in Different Sectors

Education Institutions Area
Universities (Assistant Project Officer; Research Assistant); Secondary School /College (Graduate Master, Laboratory Technician); HKU Space (Executive Assistant)

Industrial Sector
Retail field (Management Trainee); Cosmetic field (Marketing Assistant); Pharmaceutical (Medical Representative; Quality Control Chemist); Hospital (Radiochemist Assistant); Testing / Commercial Laboratories (Assistant Chemist; Associate Scientist; Chemist Trainee; Research Assistant)

Civil Service Sector
Immigration Department (Immigration Officer); Department of Health (Administrative Assistant); Civil Service Bureau (Executive Officer, Official Language Officer); Hong Kong Correctional Services (Officer); The Fire Services Department (Ambulance Officer)

Postgraduate Research Studies
Master of Philosophy (MPhil), Doctor of Philosophy (PhD)

Business Sector
Bank institutions (Management Trainee; Personal Financial Manager Trainee); Accounting Audit (Audit Accountant; Audit Associate); Insurance (Financial Planner Trainee)

香港大學理學院
FACULTY OF SCIENCE
THE UNIVERSITY OF HONG KONG

HKU Science

Department of Chemistry

The University of Hong Kong

www.chemistry.hku.hk (852) 2859 7919 chemmail@hku.hk

Our Vision

To be one of the world's best academic departments for undergraduate education and a centre for innovative and creative research in frontier science.

Our Mission

- To nurture and train students to develop independent thinking and creativity for innovation as well as acquiring academic rigour and professional skills in chemical science
- To provide mentorship for the development of young scientists to excel to become the next generation of leaders
- To engage in translational research contributing to the economic growth of the society
- To perform innovative, original cutting-edge research in basic and interdisciplinary chemical science
- To disseminate knowledge to the public and to raise public awareness on the important role that science plays in the sustainable development of the society

Highlights of The Department of Chemistry

- The Department of Chemistry is ranked No. 1 among all chemistry departments in Hong Kong in the recent (2020) as well as the previous three Research Assessment Exercises (RAEs) by the Research Grants Council (RGC) of Hong Kong. In the recent RAE, 99 % of our research submissions is rated as either world-leading (4*) or internationally excellent (3*).
- The Department has a long tradition of excellence in teaching and research. Research in the Department encompasses an array of areas and is focused in the following four areas: Synthetic Chemistry, Physical Chemistry and Computation, Chemical biology, and Material Science and Energy.
- We have been very successful in obtaining grants for large-scale research programmes including the recent Theme-based Research Scheme (TRS) 2022/23 from RGC with a funding of HK$43M; and the two innoHK grants from the Innovation and Technology Commission (ITC), HKSAR in 2019, with a total of over HK$800M. The projects are:
  - (TRS Programme) Towards Carbon Neutrality: Catalysing Water and Carbon Dioxide to Green Resource Carriers (HKU)
  - (Health@InnoHK Programme) The Laboratory for Synthetic Chemistry and Chemical Biology (HKU)
  - (AIR@InnoHK Programme) The Hong Kong Quantum AI Lab (HKU)
- In the aspect of sustainable development and environmental conservation, the Department of Chemistry has succeeded in obtaining a grant of HK$1.08 M from Environmental Research, Technology Demonstration and Conference Projects 2022/23 funding. The project is:
  - Environment and Conservation Fund - Towards Livable & Healthy City: Solar-Driven Exhaust Fume (NOx) Purification Engineering for Eco-Friendly Transportation and Electricity Generation in Hong Kong
- There have been many other major research programmes that the Department actively coordinates. Many of which have involved strategic collaborations with other institutions in Hong Kong and in the mainland. For example:
  - (Areas of Excellence, AoE Programmes) Institute of Molecular Functional Materials (with HKUST, CUHK, CityU, HKBU); Theory, Modeling, and Simulation of Emerging Electronics (with HKUST, CUHK, PolyU, McGill, UIUC); Chemical Biology Approach to Molecular Medicine.
  - (TRS Programme): Challenges in Organic Photo-Voltaics and Light Emitting Diodes – A Concerted Multi-Disciplinary and Multi-Institutional Effort (with HKUST, CityU, PolyU, HKBU)
  - State Key Laboratory of Synthetic Chemistry (with CUHK, Shanghai Institute of Organic Chemistry, CAS)
  - The HKU-CAS Joint Laboratory on New Materials (with Technical Institute of Physics and Chemistry, CAS)
  - The HKU-CAS Joint Laboratory on Chemical Synthesis (with CUHK, Shanghai Institute of Organic Chemistry, CAS)
- The Department has a strong team of world-class scientists who are committed to providing quality teaching and devoted to nurturing our new generation. The achievements of our staff have been recognized by numerous international, national and regional awards. Two faculty members in our Department, Prof. C M Che and Prof. V W W Yam, are Members of the Chinese Academy of Sciences and Foreign Associates of the US National Academy of Sciences. Many other faculty members have also received prestigious recognitions, e.g., Prof. H Z Sun has been awarded by the Royal Society of Chemistry's 2023 Dalton Horizon Prize, and Prof. X C Li has been honoured with Chinese Chemical Society's Contribution Award in Carbohydrate Chemistry. Our younger professors are also rising stars - four have been awarded with National Natural Science Foundation of China Excellent Young Scientist Awards.

Prof. Chi Ming CHE | Prof. David Lee PHILLIPS | Prof. Hongzhe SUN | Prof. Vivian Wing Wah YAM | Prof. Zhengxiao GUO

International & National Honours Awarded to Our Academic

- Foreign Associates of the US National Academy of Sciences (2)
- Members of the Chinese Academy of Sciences (2)
- Foreign Member of Academia Europaea
- Fellows of TWAS, The World Academy of Sciences (2)
- Fellow of the American Physical Society
- Royal Society of Chemistry Centenary Medals (2)
- Royal Society of Chemistry Ludwig Mond Award
- TWAS Prizes in Chemistry (2)
- State Natural Science Awards (1st Class, 2nd Class, 3rd Class)
- L'OREAL-UNESCO Awards for Women in Sciences – Laureate
- Chinese Young Women in Science Fellowship
- National Natural Science Foundation of China Excellent Young Scientist Award (4)
- Julia S. and Edward C. Lee Memorial Lectureship (Lee Lectureship) of the University of Chicago, USA (2)
- Seaborg Lectureship at the University of California, Berkeley, USA (2)
- Lavoisier Lectureship at the University of Paris, Diderot 7
- Novartis Chemistry Lectureship Award
- Davison Lectureship at Massachusetts Institute of Technology (MIT)
- CCS Huang Yao-Zeng Lifelong Achievement Award on Organometallic Chemistry (2016)
- The First Ryoji Noyori (2001 Nobel Laureate) ACES Award (2016)
- Japan Society of Coordination Chemistry International Award (2016)
- Asian and Oceanian Photochemistry Association (APA) Masuhara Lectureship Award (2016)
- CCS Huang Yao-Zeng Organometallic Chemistry Award (2018)
- Federation of Asian Chemical Societies (FACS) Foundation Lectureship Award (2019)
- Earl L. Muetterties Lectureship in Inorganic Chemistry, the University of California, Berkeley (2019)
- Rao Makineni Lectureship Award by American Peptide Society (2019)
- Luigi Sacconi Medal (2020)
- Porter Medal (2020)
- Chinese Association for Instrumental Analysis (CAIA) Award, Grand Prize (2021)
- American Chemical Society National Award – The 2022 Josef Michl ACS Award in Photochemistry
- Bailar Medalist and Lectureship (2022-23)
- Chinese Chemical Society's Contribution Award in Carbohydrate Chemistry (2023)
- Dalton Horizon Prize by Royal Society of Chemistry (2023)
- Tetrahedron Young Investigator Award for Bioorganic and Medicinal Chemistry (2024)

Features of Undergraduate & Postgraduate Chemistry Programmes

Undergraduate Studies (BSc Chemistry Major)

- Our undergraduate chemistry education is of rigorous standard
- Two options are available to students
  - Regular Chemistry Major Curriculum (96 credits)
  - Intensive Chemistry Major Curriculum (*RSC Accredited Chemistry Programme; 144 credits)

ROYAL SOCIETY OF CHEMISTRY | ACCREDITED DEGREE

** Our Intensive Chemistry Major curriculum has been accredited by the Royal Society of Chemistry (RSC), a world leading professional association for chemistry. The RSC accreditation of our programme is a strong recognition of the excellent standards and high quality education that the Department of Chemistry offers. We are the first university in Hong Kong to receive the RSC accreditation for a BSc Chemistry Programme.*

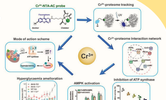
Postgraduate Studies (MPhil, PhD)

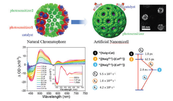
- Master of Philosophy (MPhil)
  - normative study period for full-time: 2 years
- Doctor of Philosophy (PhD)
  - normative study period for full-time: 3 years (for those who already hold a research Master's degree) or 4 years (for those with a good Bachelor's degree with honours and/or a taught Master's degree)

HKU Chemists' Outstanding Research

*A research team led by **Professor Hongzhe SUN from HKU Chemistry** has found that, chromium(III) (Cr(III)), a nutritional supplement, can enhance cells' ability to metabolise glucose by regulating ATP synthase activity.*

This process improves mitochondrial deformation caused by high glucose levels and significantly boosts glucose metabolism in type 2 diabetic mice. To uncover the protein targets of Cr(III) and elucidate the molecular mechanism, the team has developed a fluorescent probe for detecting transient metal-protein interactions, achieving a high spatiotemporal resolution tracking of the Cr(III) proteome in HepG2 cells. This led to the identification of Cr(III)-binding proteins within cells. The team then revealed that Cr(III) replaces magnesium ions (Mg^{2+}) in ATP synthase, reduces ATP synthase activity, and activates the downstream AMPK pathway, resulting in improved glucose metabolism. The findings provide a novel concept for hypoglycaemic research. This study addresses how Cr(III) improves hyperglycaemic stress at the molecular level for the first time. With the identification of multiple Cr(III)-binding proteins, this study also opens a new horizon for further investigation of the pharmacological role of Cr(III) in other diseases other than anti-diabetes, such as anti-neurodegenerative diseases and anti-aging new horizons. The research result was published in Nature Communications. (Apr 2023)

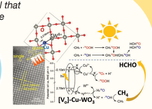


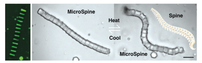


*Research teams led by **Professor David Lee PHILLIPS from HKU Chemistry** and collaborators from Jiangsu University, the City University of Hong Kong and the Shanghai Institute of Organic Chemistry have developed a remarkable and environmentally friendly system that can effectively harness light energy for the photocatalytic process. This artificial system is highly-stable and recyclable, and it does not rely on precious metals, making it more economically viable and sustainable. The research findings were published in the top scientific journal Nature Catalysis. (Jun 2023)*

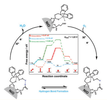
*In a concerted effort with **Professor Zhengxiao GUO from HKU Chemistry** and collaborators from the University College London and the Department of Chemical Engineering, Tsinghua University, a highly active and selective catalytic material that can efficiently convert methane, a potent greenhouse gas, into formaldehyde, an essential chemical in a waste-free manner, has been developed.*

This innovative material, derived from tungsten trioxide (WO3 catalyst), features a dual active site comprising copper and tungsten atomic species that work in tandem to ensure an effective and selective conversion process. The conversion process can achieve nearly 100% selectivity under visible light, which avoids unwanted byproducts and increase efficiency, making it an eco-friendly alternative to current production methods. The findings were published in the prestigious journal Nature Communications. (May 2023)

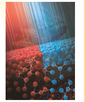




*The research team led by **Dr Yufeng WANG from the HKU Chemistry** has developed a new method to create microscale superstructures, called MicroSpine, that possess both soft and hard materials which mimic the spine structure and can act as microactuators with shape-transforming properties. The work done in this project could lead to the creation of intelligent microrobots capable of performing sophisticated microscale tasks, such as drug delivery, localised sensing and other applications. This breakthrough work was published in the top scientific journal Science Advances. (Jul 2023)*



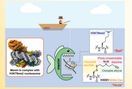
*A research group led by **Dr Edmund C M TSE from HKU Chemistry** achieved an important breakthrough toward dismantling the technological barrier of fuel cells. Specifically, the research group has developed a promising electrochemical cocatalyst that overcomes the kinetic hindrances of oxygen reduction reaction (ORR). The work done in this project is expected to be widely applicable to other green resourcification operations and clean energy catalytic processes. The study was published on ACS Catalysis. (Jun 2023)*



Prof. X D Li (right) and the collaborators

*A research team led by **Professor Xiang David LI from HKU Chemistry** and collaborators from HKU School of Biological Sciences and HKU School of Biomedical Sciences recently made a key breakthrough in understanding how genetic information encoded in our DNA is "read" and why errors in "reading" such information can often lead to developmental defects or cancers.*

The pioneering work by Prof Li and co-workers have advanced our understanding of the fundamental biological processes of gene regulation. These findings also open new opportunities for developing novel therapeutic agents to treat human diseases caused by abnormal levels of H3K79 methylation. The research findings were published in the top scientific journal Science. (Feb 2023)



HKU BSc Chemistry Curriculum can help students to

- Take up various positions, e.g. as a researcher, in industrial quality control, in environmental assessment, in teaching, patent law, in business, and in medicine and health care, etc;
- Lay a solid foundation for other related science subjects, e.g. biology, food and nutritional sciences, physics, biochemistry, ecology, environmental science, earth sciences, sport sciences, etc;
- Develop an analytical mind, logical thinking, organizational skills;
- Understand the science involved in other areas of inquiries, intersecting with economics, political and health issues; and
- Apply scientific knowledge and skills in real life situations.

Chemistry Prizes / Scholarships to Outstanding Students in Chemistry

We offer a number of scholarships/prizes to outstanding students in chemistry. The awardees are selected and nominated by members of the teaching faculty based on students' grades and academic merit.

- Cheung King Pak Memorial Scholarship
- Dick Arthur Memorial Prize in Chemistry
- Dorothy Collins Memorial Scholarships
- Douglas Payne Prizes in Chemistry
- G.T. Byrne Memorial Prize in Chemistry
- Mak Kai Hung Memorial Scholarships
- Norman Chui Scholarship
- Rayson Huang Scholarships
- Vacoas II Trust Scholarships

Minimum Entry Requirement to Major in Chemistry or Intensive Major in Chemistry

Level 3 or above in HKDSE Chemistry or equivalent or a pass in CHEM1041 Foundations of Chemistry

Regular Major in Chemistry (96 credits)

Offered to students admitted to Year 1 in 2024-2025

The information given below may be subject to change.

1. Introductory level courses (48 credits)

Disciplinary Core Courses:	SCNC1111	Scientific method and reasoning
Science Foundation Courses (12 credits)	SCNC1112	Fundamentals of modern science
Disciplinary Core Courses (36 credits)	CHEM1042	General chemistry I
	CHEM1043	General chemistry II
	CHEM2241	Analytical chemistry I
	CHEM2341	Inorganic chemistry I
	CHEM2441	Organic chemistry I
	CHEM2541	Introductory physical chemistry

2. Advanced level courses (42 credits)

Disciplinary Core Courses (30 credits)	CHEM3241	Analytical chemistry II: chemical instrumentation
	CHEM3341	Inorganic chemistry II
	CHEM3441	Organic chemistry II
	CHEM3443	Organic chemistry laboratory
	CHEM3541	Physical chemistry: introduction to quantum chemistry
Disciplinary Electives (12 credits)	CHEM4142	Symmetry, group theory and applications
At least **12** credits of any level 4 Chemistry (CHEM4XXX) courses shown in List A.	CHEM4144	Advanced materials
	CHEM4145	Medicinal chemistry
	CHEM4147	Supramolecular chemistry
List A (This list is subject to change. Please check the online syllabus on the science faculty website from time to time):	CHEM4148	Frontiers in modern chemical science
	CHEM4241	Modern chemical instrumentation and applications
	CHEM4242	Analytical chemistry
	CHEM4341	Advanced inorganic chemistry
	CHEM4342	Organometallic chemistry
	CHEM4441	Advanced organic chemistry
	CHEM4443	Integrated organic synthesis
	CHEM4444	Chemical biology
	CHEM4542	Computational chemistry
	CHEM4543	Advanced physical chemistry

3. Capstone requirement (6 credits)

At least **6 credits** selected from the following courses:

CHEM3999	Directed studies in chemistry
CHEM4910	Chemistry literacy and research
CHEM4911	Capstone experience for chemistry undergraduates: HKUtopia
CHEM4966	Chemistry internship
CHEM4999	Chemistry project (12)

Intensive Major in Chemistry (144 credits) (also named "RSC Accredited Chemistry Programme")

Offered to students admitted to Year 1 in 2024-2025

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Scan this QR code for the details of the intensive chemistry major curriculum