NUS
National University of Singapore

College of Humanities and Sciences

Bachelor of Science (Honours) in Chemistry

Department of Chemistry
Faculty of Science
College of Humanities and Sciences

NUS Chemistry

You might have heard: Chemistry is the central science. The interactions of atoms and molecules that make up all matter – merging with biology on one end (such as biochemical processes in organisms) and physics on the other (the chemical-physical changes all around us).

At NUS Chemistry, we do more than synthesise chemicals in the lab. We study and understand matter on the molecular level, synthesising complex knowledge from different domains to make these matters better. In the process, we uncover new materials for modern devices, produce insightful analysis to protect our environment, and even synthesise new drugs for better cancer treatment.

As the central science, chemistry is relevant to every aspect of life. Under the **College of Humanities and Sciences (CHS)**, you get to integrate your chemistry knowledge across disciplines with greater flexibility - pick up a second major or minor from another scientific or humanities discipline of your interest. Engage in a research project and rounded out with CHS' distinctive Common Curriculum, you will graduate well-equipped to tackle challenges of the future.

Why NUS Chemistry?

Strong expertise

At **one of the highest-ranked Chemistry departments in the world**, you will learn firsthand from professors with a wide range of expertise. They are some of the **most influential researchers in their fields** – and committed to share their knowledge with you.

QS World University Rankings by Subject 2024: Chemistry
Clarivate Analytics' Highly Cited Researchers List 2023

Hands-on learning

Chemistry is an experimental science – and here, you will gain technical skills using the most advanced chemical technologies and instrumentation. You get to test samples in the **Chemical, Molecular and Materials Analysis Centre** and work on real-world projects with our industry partners during an internship.

Social impact

Our students and graduates engage in **translational research** that benefit society – including tackling environmental issues, synthesising novel drugs, and developing materials for nextgeneration semiconductors.

Career opportunities

NUS Chemistry graduates are known for their **analytical skills** and **ability to synthesise complex information** – essential traits for a wide range of careers in both public and private sectors. Besides becoming research scientists, process managers and QA/QC officers in the industry, many go on to pursue graduate studies or join the civil service.

Academic Programmes

Primary Major in Chemistry

Specialisation in
- Chemical Research
- Sustainable Chemistry

Second Major in Chemistry

Minor in
- Chemistry
- Analytical Chemistry
- Nanoscience
  (jointly offered with the Department of Physics)

Research Opportunities

Make chemistry happens in one of our world-leading laboratories – either by doing a **Final Year Project (FYP)** or participating in the **Undergraduate Research Opportunities Programme in Science (UROPS)**. If you complete both FYP and UROPS*, you can graduate as a **BSc (Hons) with Specialisation in Chemical Research**.

Our faculty members work in a wide range of research topics – from organic and inorganic synthesis to advanced materials, chemical biology, computational and AI in chemistry, catalysis and sustainable chemistry, etc. You may choose a project related to sustainability, as part of requirement for the **Specialisation in Sustainable Chemistry**.

* Along with other Chemistry Level 3 or 4 courses

"My science training cultivated critical analytical skills and deepened my commitment to sustainability. This strong foundation empowered me to lead global supply chain initiatives and drive meaningful climate action."

– **Teo Rui Yang**, Supply Chain Program Manager
Apple Inc. United Nations Conference of Parties (COP) 29
Singapore Climate Youth Delegate
BSc (Hons) in Chemistry (2021)

"My NUS Chemistry PhD equipped me with advanced problem-solving, research expertise, and interdisciplinary collaboration skills, enabling innovative product development and effective management in my current leadership role."

– **Dr Ryan Lin Wei An**, Director (Research & Innovation), YSQ International
BSc (Hons) in Applied Chemistry 2013, PhD in Chemistry 2021

Admission Requirements

Programme	Admission Requirements
Primary Major in Chemistry	A good H2 pass (or equivalent) in Chemistry
Primary Major in Chemistry with • Specialisation in Chemical Research • Specialisation in Sustainable Chemistry	
Second Major in Chemistry	
Minor in Chemistry	
Minor in Analytical Chemistry	
Minor in Nanoscience	A good H2 pass (or equivalent) in Chemistry or Physics

For applicants without H2 Chemistry, simply read the bridging course CM1417/ CM1417X Fundamentals of Chemistry.

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