EXCITING POSSIBILITIES, ENDLESS OPPORTUNITIES – CHEMISTRY AT MONASH

Our journey to become leaders in the global shift towards green and sustainable chemistry starts with us, which is why we’ve built Green Chemical Futures (GCF) hub right here on campus. GCF unifies teaching, research and industry in one location. We’ve created a vibrant home on campus where students can learn, network, collaborate and discover with their peers academics and industry professionals.

As a chemistry student, you’ll use the latest educational equipment and resources – including lecture spaces, sophisticated laboratories and research facilities, as well as interactive spaces specifically designed for engagement with other students, researchers and industry. All the while, you’ll be learning in a building that aims to minimise environmental impact by using sustainable materials, and supporting energy conservation through the molecular structure of the building itself.

It’s the heart of forward-thinking in chemical sciences, with each level inviting students and researchers to explore possibilities and stretch their minds, making learning with innovation in the same space.

Dr Chris Thompson
Senior Lecturer in Chemistry at Monash

Chris Thompson is an academic with a special focus on education. He’s recently been involved in developing innovative teaching and, in an unusual move, there’s a handful of these rare specialists in the Monash Faculty of Science. Chris’ research implements innovative ways to teach chemistry.

“I want to change the way we educate chemistry students – to help them become professional scientists who are trained to think independently; to ask clever questions and devise solutions. This is the kind of learning you’ll experience in chemistry at Monash.”

The lower levels of the building house innovative teaching and collaborative learning spaces, moving away from traditional lecture halls in favour of inviting spaces that encourage active learning and creative problem solving in smaller groups. State-of-the-art research laboratories and transitional facilities are located on the upper levels.

Monash Science students and academics have access to:
- Collaborative learning spaces
- Sophisticated laboratories and research facilities
- The latest equipment and resources
- A sectional-style learning space
- Wireless technology
- Industry engagement spaces
- Visual interconnection and interaction.

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Further information
monash.edu/chemistry
monash.edu/science/future
1800 MONASH (1800 666 274)

Monash University reserves the right to alter this information should the need arise. You should always check with the relevant faculty office when considering a course.
Monash University is at the forefront of chemistry innovation and research. As such, it is central to the country’s largest manufacturing sector that employs more than 60,000 people in highly skilled jobs. As a result, it is a logical step for Monash to join a vibrant, diverse range of research projects that underpin our approach to chemical education, allowing you to learn and engage with the beauty of chemistry in a curiosity-driven manner.

CHEMISTRY RESEARCH AND INNOVATION

Our focus is on student learning that is enhanced by our active research culture, industry engagement and community involvement.

Our academics are involved in a diverse range of research projects:

- Molecular design and synthesis
- Anti-cancer agents
- Medicinal chemistry
- Development of APIs
- Glasses and polymers
- Biopharmaceuticals
- Organic and bio-inorganic chemistry
- Biotechnology
- Green chemistry
- Chemical education

This means that as a student, whether undergraduate or graduate, you’ll benefit from exceptional teaching and learning, and stimulating learning environments that are underpinned by a research-led teaching approach.

Chemistry’s influence is at a level unseen by the human eye. At Monash, you’ll discover a range of computational, analytical and synthetic approaches that will help you gain a deeper understanding of the hidden world around us.

Chemistry is typically at the heart of scientific and technical innovation. At Monash, our researchers use their expertise to find solutions to a wide range of problems and pursue materials for the benefit of mankind. This research focuses on the use of chemical reduction, allowing you to learn and engage with the beauty of chemistry in a curiosity-driven manner.

We also collaborate on a number of projects with other Monash departments, schools and industry partners, including biochemistry, biological science, microbiology and earth sciences. This emphasizes chemistry’s place as the central science and will give you a wide platform to address a range of problems if you choose to undertake further study in chemistry.

STUDYING CHEMISTRY IN MONASH SCIENCE

Study chemistry and explore a wide range of options. Consider undertaking an honours year as part of your chemistry education and have the opportunity to be part of a research group studying a significant problem.

COURSES

You can study a chemistry major in the following courses:

- Bachelor of Science
- Bachelor of Science Advanced – Research (Honours)
- Bachelor of Science Advanced – Global Challenges (Honours)

A major in chemistry can also be taken as part of a double degree. For further details and information on these options please see our Science Undergraduate Course Guide or visit monash.edu/science/chemistry/undergraduate-studies

HONOURS STUDIES

Hons level study enables you to undertake a specialised research project with one of our world-leading research groups. You must complete a major in chemistry and four units at level 3.

GRADUATE STUDIES

All honours students can apply to undertake Master of Science and PhD studies. These degrees involve coursework options and a research project or thesis.

Career options with chemistry

- Research chemist in a government, industrial or university research group
- Environmental consultant
- Analytical scientist
- Pharmaceutical scientist
- Environmental scientist
- Biotechnologist
- Quality control
- Patent attorney
- Medical scientist
- Food scientist
- Industrial chemist
- Forensic scientist
- Geochimist

- Pharmacologists
- Food and nutritional
- Information technology
- Biologists
- Buildings and resources management
- Occupational health and safety
- Food technologists
- Risk management
- Food and brewing
- Hospital or medical
- Water quality and treatment
- Toxically

A degree in chemistry equips you with a range of relevant, transferrable skills, including logical thinking, critical analysis, numeracy, data handling and communication.

OUR CHEMISTRY UNITS

LEVEL ONE

- CHM101 Chemistry I
- CHM102 Chemistry II
- CHM103 Chemistry

LEVEL TWO

- CHM291 Inorganic and Organic Chemistry
- CHM292 Chemistry I
- CHM293 Analytical and Biological Chemistry
- CHM294 Environmental Chemistry
- CHM295 Water
- CHM296 Food Chemistry

LEVEL THREE

- CHM391 Advanced Physical Chemistry
- CHM392 Advanced Organic Chemistry
- CHM393 Advanced Inorganic Chemistry
- CHM394 Advanced Analytical Chemistry
- CHM395 Materials Chemistry
- CHM396 Medical Chemistry
- CHM397 Environmental Chemistry
- CHM398 Sustainable Chemistry
- CHM399 Chemistry Project

LEVEL FOUR – HONOURS

- CHM491 Advanced research project (70%) and coursework (35%)