Investigating the structure, properties and reactions of materials at the molecular level
Allowing scientists to make exciting new compounds
Making possible the monitoring of our air, soil and water
Improving the quality of our lives!

Chemistry and you...
A Chemistry degree is flexible. Students are not confined to any particular scheme. Elective subjects that suit your interests can easily be included in your program. Some students choose philosophy, others astronomy. It's your choice.
Throughout your studies you are given the opportunity to become familiar with a wide range of modern and sophisticated instrumentation.

You can complete First Year Chemistry even if you have never studied Chemistry before. Completing a degree in Chemistry can open up a whole new world to you, that may lead to a variety of interesting job prospects.
In the first year many students choose subjects that will give them a strong foundation needed for later specialised studies. It is also important to find subjects that appeal to your interests.

One option for a first program is:
- Biology
- Chemistry
- Mathematics
- Computing

In the later stages of a Chemistry major, students can choose to study the 'traditional' areas of Chemistry:
- Inorganic
- Organic
- Physical
- Analytical

or some interdisciplinary subjects:
- Environmental Chemistry
- Biological Chemistry
- Medicinal Chemistry

Research programs that you can be part of:
- Studying our atmosphere
  - Bushfire smoke
  - Greenhouse gases
  - Pollution studies
- Developing new compounds
  - Drug design and synthesis
  - Development of new anti-viral agents, anti-biotics and cardiovascular drugs
  - Synthesis of anti-tumour agents and drugs to combat schizophrenia, depression and dementia
- Finding the cause of eye cataract
  - Structural analysis of peptides and proteins
- Using polymers for every occasion
  - Corrosion protection
  - Catalysis
  - Analytical sensors
  - Waste treatment
  - Biotechnology

Graduate Profiles:
Melanie Clarke
- Graduated with a Bachelor of Science (Hons)/Bachelor of Arts in 2000.
- Now undertaking a PhD in Organic Chemistry at the University of Nottingham, UK.

"I always had an interest in why and how things work and have particularly enjoyed the why and how involved at the interface between chemistry and biology. I think some really exciting things will be happening there, especially as we learn better how to design molecules to create a desired macro-effect in a living system. I think the fact that chemistry can involve aspects of other sciences makes it very flexible and therefore interesting to people from a wide range of backgrounds."

Timothy Boyle
- Graduated with a Bachelor of Medicinal Chemistry in 2000.
- Worked as a technical consultant for a multinational manufacturing company.
- Now undertaking a PhD with the Institute of Biomolecular Sciences at UOW.

"As a PhD candidate, I perform research in drug design and also do some casual teaching. In my role as a technical consultant I was in charge of resolving technical issues involved with the products, manufacturing problems, poisons scheduling and complaints. I chose the Bachelor of Medicinal Chemistry at UOW as the course is unique to the University. In the future after finishing my PhD within three years, I plan to take up the international postdoctorate trail and then settle down in an academic job."
**Industrial/Analytical Chemistry**

Senior Research Chemist
Research & Development Chemist
Analytical Chemists/Process Chemists

Technical Consultants/Analytical Chemists
Senior Research Fellow

Technical Support Specialist
Research Scientist
Quality Assurance Officer
Industrial Chemist/Business Analyst
Research Scientist
Development Scientist
Product Specialist

**Medicinal Chemistry**

Medicinal Chemists

Researcher/Doctoral Student
Research Assistants

Pharmaceutical Sales Representative

**Other Careers**

Senior Examiner
Consultant, Research and Development, Legislative Requirements
Occupational Health and Safety Librarian
Sales

**Environmental Chemistry**

Environmental Chemists/
Pollution Chemists

EAST Laboratories, Port Kembla
Gutteridge Hoskins and Davey
Virbac
Coal and Allied, Singleton
Caltex Refinery
Environmental Geochemistry International
Dept of Mineral Resources
Dept of Environment & Heritage, Qld
Battelle Industries
EPA, Newcastle
Port Kembla Copper

**Polymer Chemistry**

Managing Director
Research Manager
Principal Scientist
Research Scientist
Research Manager
Research Associate
Research Assistants
Lecturers

HW Electroch, Singapore
Chemtronics, Perth
Rubber Research Institute, Jakarta
Honeywell International
BHP, Seattle, USA
Illawarra Area Health Service
Alzheimers disease research, Manly Hospital
Griffith University, Queensland

**Employment of graduates... some recent examples...**