In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.

CHEM11043 *Atoms, Molecules and Matter*

Term 1 - 2026

Profile information current as at 22/01/2025 08:46 pm

General Information

Overview

Atoms, Molecules and Matter will provide you with an understanding of the basic principles of chemistry and how they apply to daily life. This unit will present fundamental chemical principles that are central to all sciences, including healthcare, biology, environmental science and agriculture. This unit will provide the foundation for further study in chemistry, biochemistry and molecular sciences. You will learn about matter and atomic structure, chemical bonding and the forces and chemical interactions between molecules. You will be introduced to the chemistry of electrolytes, acids, bases and buffers and enabled to perform calculations relating concentrations to the pH of strong and weak acids, bases and buffers. Understanding the naming and classification of chemical compounds will allow you to communicate effectively and precisely with your colleagues in science and industry. Basic nuclear radiation safety will be presented. This unit has a compulsory residential school. The residential school will emphasise laboratory safety and introduce you to skills relating to the preparation of standard solutions and volumetric procedures, titrimetric and spectrophotometric analyses and scientific report writing.

Details

Career Level: *Undergraduate*
Unit Level: *Level 1*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Anti-requisite: CHEM11041
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2026

- Mixed Mode

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Information for Class and Assessment Overview has not been released yet.

This information will be available on Monday 12 January 2026

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from SUTE

Feedback
The residential school in this unit was very helpful in applying theoretical knowledge to real-world situations.

Recommendation
I recommend that the chemistry teaching team continue to uphold the residential school requirement as part of the unit's profile.

Feedback from SUTE

Feedback
Students appreciate all the teaching efforts for this unit and have learned a great deal. Their only constructive feedback is to reduce the number of students per class for the residential schools.

Recommendation
I recommend that the unit coordinator and the chemistry teaching team continue to collaborate with the Head of Course to develop an effective strategy for managing residential school arrangements in the event of increased enrolment. Potential strategies include reducing the maximum capacity of the chemistry laboratory classes from 60 students per class to 50 students per class, providing additional laboratory assistants for larger classes, and scheduling more residential school classes.

Feedback from Direct Email

Feedback
Some students struggled with certain aspects of chemistry in high school, but the unit coordinator's explanations and the provided resources have been incredibly helpful.

Recommendation
I recommend that the unit coordinator and the chemistry teaching team continue to refresh teaching methods, learning materials, and support students to meet all students' needs and enrich their learning experience in this unit.

Feedback from SUTE

Feedback
Recorded lectures and tutorial videos need to be updated and refreshed on the Moodle site.

Recommendation
I recommend that the unit coordinator and the chemistry teaching team collaborate with the Head of Course to develop a strategic approach for updating the lecture and tutorial videos as soon as possible.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 12 January 2026

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.
This information will be available on Monday 12 January 2026

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 16 February 2026

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.