

In Progress

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



CHEM12080 *Organic and Bio-Organic Chemistry*

Term 1 - 2027

Profile information current as at 07/09/2026 09:46 pm

All details in this unit profile for CHEM12080 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

In this unit, you will build a solid understanding of how organic molecules behave and how their chemistry underpins biological systems. You will learn how reaction mechanisms explain changes in functional groups, how to recognise key patterns in heterocyclic and pericyclic reactions, and how these ideas help you predict reaction outcomes. You will also work with common spectroscopic techniques so you can interpret nuclear magnetic resonance (NMR), infrared (IR), mass spectrometry (MS), and ultraviolet (UV) data to identify unknown compounds. As the unit progresses, you will explore the structures and properties of important biomolecules such as carbohydrates, lipids, nucleic acids and proteins. You will examine how their chemical features link to their roles in living systems and basic metabolic processes. In the laboratory, you will put your knowledge into practice through organic synthesis, purification and analysis, along with introductory bio-organic or biochemical assays. These activities will help you develop practical skills, understand safe laboratory practice and learn how to record and communicate scientific results clearly.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisites: CHEM11043 Atoms, Molecules and Matter and CHEM11044 Chemical Reactions.

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 - 2027

- 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 11 January 2027

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
- Academic Progression Policy and Procedure
- Student Refund and Credit Balance Policy and Procedure
- 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 UC REFLECTION

Feedback

Students were highly engaged and motivated during the residential school, reporting an enjoyable and valuable practical learning experience.

Recommendation

The teaching team will continue to apply an inquiry-oriented learning approach during residential schools to maintain high levels of student engagement and motivation.

Feedback from TEACHING TEAM REFLECTION

Feedback

Some students appeared initially disoriented and overwhelmed at the start of the residential school due to the new inquiry-oriented learning approach.

Recommendation

The teaching team will continue to emphasize the importance of completing the self-review task prior to the residential school, as this preparation supports students in understanding and adjusting to the inquiry-oriented learning approach.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 11 January 2027

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 11 January 2027

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 15 February 2027

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.
This unit profile has not yet been finalised.