

Chemistry ATAR

Year 11 Course Code	AECHE
Year 12 Course Code	ATCHE
Highly Recommended	Year 11: Year 10: A or B grade throughout the year. 75% in both semester Science examinations 90% attendance in Year 10 OLNA Category 3 Recommendation by Head of Learning Area
	Year 12: A or B grade in Year 11 Chemistry
Cost	\$70.00 (cost is approximate – subject to change)

Year 11 and 12 Overview

The Chemistry ATAR course equips students with the knowledge, understanding and opportunity to investigate properties and reactions of materials. Theories and models are used to describe, explain and make predictions about chemical systems, structures and properties. Students recognise hazards and make informed, balanced decisions about chemical use and sustainable resource management.

Investigations and laboratory activities develop an appreciation of the need for precision, critical analysis and informed decision making. This course prepares students to be responsible and efficient users of specialised chemical products and processes at home or in the workplace. It also enables students to relate chemistry to other sciences, including biology, geology, medicine, molecular biology and agriculture, and prepares them for further study in the sciences.

Year 11 Course Structure

Unit 1 – Chemical fundamentals: structure, properties and reactions

In this unit, students relate matter and energy in chemical reactions as they consider the breaking and reforming of bonds as new substances are produced.

Unit 2 – Molecular interactions and reactions

Students develop their understanding of the physical and chemical properties of materials, including gases, water and aqueous solutions, acids and bases.

Year 12 Course Structure

Unit 3 - Equilibrium, acids and bases, and redox reactions

Through the investigation of appropriate contexts, students explore the ways in which models and theories related to acid-base and redox reactions, and their applications, have developed over time and through interactions with social, economic and ethical considerations.

Unit 4 - Organic chemistry and chemical synthesis

This unit focuses on organic chemistry and the processes of chemical synthesis by which useful substances are produced for the benefit of society. Students investigate the relationship between the structure, properties and chemical reactions of different organic functional groups and the vast diversity of organic compounds.