



Course Information

Sciences

Chemistry | CHE



ATCHE

Unit 3 Equilibrium and redox reactions

By the end of this unit, students will understand equilibrium systems and predict the effects of temperature, concentration, and pressure changes. They will differentiate between acid strength and concentration, relating this to chemical equilibrium principles. Students will model redox reactions, galvanic, and electrolytic cells through electron transfer, and explore how models and theories have evolved to interact with social and economic contexts. Using inquiry skills, students will investigate the properties of acids, bases, redox reactions, and electrochemical cells, including volumetric analysis. Additionally, students will evaluate claims about equilibrium systems and explain chemical phenomena using qualitative and quantitative representations.

Unit 4 Organic chemistry and chemical synthesis

By the end of this unit, students will understand how functional groups and molecular structures of organic compounds relate to their properties. Students will learn how knowledge of chemical systems is applied in synthesis processes and explore the development of models and theories, as well as how chemical knowledge interacts with social and economic contexts. Additionally, students will evaluate claims about organic synthesis and chemical design with empirical evidence and communicate, predict, and explain chemical phenomena using qualitative and quantitative representations.



Prerequisites

Minimum **C grade** of
ATAR Units 1 and 2 or
equivalent standard



Year of Study

Year 12



Type of Assessment

20% Science Inquiry
10% Extended Response
20% Test
50% Examination



Costs

Total Cost \$65