
VCE UNITS INFORMATION

VCE CHEMISTRY UNITS 3 AND 4 CONTINUED

OUTCOMES

Unit 3

- Students should be able to compare fuels quantitatively with reference to combustion products and energy outputs, apply knowledge of the electrochemical series to design, construct and test galvanic cells, and evaluate energy resources based on energy efficiency, renewability and environmental impact
- Students should be able to apply rate and equilibrium principles to predict how the rate and extent of reactions can be optimised, and explain how electrolysis is involved in the productions of chemicals and in the recharging of batteries

Unit 4

- Students should be able to compare the general structures and reactions of the major organic families of compounds, deduce structures of organic compounds using instrumental analysis data, and design reactions pathways for the synthesis of organic molecules
- Students should be able to distinguish between the chemical structures of key food molecules, analyse the chemical reactions involved in the metabolism of the major components of food including the role of enzymes, and calculate the energy content of food using calorimetry
- Students should be able to design and undertake a practical investigation related to energy and/or food, and present methodologies, findings and conclusions in a scientific poster

ASSESSMENT

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. A variety of assessment tasks are used to provide a range of opportunities for students to demonstrate the key knowledge and key skills in the outcomes.

Practical work is a central component of learning and assessment. As a guide, between 3½ and 5 hours of class time is devoted to student practical work and investigations for each Area of Study in Units 3 and 4.

- Unit 3 School Assessed Coursework comprises 16% of the study score
- Unit 4 School Assessed Coursework comprises 24% of the study score
- End of year examination comprises 60% of the study score

Please Note: Refer to the Subject Costs Schedule for details of costs relevant to this program.