



Aims

This course is designed for students preparing to enter university to study Biomedical/Health Sciences. The aims of the course are to familiarise students with fundamental concepts of chemistry. The scope of this course is to introduce students to the basic concepts in atomic structure, the periodic table, chemical bonding, stoichiometry, redox reactions, enthalpy, organic chemistry, rates of reaction, chemical equilibrium, and acids and bases.

Learning outcomes

On completing this course, students will be able to:

- > Demonstrate a basic level of knowledge of the atomic theory and structure of matter
- > Demonstrate an understanding and application of the periodic table
- > Demonstrate an understanding of molecular structure and the physical and chemical properties of chemical bonding
- > Exhibit an understanding and ability to apply the principles of stoichiometry
- > Describe redox reactions in terms of electron transfer
- > Demonstrate an understanding of the principle of enthalpy and ability to identify processes that use energy and those that release energy
- > Display a working knowledge in organic chemistry, and as a consequence an ability to describe the structural differences between saturated, unsaturated, and aromatic hydrocarbons
- > Demonstrate research skills including locating, critically evaluating, organising, synthesising and communicating scientific information

Required materials

Course booklet supplied by
The University of Adelaide College

Course content

The following topics will be covered:

- > Concepts of atomic theory, the periodic table and chemical bonding
- > Stoichiometry, rates of reaction, chemical equilibrium and enthalpy
- > Redox reactions and electrochemistry
- > Acids and bases
- > Organic chemistry

Further details of the course content will be advised in the first week of classes

Contact hours

4 hours per week



Assessment

Indicative weightings for each assessment item are outlined below

Assessment	Weighting
Final 3 hour exam	60%
Three semester tests	30%
Participation	10%