



Course

Engineering Chemistry 1A

CHEM1811 | 6 Units of Credit

Overview

This course builds on an introductory knowledge of chemistry (equivalent to two years of high school chemistry, such as Year 11 and 12 chemistry) to explore the engineering aspects of chemistry. The course builds from the quantum mechanical structure of atoms and leads to an understanding of the periodic trends in the properties of the elements. This knowledge is applied to understanding chemical bonding and intermolecular forces which together are responsible for determining the properties of materials. General principles of chemical equilibrium are developed and applied to chemical reactions involving acids and bases. The practical aspects of the flow of material and energy within a process are extended into applications of the laws of thermodynamics to chemical processes and ultimately linked to chemical equilibrium. The course concludes with an overview of chemical reactions involving electron transfer, including their applications in biology, corrosion and energy storage for portable electronic devices.

Note: Assumed knowledge equivalent to year 12 chemistry or CHEM1001.

Faculty

Faculty of Science

School

School of Chemistry

Study Level

Undergraduate

Offering Terms

Term 1

Campus

Kensington

Delivery Mode

Partially online

Indicative contact hours

8

Timetable

[Visit timetable website for details](#)

Conditions for Enrolment

Exclusion: CHEM1011 and CHEM1031 and CHEM1051 and CEIC1001 and MATS1101

Course Outline

To access course outline, please visit:

[CHEM1811 Course Outline](#)

Fees

Commonwealth Supported Students \$1170

Domestic Students \$5760

International Students \$5760

DISCLAIMER

Please note that the University reserves the right to vary student fees in line with relevant legislation. This fee information is provided as a guide and more specific information about fees, including fee policy, can be found on the [fee website](#).

For advice about fees for courses with a fee displayed as "Not Applicable", including some Work Experience and UNSW Canberra at ADFA courses, please contact the relevant Faculty.

Where a Commonwealth Supported Students fee is displayed, it does not guarantee such places are available.

Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

[Pre-2019 Handbook Editions](#)

© UNSW Sydney (CRICOS Provider No.: 00098G), 2019. The information contained in this Handbook is indicative only. While every effort is made to keep this information up-to-date, the University reserves the right to discontinue or vary arrangements, programs and courses at any time without notice and at its discretion. While the University will try to avoid or minimise any inconvenience, changes may also be made to programs, courses and staff after enrolment. The University may also set limits on the number of students in a course.

Authorised by Deputy Vice-Chancellor (Academic)

CRICOS Provider Code 00098G

ABN: 57 195 873 179