CHEM 1008 INTRODUCTORY CHEMISTRY

Credit Points 10

Legacy Code 300808

Coordinator Richard Thomas (https://directory.westernsydney.edu.au/search/name/Richard Thomas/)

Description The chemical sciences underpin our understanding in the environmental, forensic, health, medical, biological and physical sciences. This unit familiarises students with the fundamental principles of chemistry and how chemistry shapes the world around us. Students will be introduced to the concepts of atomic structure, the reactivity of substances, the Periodic Table, stoichiometry, and will learn about the structure and reactivity of substances and mixtures in different chemical environments, and exposed to different forms of electromagnetic radiation. Students will explore real world problems and apply the fundamental principles of chemistry to better understand how we may shape our own future.

School Science

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 1 subject

Equivalent Subjects CHEM 1007 - Introductory Chemistry CHEM 1009 - Introductory Chemistry (WSTC)

Incompatible Subjects CHEM 1003 - Essential Chemistry 1

Restrictions NOTE: Only External students can enrol in a composite offering for this subject.

Assumed Knowledge

General Mathematics or equivalent.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify key principles and concepts of general, inorganic, physical and electro chemistry.
2. Apply key principles and concepts of chemistry to identify, explain and examine the relationships between micro and macro chemical processes and observations in a number of scientific disciplines.
3. Conduct experiments and examine results to illustrate selected key principles and concepts of chemistry.
4. Safely handle and dispose chemical substances in lab environments.
5. Collaborate effectively in groups on experiments.
6. Communicate chemistry and chemical experiments to a range of audiences using scientific language, chemistry symbols, three - dimensional structures of compounds and conventions of general chemical nomenclature correctly.

Subject Content

1. Acquisition of Knowledge: demonstrating a knowledge of, and applying the principles and concepts of chemistry
2. Applications of knowledge: recognising that chemistry plays an essential role in society and underpins many industrial, technological and medical advances. Understanding and being able to articulate aspects of the place and importance of chemistry in the local and global community
3. Communication: presenting information, articulating arguments and conclusions, in a variety of modes, to diverse audiences, and for a range of purposes
4. Skills and applications of skills: synthesising and evaluating information from a range of sources, including traditional and emerging information technologies and methods; conducting experiments to illustrate key principles and concepts; incorporating qualitative and quantitative evidence into scientifically defensible arguments
5. Personal and Professional attributes: recognising the creative endeavour involved in acquiring knowledge, and the testable and contestable nature of the principles of chemistry; Demonstrating a capacity for self-directed learning; working collaboratively in teams.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Workshops. quiz, numerical problem solving, case studies	3 hr/w 6 weeks	20	N	Individual
Practicals. Log work book, numerical problem solving	3 hr/w 3 weeks	20	Y	Individual
Lecture and tutorial Participation	2h lecture 13 weeks. 3hr tutorial 6 weeks	10	N	Individual
Final Examination	2h	50	N	Both (Individual & Group)

Alternate

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/ Group Task
Lecture participation	1 quiz per week 13 weeks	10	N	Individual

Prescribed Texts

- Chemistry3 Burrows,Holmans,Parsons,Pilling,Price 2013, 2nd edition OUP

Teaching Periods

Autumn

Campbelltown

Day

Subject Contact Richard Thomas (https://directory.westernsydney.edu.au/search/name/Richard Thomas/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CHEM1008_22-AUT_CA_D#subjects)

Hawkesbury

Day

Subject Contact Richard Thomas (https://directory.westernsydney.edu.au/search/name/Richard Thomas/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CHEM1008_22-AUT_HW_D#subjects)

Composite

Subject Contact Richard Thomas (https://directory.westernsydney.edu.au/search/name/Richard Thomas/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CHEM1008_22-AUT_HW_C#subjects)

Parramatta - Victoria Rd

Day

Subject Contact Richard Thomas (https://directory.westernsydney.edu.au/search/name/Richard Thomas/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CHEM1008_22-AUT_PS_D#subjects)