

MACQUARIE UNIVERSITY

2008 CHEMISTRY BRIDGING COURSE PROGRAM

Bridging Course Coordinator: Mrs Maree Nelson
Presenter: Dr Alec Charlson, F7B 119, Ph: 9850 8302
Venue: Building E7B T2, Macquarie University
Date: Monday 18 February – Friday 22 February with the omission of Tuesday 19, Orientation Day for all students enrolling in the Division of Environmental and Life Sciences.

Recommended Reference Texts

Chemistry, The Central Science by Brown, LeMay, Bursten, Langford, Sagatys and Duffy. (the text for CBMS101 2008)

Conquering Chemistry by Roland Smith 2nd Ed. (multiple copies available in Macquarie University library)

Basic Concepts of Chemistry by Leo J. Malone 6th Ed. (multiple copies available in Macquarie University library)

PROGRAM

MONDAY 18 FEBRUARY	WEDNESDAY 20 FEBRUARY	THURSDAY 21 FEBRUARY	FRIDAY 22 FEBRUARY
Introduction and course structure	Brief history of atomic structure	Chemical equations from word equations to symbol equations	Moles and molar masses
The scientific method	Modern understanding of atomic structure	Balancing stoichiometric equations	Mole composition of a compound; empirical and molecular formulae
Matter, chemical and physical changes	Atomic mass, atomic number	Writing molecular, complete ionic and net ionic equations; spectator ions	Stoichiometry and limiting reactants
Elements and compounds, both ionic and covalent	Isotopes; calculating atomic mass from isotopic masses	Solubility and solubility rules	Molarity and solution stoichiometry; titrations
The periodic table	Octet and formation of ions; formation of ionic and covalent bonds – all related back to periodic table	Types of reactions: combustion, acid-base (including acid + carbonate), precipitation and redox (including metal + acid)	
Writing formulae of compounds			

Structure of each day:

9-10.30 lecture, E7B T2
 10.30-10.50 morning tea
 10.50-12.30 lecture building E7B T2
 12.30-1.30 lunch – provided by student
 1.30-3.30 tutorial, E7B 263, 264

Course notes will be provided for students enrolled in the course at no extra charge. Morning tea will be provided each day but students should bring their own lunch or purchase it either at the student union, SAM, or at nearby Macquarie Shopping Centre. Writing paper, pens and a calculator will be required by students. It is an intensive course and time between days i.e. the evenings, should be left free for private study of material covered each day in lectures and tutorials to maximise the benefits of the course.

For general information regarding enrolment contact:

Maria Hyland Phone: 02 9850 8275 E-mail: maria.hyland@mq.edu.au	Maree J. Nelson Bridging Course Coordinator Phone: 02 9850 8295 E-mail: maree.nelson@mq.edu.au Website: http://www.cbms.mq.edu.au/ugrad/bridging.html	Payment of registration fee is to be made on the form provided, to The Cashiers Office, Ground Floor Lincoln Building, Macquarie University.
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