610-101 Chemistry 1

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus. Lectures, practicals, tutorials/workshops, independent learning tasks, computer-aided learning.
Time Commitment:	Contact Hours: 36 one-hour lectures (three per week), 18 hours of practical activities (six 3-hour practicals), 12 one-hour tutorial/workshop sessions, 6 hours of computer aided learning, 8 hours of independent learning tasks. Total Time Commitment: 120 hours
Prerequisites:	VCE Units 3/4 Chemistry and VCE Units 3/4 Mathematics (any).
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.
Coordinator:	Dr B Abrahams
Subject Overview:	The subject provides an introduction to stoichiometry; gases; energy and thermochemistry; chemical equilibrium; acid-base chemistry; properties of solutions, aspects of main group chemistry: structure and bonding in elements and compounds of groups 14-18; solutions and pH equilibria; physical properties of solution. intermolecular forces and extended solid state structures; structure and bonding of alkanes, alkenes and alkynes; benzene and its derivatives; functional groups; and spectroscopy and determination of structure.
Assessment:	A 30-minute written test held mid-semester (5%); ongoing assessment of practical work (16%); completion of independent learning tasks (4%); a 3-hour written examination in the examination period (75%). Satisfactory completion of practical work is necessary to pass the subject.
Prescribed Texts:	Chemical Principles (S. S. Zumdahl), 5th edn, Houghton Mifflin, 2005. Organic Chemistry (J. McMurry), 6th edn, Thomson Brooks/Cole, 2004.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # Bachelor of Arts # Bachelor of Commerce # Bachelor of Environments # Bachelor of Music You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	This subject encompasses particular generic skills so that on completion of this subject students should have developed skills relating to: # the organization of work schedules which permit appropriate preparation time for tutorials, practical classes and examinations; # the use of electronic forms of communication;

	# the utilisation of computer-aided learning activities to enhance understanding; # the performance of basic manipulations with laboratory equipment; # the recording of observations, the analysis of information and the interpretation of data within a laboratory setting; # accessing information from the library employing both electronic and traditional means. # working collaboratively with other students; # the use of conceptual models; # problem solving; and # critical thinking.
Notes:	Students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course will receive science credit for the completion of this subject. A laboratory coat and safety glasses are required for laboratory activities.
Related Course(s):	Bachelor of Engineering (Chemical Engineering) Bachelor of Engineering (Chemical and Biomolecular Engineering) Bachelor of Engineering (Environmental) and Bachelor of Arts Bachelor of Engineering (Environmental) and Bachelor of Commerce Bachelor of Engineering (Environmental) and Bachelor of Laws Bachelor of Optometry Bachelor of Veterinary Science(PV)