610-150 Chemistry for Biomedicine

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. Lectures, practicals, tutorials/workshops, computer-aided learning.
Time Commitment:	Contact Hours: 36 lectures, 12 three-hour lab/workshops, 12 one-hour tutorial/workshop sessions, 6 hours of computer-aided learning. Total Time Commitment: 120 hours
Prerequisites:	VCE Chemistry or equivalent
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Dr B Abrahams
Subject Overview:	An introduction to biomedical chemistry including the nature of (1) orbitals and bonding, (2) chirality and its relevance to biology and medicine, (3) organic molecules and functional groups, (4) their reactivity, (5) the structure and reactivity of bio-polymers, (6) the bio-geo-chemical cycles of selected elements, (7) energy acquisition, storage and transport and (8) the bio-metals
Assessment:	A 30 minute mid-semester written class test (5%); ongoing assessment of practical laboratory and workshop activity (20 %) and a 3-hour written examination in the examination period (75%). Satisfactory completion of practical laboratory and workshop activity is necessary to pass the subject
Prescribed Texts:	S. Zumdahl, Chemical Principles 5th Ed. Houghton Mifflin, 2005. J. McMurry, Organic Chemistry, 6th Ed. Thomson Brooks/Cole, 2004.
Breadth Options:	This subject is not available as a breadth subject.
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 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 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. • critical thinking.
Notes:	This subject is only available to students enrolled in the Bachelor of Biomedicine. Required equipment: laboratory coat and safety glasses