

## 610-150 Chemistry for Biomedicine

<b>Credit Points:</b>	12.50
<b>Level:</b>	1 (Undergraduate)
<b>Dates &amp; Locations:</b>	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Lectures, practicals, tutorials/workshops, computer-aided learning.
<b>Time Commitment:</b>	Contact Hours: 36 one-hour lectures, 12 three-hour lab/workshops, 12 one-hour tutorial/workshop sessions, 6 hours of computer-aided learning. Total Time Commitment: 120 hours total time commitment.
<b>Prerequisites:</b>	VCE Units 3/4 Chemistry or equivalent.
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	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.
<b>Coordinator:</b>	Dr Spencer Williams
<b>Subject Overview:</b>	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
<b>Objectives:</b>	.
<b>Assessment:</b>	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
<b>Prescribed Texts:</b>	J. McMurry, Organic Chemistry, 7th Ed. Thomson Brooks/Cole, 2008.
<b>Recommended Texts:</b>	S. Zumdahl, <i>Chemical Principles</i> 5th Ed. Houghton Mifflin, 2005.
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	This subject encompasses particular generic skills so that on completion students should have developed skills relating to: <ul style="list-style-type: none"> <li>• the organization of work schedules which permit appropriate preparation time for tutorials, practical classes and examinations.</li> <li>• the use of electronic forms of communication.</li> <li>• the utilisation of computer-aided learning activities to enhance understanding.</li> <li>• the performance of basic manipulations with laboratory equipment.</li> <li>• the recording of observations, the analysis of information and the interpretation data within a laboratory setting.</li> <li>• accessing information from the library employing both electronic and traditional means.</li> <li>• working collaboratively with other students.</li> <li>• the use of conceptual models.</li> <li>• problem solving.</li> </ul>

	• critical thinking.
<b>Notes:</b>	This subject is only available to students enrolled in the Bachelor of Biomedicine. Required equipment: laboratory coat and safety glasse. It is recommended that students have access to a molecular model kit.