610-321 Organic Chemistry IIIB

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures and 12 tutorials Total Time Commitment: 120 hours
Prerequisites:	Chemistry 610-220 or 610-221. Concurrent enrolment in 610-325 is strongly recommended.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Credit cannot be gained for this subject and 610-320.
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. 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:	Associate Professor M A S Rizzacasa
Subject Overview:	Upon completion of 610-321, students should comprehend the main types of chemical transformations involved in the synthesis of organic compounds; the range of agents available to effect these transformations; the different types of stereochemical complexity of organic compounds; factors which influence stereochemical outcome; the procedures for determination of the structures of organic compounds by spectroscopic and chemical techniques; the theoretical basis of organic chemical reactions; and the concept of reaction mechanisms and the methods used to delineate these mechanisms. Students should also appreciate the importance of rational, critical and independent thought in chemical science and in the understanding of organic chemistry. The subject covers pericyclic reactions; the chemistry of alkenes; organometallic reactions, enolates, aldol and related reactions, and the Wittig reaction; free-radical chemistry; reductions and rearrangements with emphasis on chemo-, regio-, and stereo-selectivity; applications of nuclear magnetic resonance and mass spectrometry to the determination of structure; concerted and stepwise processes; detection and identification of intermediates and products; and applications of infrared, nuclear magnetic resonance and mass spectrometry.
Assessment:	Written assignments not exceeding six pages due during the semester (10%); a 3-hour written examination in the examination period (90%).
Prescribed Texts:	None
Breadth Options:	This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008. This subject or an equivalent will be available as breadth in the future. Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available. 2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences

	Bachelor of Science