610-320 Organic Chemistry IIIA

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus. Lectures, tutorials and practical work
Time Commitment:	Contact Hours: 24 lectures (three per week for eight weeks), eight tutorials, 32 hours practical work Total Time Commitment: 120 hours total time commitment
Prerequisites:	Either # 610-220 (prior to 2009) Or both of # 610-221 (prior to 2009) # 610-225 (prior to 2009)
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Credit cannot be gained for this subject and *Organic Chemistry IIIB* or *Organic Chemistry Practical III*.
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:	Prof Mark Rizzacasa
Subject Overview:	Upon completion of *Organic Chemistry IIIA*, 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; and the procedures for determination of the structures of organic compounds by spectroscopic and chemical techniques. Students should have also developed time and resource management skills; skills to synthesise a range of organic molecules; knowledge of the application and interpretation of a range of spectroscopic and physical techniques; and experience in reporting the results of an experimental study. 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; reductions and rearrangements with emphasis on chemo-, regio-, and stereo-selectivity; and applications of nuclear magnetic resonance and mass spectrometry to the determination of structure. The practical course will consist of a number of experiments involving the synthesis and/or chemical and/or instrumental investigations of important classes of organic compounds.
Objectives:	.
Assessment:	Ongoing assessment of practical work in the form of short reports due during the semester (33%); written assignments not exceeding six pages due during the semester (10%); a 3-hour

	written examination in the examination period (57%). Satisfactory completion of both theory and practical work is necessary to pass the subject.
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)** 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
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 Biomedical Science Graduate Diploma in Biotechnology
Related Majors/Minors/ Specialisations:	Chemistry