ABPL20042 Residential Construction and Structures

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: Lectures 2 hours 2 x weekly; Tutorial 1 hour 1 x weekly Total Time Commitment: 120 hours.
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
ENVS10003 Constructing Environments	Not offered 2013	12.50

AND *EITHER*

Subject	Study Period Commencement:	Credit Points:
MAST10012 Introduction to Mathematics	Semester 1	12.50

OR

VCE Maths Methods 3/4

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
Contact:	Email: **j.georgiou@unimelb.edu.au (mailto:j.georgiou@unimelb.edu.au)**
Subject Overview:	A major portion of the general public has aspirations for home ownership and this continues to drive the residential market in Australia. This subject provides an introduction to residential and multi-unit residential low rise construction systems with an emphasis on materials selection, usage and construction methods. The various structural systems and design concepts currently in use are incorporated and interlinked into all the topics, which include an introduction to footing, floor, wall and roof framing systems and their compliance with Australian Standard Codes. The structural considerations include the analysis of loads, load paths, lateral stability, timber column and beam design for strength and stiffness, and general beam behaviour and statics analysis. The issue of materials technology, its application and performance are incorporated throughout the lecture series leading to an awareness of building pathology and maintenance. The subject also provides an introduction to residential services.
Objectives:	On completion of this subject students should be able to: # link basic structural design concepts with current residential construction practices; # read and interpret residential construction drawings; # communicate construction solutions by means of sketches and drawings;

	# propose and evaluate alternative construction systems.
Assessment:	Assignments including tutorial exercises, sketch detailing, construction site observation reports, model making and class presentations equivalent to not more than 3000 words (40%). A three hour examination (60%). Regardless of assignment results, a minimum mark of 40% has to be achieved in the exam to pass this subject.
Prescribed Texts:	Coursework notes available.
Recommended Texts:	R. Barry (1999), *The Construction of Buildings*, Vol. 1, Ed. 7, Wiley-Blackwell. A. Hanaor (1998), *Principles of Structures*, Wiley-Blackwell. G. Wilkie (2003), *Building Your Own Home*, New Holland.
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/2013/B-ARTS)** # **Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2013/B-BMED)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2013/B-COM)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2013/B-MUS)** # **Bachelor of Science (https://handbook.unimelb.edu.au/view/2013/B-SCI)** # **Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2013/B-ENG)** 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:	# Analytical skills. # Problem solving skills. # Drawing reading skills. # Research skills.
Related Majors/Minors/ Specialisations:	Architecture major Civil (Engineering) Systems major Construction major Environmental Engineering Systems major Restrictions for Breadth Options within the Bachelor of Environments - relating to specific majors
Related Breadth Track(s):	Introduction to Construction Property Construction Construction Technologies and Principles