

## 702-137 Construction Technology 1A

<b>Credit Points:</b>	12.500
<b>Level:</b>	Undergraduate
<b>Dates &amp; Locations:</b>	This subject is not offered in 2008.
<b>Time Commitment:</b>	Total Time Commitment: Not available
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt;         &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>
<b>Coordinator:</b>	Ms Clare Newton
<b>Subject Overview:</b>	<p>The subject is divided into two sections: Structures and Construction Technology in which there is a focus on materials and timber framing. The subject aims to: progressively introduce structural principles and modelling relevant to architectural design and building construction; introduce a framework for understanding the properties and environment impact of fundamental building materials and how they are used within the construction industry; introduce case studies of light timber framing and concrete footings to help students develop an intuitive understanding of structure and materials.</p> <p>On completion of the subject students should be able to:</p> <ul style="list-style-type: none"> <li># Understand issues of strength, stiffness and stability of structures including modes of action of structural systems, forces, stress and strain, laws of statics and an introduction to trusses.</li> <li># Group materials according to their properties and understand how these properties influence the use of materials within the construction industry and their environmental impact. Properties to be considered include strength, elasticity, opacity and conductivity.</li> <li># Understand the importance of standards and codes using timber and concrete as case studies to develop simple frames and footings.</li> <li># Apply a range of methods to research, visualise, select and test construction materials and basic structures and demonstrate these through design and construction of simple objects.</li> </ul>
<b>Assessment:</b>	Assignments (eg. tutorial exercises, site reports, workshop exercises, class presentations, construction drawings) equivalent to not more than 3000 words (60%) and an examination of two hours (40%).
<b>Prescribed Texts:</b>	Structure and Architecture (2nd Edition) (AJ MacDonald), Oxford, Architectural Press (2001) Interactive Structures, Visualizing Structural Behavior (Shahin Vassigh), Wiley, 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>	On completion of the subject students should have developed the following skills and capabilities: <ul style="list-style-type: none"><li># Understanding of basic structural engineering principles relevant to architectural design and building construction.</li><li># Performing simple calculations in the determination of reactions and of stress and strain.</li><li># Communication of construction solutions by means of sketches and drawings.</li><li># Production of written reports of observations.</li></ul>
<b>Related Course(s):</b>	Bachelor of Architectural Studies Bachelor of Planning & Design Bachelor of Planning and Design (Property and Construction)