

ENVS10003 Constructing Environments

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	This subject is not offered in 2013. On campus
Time Commitment:	Contact Hours: 48 hours (3 hours x tutorial and 1 hour x lecture each week). Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><p>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.</p> <p>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</p></p>
Contact:	c.newton@unimelb.edu.au (mailto:c.newton@unimelb.edu.au)
Subject Overview:	What are the structural principles and material properties that underpin the form and fabric of the natural and built environments? Through analysis, observation, experimentation, testing and review, students will explore examples and applications from both natural and artificial structures. Through exercises, site visits and model making, students will engage with Structures (e.g. force and support systems), Materials (e.g. metals, masonry, ceramics, polymers and timber) and Construction (e.g. case studies). Physical and environmental properties of materials are presented together with their construction techniques, and life cycle issues including embodied energy.
Objectives:	<p>On completion of this subject students should be able to:</p> <ul style="list-style-type: none"> # Understand how structural principles and material properties underpin the form and fabric of natural and built environments # Explore physical measures that quantify length, area, volume, mass, weight and scale and their application to representations of objects (e.g. – in drawings and models) # Gain a basic appreciation of the range of structural systems in terms of structure, materials, construction and function # Identify basic properties and behaviour of materials, manufacturing processes and the environmental implications of their selection and use within the constructed environment. # Develop an appreciation of construction processes and detailing.
Assessment:	One 2 hour examination, end of semester (40%) Assignments totalling 3000 words (tutorial exercises, model construction and testing, site reports, workshop exercises and class presentations), due during semester (60%)
Prescribed Texts:	Shahin Vassigh, Interactive Structures: Visualizing Structural Behavior 2.0 (Interactive software DVD-ROM), Wiley, 2010 or 2008 AND.Francis D.K. Ching, 2011, Building Construction Illustrated, 4th Edition, John Wiley & Sons, E-Book OR.Francis D.K. Ching, 2008, Building Construction Illustrated, 4th Edition, John Wiley & Sons, Paperback.
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2013/B-ARTS)

	<p># Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2013/B-COM)</p> <p># Bachelor of Music (https://handbook.unimelb.edu.au/view/2013/B-MUS)</p> <p>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.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>At the completion of this subject students should have the following skills:</p> <ul style="list-style-type: none"> # Be able to apply knowledge of basic science and engineering fundamentals # Be able to undertake problem identification, formulation and solution # Learn from experiments through reflection and analysis # Communicate effectively with their peers and the community at large # Developed a capacity for independent critical thought, rational inquiry and self-directed learning.
Links to further information:	http://www.benvs.unimelb.edu.au/
Related Course(s):	Bachelor of Environments
Related Majors/Minors/Specialisations:	<p>Architecture major Civil (Engineering) Systems major Construction major Environmental Engineering Systems major Environmental Geographies, Politics and Cultures major Environmental Science major Environments Discipline subjects Geomatics (Geomatic Engineering) major Landscape Architecture major Landscape Management major Property major Urban Design and Planning major</p>
Related Breadth Track(s):	<p>Introduction to Construction Construction Technologies and Principles Civil and Environmental Engineering</p>