

ENVS10003 Constructing Environments

Credit Points:	12.5
Level:	1 (Undergraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 48 hours (six x 1 hour lectures, one x 1.5 hour workshop, ten x 3 hour tutorials, plus weekly E-Learning modules of 45mins – 1 hour each). Total Time Commitment: 170 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><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> </p>
Coordinator:	Assoc Prof Clare Newton
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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.
Learning Outcomes:	<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:	Either Francis D.K. Ching, 2014, Building Construction Illustrated, 5th Edition, John Wiley & Sons, Paperback (preferred) 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"> # <u>Bachelor of Arts</u> (https://handbook.unimelb.edu.au/view/2015/B-ARTS) # <u>Bachelor of Commerce</u> (https://handbook.unimelb.edu.au/view/2015/B-COM) # <u>Bachelor of Music</u> (https://handbook.unimelb.edu.au/view/2015/B-MUS) <p>You should visit <u>learn more about breadth subjects</u> (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/
Notes:	Safety boots, high visibility vests, hard hats and safety glasses are required for construction site visits in this subject (to be provided by the student). Rigging type safety gloves (to be provided by the student) may also be required depending on specific site requirements.
Related Course(s):	Bachelor of Environments
Related Majors/Minors/Specialisations:	<p>Architecture major Civil (Engineering) Systems major Environmental Engineering Systems major Environmental Geographies, Politics and Cultures major Environments Discipline subjects Geomatics (Geomatic Engineering) major Property major</p>
Related Breadth Track(s):	<p>Construction Technologies and Principles Civil and Environmental Engineering Introduction to Construction</p>