

421-103 Engineering Statics

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Summer Term, - Taught on campus.
Time Commitment:	Contact Hours: Thirty-six hours of lectures and twelve hours of tutorials. Total Time Commitment: Not available
Prerequisites:	Subject assumes knowledge of VCE Mathematical Methods units 3 and 4.
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:	Graham Hutchinson
Subject Overview:	Topics covered include force systems; resolution of forces including moments of a force, couples, moments of distributed forces; equilibrium, support systems; shear force, bending moments in beams; forces in pin-connected trusses; equilibrium concepts via virtual work; stress, strain, elasticity in one and two dimensions; stress transformation; stress and deflection caused by bending and torsion; indeterminate systems; the stresses in a fluid at rest; hydrostatic distribution of pressure; Archimedes' principle; projected areas; hydrostatic stability and metacentric height.
Assessment:	A 3-hour written examination (70%) and two assignments of not more than 2000 words each (30%).
Prescribed Texts:	Engineering Statics, Vol 1 - Statics (J L Meriam and L G Kraige), 4th edition, Wiley, 1992
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # ability to apply knowledge of basic science and engineering fundamentals # ability to undertake problem identification, formulation and solution # ability to plan work and use time effectively