ENGR90021 Engineering Communication

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2014.
Time Commitment:	Contact Hours: 1 x one hour lecture per week + 1 x 2 hour workshop per week Total Time Commitment: 200 hours
Prerequisites:	# Entry into the MC-ENG Master of Engineering OR the 761BU/EM Master of Engineering Management OR # 200 points of undergraduate study
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Credit points will not be given for the following subjects when taking this subject

Subject	Study Period Commencement:	Credit Points:
ENGR10004 Engineering Systems Design 1	Semester 1, Semester 2	12.50
ENGR10003 Engineering Systems Design 2	Summer Term, Semester 2	12.50

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:	**dcshal@unimelb.edu.au (mailto:dcshal@unimelb.edu.au)**
Subject Overview:	**AIMS** This subject introduces the nature of engineering work, at the heart of which is communication and problem solving using sustainability principles. **INDICATIVE CONTENT** Specific topics include: # Skills required for engineering practice # The engineering recruitment process # Engineering problem solving # Systems thinking and design # Teamwork # Meetings and group dynamics # Oral and written communication # Use of library services and information services # Sharing information and knowledge management

	# Creation of alternative solutions # Evaluation and decision making processes using sustainability
Learning Outcomes:	**INTENDED LEARNING OUTCOMES (ILO)** On completion of this subject the student is expected to: 1 Describe the role of engineers in an engineering organisation 2 Work effectively in a small team, including evaluating peer and team performance 3 Use a systems approach to simplify a complex problem 4 Identify information needs related to a problem and seek answers to these needs 5 Document, store and transmit information for the benefit of the team 6 Present information orally, in writing and in drawings 7 Create and research alternative solutions to a problem 8 Evaluate solutions against sustainability criteria
Assessment:	Employment skills assignment (250 words), due week 4 (5%) Team charter (in teams of 4, 500 words), due week 5 (5%) Problem statement (300 words) due week 5, Problem statement (Oral, in teams of 4) due week 7 (5%) Research briefing paper (2000 words), due week 9 (20%) Final report (in teams of 4, 2,000 words) due week 11 (20%) Stakeholder Survey (500 words) due week 12 (10%) Defence (Oral, in teams of 4), week 12 (10%) Weekly journal (1500 words, 15%) and personal learning journal (500 words, 5%), due week 12 Intended Learning Outcomes (ILO) 1 is addressed by the employment skills assignment, the weekly blog and the reflective journal. ILO 2 is addressed by the team charter activity. ILO's 3 to 5 and 7 are addressed by the problem definition, the research report and the final report and brochure. ILO 6 is addressed by the problem definition, the reports and the oral defence. ILO 8 is addressed by the reports.
Prescribed Texts:	D Dowling, A Carew & R Hadgraft, Engineering Your Future, Wiley, 2nd edn 2012
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:	# Ability to communicate effectively, with the engineering team and with the community at large # Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member # Ability to undertake problem identification, formulation and solution # Ability to utilise a systems approach to complex problems and to design and operational performance # Understanding of social, cultural, global and environmental responsibilities and the need to employ principles of sustainable development # Ability to manage information and documentation # Capacity for lifelong learning and professional development
Notes:	**LEARNING AND TEACHING METHODS** The subject will be delivered through a combination of lectures and interactive workshops. **INDICATIVE KEY LEARNING RESOURCES** Students will have access to lecture notes and lecture slides. **CAREERS / INDUSTRY LINKS** Speakers from industry are regular contributors to this subject.
Related Course(s):	Master of Engineering Management Master of Engineering Management Master of Engineering Project Management Master of Engineering Project Management
Related Majors/Minors/ Specialisations:	Master of Engineering (Biochemical) Master of Engineering (Biomedical) Master of Engineering (Chemical with Business)

	Master of Engineering (Chemical) Master of Engineering (Civil with Business) Master of Engineering (Civil) Master of Engineering (Electrical with Business) Master of Engineering (Electrical) Master of Engineering (Environmental) Master of Engineering (Geomatics) Master of Engineering (Mechanical with Business) Master of Engineering (Mechanical) Master of Engineering (Mechatronics) Master of Engineering (Software with Business) Master of Engineering (Software) Master of Engineering (Structural)