

ENGR90021 Engineering Practice and Communication

Credit Points:	12.5									
Level:	9 (Graduate/Postgraduate)									
Dates & Locations:	2016, 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: 1 x 1 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 761EM Master of Engineering Management OR 532PM Master of Project 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 <table border="1" data-bbox="387 952 1485 1182"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENGR10004 Engineering Systems Design 1</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>ENGR10003 Engineering Systems Design 2</td> <td>Summer Term, Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	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
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ENGR10003 Engineering Systems Design 2	Summer Term, Semester 2	12.50								
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>									
Coordinator:	Mr Philip Mackinnon, Prof David Shallcross									
Contact:	Semester 1: Prof David Shallcross dcshal@unimelb.edu.au (mailto:dcshal@unimelb.edu.au) Semester 2: Dr Philip James Mackinnon philipm@unimelb.edu.au (mailto:philipm@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 set criteria. INDICATIVE CONTENT Specific topics include:									

	<ul style="list-style-type: none"> # Skills required for engineering practice # The engineering recruitment process # Engineering problem identification, formulation and solving # Teamwork # Meetings and group dynamics # Oral and written communication # Use of library services and information services # Sharing information and knowledge management # Ethics and academic honesty # Stakeholder and client engagement.
Learning Outcomes:	<p>INTENDED LEARNING OUTCOMES (ILO)</p> <p>On completion of this subject the student is expected to:</p> <ol style="list-style-type: none"> 1 Describe the role of engineers in an engineering organisation 2 Work effectively in a small team, including evaluating peer and team performance 3 Identify and define a challenge in engineering 4 Research solutions to an engineering problem 5 Evaluate solutions against agreed criteria 6 Present information orally and in writing.
Assessment:	<p>One assignment, requiring 5-7 hours of work, (addresses Intended Learning Outcomes 1 and 4), due Week 4 (10%) One team-based oral presentation and written summary with four team members, requiring 13-15 hours of work, (addresses ILOs 2-6), due Week 5 (10%) Research briefing paper, requiring 20-30 hours of work, (addresses ILOs 4, 5 and 6), due Week 8 (20%) See hurdle requirement below Up to 4 entries in a journal, requiring 25-30 hours of work, (addressing ILOs 1, 3, 4 and 5), due Weeks 2-12 (20%) One assignment of one page, requiring 2-3 hours of work, (addressing ILOs 2 and 6), due Week 12 (5%) One oral presentation with four team members, requiring 2-3 hours of work, (addressing ILO 6), due Week 12 (5%) One written report of approximately 1000 words, requiring 13-15 hours of work, (addresses ILOs 1-4), due Week 12 (10%) See hurdle requirement below One assignment with four team members of approximately 2000 words, each member committing to 25-30 hours of work, (addresses ILOs 1-6), due in the first week of the examination period (20%) Hurdle Requirement: The combined mark for the research briefing paper and 1000 word assignment due in Week 12 must be 50% or greater in order to pass the subject as a whole.</p>
Prescribed Texts:	None
Recommended Texts:	Dowling D., Carew, A & Hadgraft, R., 2012, Engineering Your Future, Wiley, 2nd edn
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 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:	<p>LEARNING AND TEACHING METHODS</p> <p>The subject will be delivered through a combination of lectures and interactive workshops.</p> <p>INDICATIVE KEY LEARNING RESOURCES</p>

	<p>Students will have access to lecture notes and lecture slides.</p> <p>CAREERS / INDUSTRY LINKS</p> <p>Speakers from industry are regular contributors to this subject.</p>
Related Course(s):	<p>Master of Architectural Engineering</p> <p>Master of Engineering Project Management</p>
Related Majors/Minors/ Specialisations:	<p>Master of Engineering (Biochemical)</p> <p>Master of Engineering (Biomedical with Business)</p> <p>Master of Engineering (Biomedical)</p> <p>Master of Engineering (Chemical with Business)</p> <p>Master of Engineering (Chemical)</p> <p>Master of Engineering (Civil with Business)</p> <p>Master of Engineering (Civil)</p> <p>Master of Engineering (Electrical with Business)</p> <p>Master of Engineering (Electrical)</p> <p>Master of Engineering (Environmental)</p> <p>Master of Engineering (Mechanical with Business)</p> <p>Master of Engineering (Mechanical)</p> <p>Master of Engineering (Mechatronics)</p> <p>Master of Engineering (Software with Business)</p> <p>Master of Engineering (Software)</p> <p>Master of Engineering (Spatial)</p> <p>Master of Engineering (Structural)</p>