

# CVEN90022 IE Research Project 1

<b>Credit Points:</b>	12.50												
<b>Level:</b>	9 (Graduate/Postgraduate)												
<b>Dates &amp; Locations:</b>	2013, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.												
<b>Time Commitment:</b>	Contact Hours: 22 (10 hours in workshops, and 12 hours progress meetings/feedback by academic supervisors) Total Time Commitment: 120 hours												
<b>Prerequisites:</b>	This is a Capstone subject and may only be taken in the final three semesters of study												
<b>Corequisites:</b>	None												
<b>Recommended Background Knowledge:</b>	None												
<b>Non Allowed Subjects:</b>	When undertaking this subject students cannot gain credit for the following subjects: <table border="1" data-bbox="387 824 1485 1086"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CVEN90047 IE Research Project 2</td> <td>Not offered 2013</td> <td>25</td> </tr> <tr> <td>CVEN90020 Research Topic</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>CVEN90056 IE Research Project 3</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	CVEN90047 IE Research Project 2	Not offered 2013	25	CVEN90020 Research Topic	Not offered 2013	12.50	CVEN90056 IE Research Project 3	Semester 2	12.50
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CVEN90056 IE Research Project 3	Semester 2	12.50											
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt; <p>&lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p> </p>												
<b>Coordinator:</b>	Assoc Prof Graham A. Moore												
<b>Contact:</b>	Semester 1 contact: Dr Graham Moore <b><a href="mailto:grahamam@unimelb.edu.au">grahamam@unimelb.edu.au</a> (mailto:grahamam@unimelb.edu.au)</b> Semester 2 contact: Dr Biju George <b><a href="mailto:biju@unimelb.edu.au">biju@unimelb.edu.au</a> (mailto:biju@unimelb.edu.au)</b>												
<b>Subject Overview:</b>	This subject provides the capstone experience for students in Infrastructure Engineering. Students will combine their expertise in interdisciplinary groups or as individuals to address real-world problems, typically in contact with industry Project topics will be advertised well in advance of commencement of the subject so that students can make an informed choice of topic and enrol early. Students must register their topic, group and supervisor before the subject commences The first five-weeks address research training and comprise weekly structured two-hour lectures with group homework on topics such as project development, literature review, methodology												

	<p>development, presentations and scientific writing. Students will practise this output through their project topics with supervisors providing feedback on the results</p> <p>Students then continue the project within their groups and with regular progress meetings with their supervisor for the remainder of the year. The project culminates with students presenting their project and findings on a poster at a student expo and also in written form in the style of a conference paper</p> <p>Students with an average score of H1 in the previous 100 points of study and an interest in a PhD have the opportunity to undertake an individual research project</p> <p>Note: CVEN90022 IE Research Project 1 is of year-long duration, students may commence in either Semester 1 or Semester 2 and continue in the consecutive semester. Students wishing to undertake the project component through an Industry internship during the university breaks must have completed the Research Training component (first five weeks of first semester), ie. students undertaking an internship during the Winter break must commence CVEN90022 in Semester 1, similarly students undertaking an internship during the Summer break must commence CVEN90022 in Semester 2</p>
<b>Objectives:</b>	<p>On completion of this subject, students should be able to:</p> <ul style="list-style-type: none"> <li># Search, analyse and document engineering science and other literature in order to determine the need for further research in a chosen area</li> <li># Synthesize an hypothesis to be tested</li> <li># Devise a methodology of investigation to test the hypothesis</li> <li># Collect and analyse a range of data (qualitative and/or quantitative) and/or undertake computer modelling and simulation to implement the methodology</li> <li># Write project reports which follow good engineering science practice</li> <li># Present a poster of the findings of an investigation</li> </ul>
<b>Assessment:</b>	<p>By mid-project each group must submit an 8 page 'project proposal' report, outlining the context, literature review, methodology and method for their project. Passing is a hurdle requirement (20%) The project culminates in a poster and oral presentation (poster 10%, presentation 10%) and a 15 page final group report in the style of a conference paper (50%). The group marks of each component will be broken down into individual marks by a peer assessment. Individual progress report, minutes of supervisor meetings, and reflections on the research process presented in 12 individual journal entries over the project period (10%) Further Hurdle Requirements: The following must be satisfied in order to pass the subject: Students must register for a project topic prior to day 1 of the first semester of study Weekly attendance at a minimum of 70% of the Departmental research seminars (or equivalent) in the project period, and completion of a critique form for each seminar will be evidence of attendance which will be marked Pass/Fail A Pass mark for the mid-project report</p>
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<ul style="list-style-type: none"> <li># Discernment of knowledge development and research directions within the engineering discipline</li> <li># Ability to undertake problem identification, formulation and solution</li> <li># Ability to communicate effectively, with the engineering team and with the community at large</li> <li># Ability to manage information and documentation</li> <li># Capacity for creativity and innovation</li> <li># Understanding of professional and ethical responsibilities, and commitment to them</li> </ul>
<b>Notes:</b>	This subject is co-taught with CVEN90056 and CVEN90047
<b>Related Course(s):</b>	<p>Bachelor of Engineering (Environmental) and Bachelor of Arts</p> <p>Bachelor of Engineering (Environmental) and Bachelor of Commerce</p> <p>Master of Engineering Management</p> <p>Master of Engineering Management</p> <p>Master of Engineering Project Management</p>

	Master of Engineering Project Management Master of Environmental Engineering Master of Environmental Engineering
<b>Related Majors/Minors/ Specialisations:</b>	Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Geomatics) Master of Engineering (Structural)