

CHEN90028 Industry Project

Credit Points:	25								
Level:	9 (Graduate/Postgraduate)								
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Summer Term, Parkville - Taught on campus. Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus. A self-learning engineering design project, conducted as a team, aided by lectures and consultation sessions.								
Time Commitment:	Contact Hours: An average of 2 hours of meetings with academic and industrial supervisors per week Total Time Commitment: Estimated 400 hours								
Prerequisites:	Approved students must have completed the following subjects and gained the appropriate credit points, prior to enrolling in this subject:								
	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CHEN30001 Reactor Engineering</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	CHEN30001 Reactor Engineering	Semester 1	12.50
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CHEN30001 Reactor Engineering	Semester 1	12.50							
	Prior to 2010, CHEN40003 Reactor Engineering								
	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CHEN30005 Heat and Mass Transport Processes</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	CHEN30005 Heat and Mass Transport Processes	Semester 1	12.50
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	AND ONE OF the following subjects:								
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	Prior to 2010 CHEN40006 Chemical Engineering Management or CHEN30013 Chemical Engineering Management								
Corequisites:	None								
Recommended Background Knowledge:	None								
Non Allowed Subjects:	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENGR90033 Industry Based Learning</td> <td>January, Semester 1, Semester 2</td> <td>25</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	ENGR90033 Industry Based Learning	January, Semester 1, Semester 2	25
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ENGR90033 Industry Based Learning	January, Semester 1, Semester 2	25							
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on								

	the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Prof Peter Scales
Contact:	Email: peterjs@unimelb.edu.au (mailto:peterjs@unimelb.edu.au)
Subject Overview:	<p>AIMS</p> <p>Candidates will undertake as individuals or as a member of a team a designated investigative project within a suitable industry partner that could involve critical analysis of a topic, experimental research and/or development, theoretical modelling, process simulation and/or the solution of an industrial problem. Rigorous planning and scheduling of the project, time management, written and verbal technical communication, interpretation of results and team work will be required. Working off campus may be also be required, depending on the project.</p> <p>INDICATIVE CONTENT</p> <p>The exact content covered in the subject will depend to some extent on the nature of the industry project. Topics covered will most probably include literature searches, site safety, risk assessment, engineering analysis, modelling and design and report writing.</p> <p>This subject has been integrated with the Skills Towards Employment Program (STEP) and contains activities that can assist in the completion of the Engineering Practice Hurdle (EPH).</p>
Learning Outcomes:	<p>INTENDED LEARNING OUTCOMES (ILOs)</p> <p>On completion of this subject the student is expected to:</p> <ol style="list-style-type: none"> 1 Plan and conduct an independent project within an industrial setting 2 Communicate their research plan orally to an audience of their peers 3 Present a detailed written report.
Assessment:	A written report of up to 35 pages, not including appendices, diagrams, tables, computations and computer output (50%). Time commitment of approximately 130-140 hours. Intended Learning Outcomes (ILOs) 2 and 3 will be assessed through the student's written report A 30 minute oral presentation supported either by powerpoint slides or a poster (25%). ILOs 2 and 3 will be assessed through the student's presentation. Students participating in the Endeavour program submit their poster and complete their oral presentation towards the end of semester and their written report is submitted during the exam period. Students not participating in the Endeavour program submit their written report during the exam period towards the end of semester and complete their oral presentation during the exam period An assessment of the quality of the student's research work, including a mid-semester oral update briefing (25%). ILO 1 will be assessed through the student's performance in research workspace.
Prescribed Texts:	None
Recommended Texts:	None
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 communicate effectively, not only with engineers but also with the community at large # In-depth technical competence in at least one engineering discipline # Ability to undertake problem identification, formulation and solution # Ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member Capacity for independent critical thought, rational inquiry and self-directed learning # Intellectual curiosity and creativity, including understanding of the philosophical and methodological bases of research activity # Profound respect for truth and intellectual integrity, and for the ethics of scholarship

Notes:	<p>LEARNING AND TEACHING METHODS</p> <p>Students will receive one-on-one instruction on how to complete an open-ended research project on some industrially-related topic in chemical engineering. They will undertake a project either individually or as part of a team of two students. Students will take responsibility for their time management setting priorities and establishing a program that will allow them to complete their project within the time allowed. They will also need to be aware of and follow all safety procedures and rules on site.</p> <p>INDICATIVE KEY LEARNING RESOURCES</p> <p>Students will be guided throughout their project by an engineer of the industry project sponsor as well as by an academic of the Department. These engineers will be their guides and mentors on the project. Students will also be provided with access to key relevant research papers. They will be expected to identify further material which they will be able to access through the University Library system.</p> <p>CAREERS / INDUSTRY LINKS</p> <p>The projects available in this subject are all industry relevant. They may require the student to travel to the industry partner site. Students will be challenged with real projects that are an importance to industry.</p>
Related Majors/Minors/ Specialisations:	<p>Master of Engineering (Biochemical) Master of Engineering (Chemical with Business) Master of Engineering (Chemical)</p>