

## 365AC Bachelor of Engineering (Chemical) and Bachelor of Laws

<b>Year and Campus:</b>	2011 - Parkville
<b>CRICOS Code:</b>	022253G
<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>Level:</b>	Undergraduate
<b>Duration &amp; Credit Points:</b>	600 credit points taken over 72 months full time. This course is available as full or part time.
<b>Coordinator:</b>	A/Professor Sandra Kentish
<b>Contact:</b>	Melbourne School of Engineering <a href="mailto:courseinfo@eng.unimelb.edu.au">courseinfo@eng.unimelb.edu.au</a> ( <a href="mailto:courseinfo@eng.unimelb.edu.au">mailto:courseinfo@eng.unimelb.edu.au</a> ) <a href="http://www.eng.unimelb.edu.au/">http://www.eng.unimelb.edu.au/</a> ( <a href="http://www.eng.unimelb.edu.au/">http://www.eng.unimelb.edu.au/</a> )
<b>Course Overview:</b>	<p><b>THIS COURSE ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008</b></p> <p>Chemical engineers invent, design and implement processes through which raw materials are converted into valuable products such as petrol, power and toothpaste. This specialisation promotes development of practical, laboratory-based skills, combined with expertise in computing and simulation. There is a strong focus on the sustainable development of chemical processes and products. Career opportunities in the field are extensive and encompass the petrochemical, mining, food, pharmaceutical or chemical industries.</p> <p>Students taking combined degree courses and who intend to overlap second- and later-year subjects, should consult with a course adviser to ensure all core engineering requirements are met. Students must ensure they complete 300 points of law subjects overall, including the core subjects listed below and at least 12.5 points of legal theory.</p> <p>Note: Chemical Engineering subjects: 411-202 Processing Engineering 1, 411-391 Bionanoengineering, 411-339 Process Engineering 2, 411-445 Process Engineering 3, 411-448 Biochemical/Environmental Engineering 2, 411-449 Materials and Recycling are not taken by students enrolled in BE combined with Arts, Commerce and Law.</p>
<b>Objectives:</b>	<p>The course objectives are that graduates should have acquired:</p> <ul style="list-style-type: none"> <li># A broad knowledge of science and engineering in several disciplines including a sound fundamental understanding of scientific and engineering principles and methods;</li> <li># An in-depth knowledge and skills within specified areas of engineering and science;</li> <li># The appropriate analytical, problem-solving and design skills;</li> <li># Capacity to apply practical skills towards the development of mathematical and computer-based solutions of problems;A</li> <li># Learning skills and a knowledge base to enable them to readily accommodate future changes in technology;</li> <li># Verbal and written communication skills that enable them to communicate effectively in the context of defining and solving problems;</li> <li># An understanding of the basic principles underlying the management of physical, human and financial resources;</li> <li># Skills, personal attributes and depth of knowledge which equip them for positions of leadership in basic and applied research, engineering and management of technology-intensive enterprises;</li> <li># An appreciation of the roles and responsibilities of engineers and scientists in society; and</li> <li># The educational and professional standards of the professional institutions with which the faculties' courses are accredited.</li> </ul>
<b>Course Structure &amp; Available Subjects:</b>	The combined degree of Bachelor of Engineering (Chemical)/Bachelor of Laws requires a total of 600 points over six years. Students are required to complete 300 points of Engineering subjects and 300 points of Law subjects.
<b>Majors/Minors/ Specialisations</b>	None

<b>Subject Options:</b>	<p><b>THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008.</b></p> <p>Note: Students who commenced 4th year in 2009 and have not completed (or who have failed) the fourth year subjects required in the Bachelor of Engineering degree please see a course adviser.</p> <p><b>Fifth Year</b></p> <p>Subjects listed below <b>MUST</b> be taken in this approved order, regardless of semester availability.</p> <p><b>Semester 1</b></p> <table border="1" data-bbox="391 465 1485 786"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CHEN90018 Particle Mechanics and Processing</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CHEN90019 Advanced Heat &amp; Mass Transport Processes</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CHEN90012 Process Equipment Design</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>LAWS30011 Corporations Law</td> <td>July, Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p><b>Semester 2</b></p> <table border="1" data-bbox="391 813 1485 1104"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>LAWS30009 Legal Ethics</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>CHEN90022 Chemical Engineering Design Project</td> <td>Semester 2</td> <td>25</td> </tr> <tr> <td>CHEN90026 Chemical Engineering Minor Research Project</td> <td>Summer Term, Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p><b>Sixth Year</b></p> <p>Law subjects as required to ensure 300 points of law subjects completed</p>	Subject	Study Period Commencement:	Credit Points:	CHEN90018 Particle Mechanics and Processing	Semester 1	12.50	CHEN90019 Advanced Heat & Mass Transport Processes	Semester 1	12.50	CHEN90012 Process Equipment Design	Semester 1	12.50	LAWS30011 Corporations Law	July, Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	LAWS30009 Legal Ethics	Semester 2	12.50	CHEN90022 Chemical Engineering Design Project	Semester 2	25	CHEN90026 Chemical Engineering Minor Research Project	Summer Term, Semester 1, Semester 2	12.50
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<b>Entry Requirements:</b>	There will be no further entries into combined degrees.																											
<b>Core Participation Requirements:</b>	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: <a href="http://www.services.unimelb.edu.au/disability">http://www.services.unimelb.edu.au/disability</a>																											
<b>Further Study:</b>	On completion of a Bachelor of Engineering, students may choose to apply for candidature in a Masters by Research or PhD degree. They may also apply to undertake a one year Advanced Masters by Coursework degree.																											
<b>Graduate Attributes:</b>	The Bachelor of Engineering is a professional degree. Graduate can obtain professional recognition by joining Engineers Australia who has accredited these programs. The Bachelor of Engineering also delivers on the University graduate attribute - <a href="http://www.unimelb.edu.au/about/attributes.html">http://www.unimelb.edu.au/about/attributes.html</a>																											
<b>Professional Accreditation:</b>	The Bachelor of Engineering is accredited with Engineers Australia																											
<b>Generic Skills:</b>	<p>Upon completion of this course the student should have developed their:</p> <ul style="list-style-type: none"> <li># Ability to apply knowledge of basic science and engineering fundamentals;</li> <li># Ability to communicate effectively, not only with engineers but also with the community at large;</li> <li># In-depth technical competence in at least one engineering discipline;</li> <li># Ability to undertake problem identification, formulation and solution;</li> <li># Ability to utilise a systems approach to design and operational performance;</li> </ul>																											

- # Ability to function effectively as an individual and in multi-disciplinary and multicultural teams, with the capacity to be a leader or manager as well as an effective team member;
- # Understanding of the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development;
- # Understanding of the principles of sustainable design and development;
- # Understanding of and commitment to professional and ethical responsibilities; and
- # Expectation and capacity to undertake life-long learning.