

## 355AC Bachelor of Engineering (Chemical Engineering)

<b>Year and Campus:</b>	2013
<b>CRICOS Code:</b>	003626G
<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>	400 credit points taken over 48 months
<b>Coordinator:</b>	Professor George Franks
<b>Contact:</b>	<p>Melbourne School of Engineering Ground Floor, Old Engineering (Building 173)</p> <p>Current students: Email: <a href="mailto:13MELB@unimelb.edu.au">13MELB@unimelb.edu.au</a> (<a href="mailto:13melb@unimelb.edu.au">mailto:13melb@unimelb.edu.au</a>) Phone: 13MELB (13 6352) +61 3 9035 5511</p> <p>Prospective students: Email: <a href="mailto:eng-info@unimelb.edu.au">eng-info@unimelb.edu.au</a> (<a href="mailto:eng-info@unimelb.edu.au">mailto:eng-info@unimelb.edu.au</a>) Phone +61 3 8344 6944</p>
<b>Course Overview:</b>	<p><b>THE COURSE STRUCTURE BELOW 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>
<b>Objectives:</b>	<p>The course objectives are that graduates will acquire:</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</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</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 Bachelor of Engineering (Chemical) requires the completion of 400 points over four years.
<b>Majors/Minors/Specialisations</b>	None
<b>Subject Options:</b>	THERE IS NO FURTHER ENTRY INTO THIS COURSE

Note: Students must complete 400 credit points comprising the core program of discipline subjects.

Student who have not yet completed the requirements of the Bachelor of Engineering (Chemical and Biomolecular Engineering) degree should see a course advisor. The following final year subjects are available in 2013:

### Final Year Subjects

Subject	Study Period Commencement:	Credit Points:
CHEN90018 Particle Mechanics and Processing	Not offered 2013	12.50
CHEN90012 Process Equipment Design	Not offered 2013	12.50
CHEN90019 Advanced Heat & Mass Transport Processes	Not offered 2013	12.50
CHEN90013 Process Engineering	Not offered 2013	12.50
CHEN90011 Bioenvironmental Engineering	Not offered 2013	12.50
CHEN90010 Minerals, Materials and Recycling	Not offered 2013	12.50
CHEN90022 Chemical Engineering Design Project	Not offered 2013	25
CHEN90023 Chemical Engineering Research Project	Semester 1	25

#### Entry Requirements:

There is no further entry into this course.

#### 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>

#### Further Study:

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.

#### Graduate Attributes:

The Bachelor of Engineering is a professional degree. Graduate can obtain professional recognition by joining Engineers Australia who have accredited these programs. The Bachelor of Engineering also delivers on the University graduate attributes - <http://www.unimelb.edu.au/about/attributes.html>

#### Professional Accreditation:

The Bachelor of Engineering is accredited by Engineers Australia.

#### Generic Skills:

Upon completion of this course the student should have developed their:

- # 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 utilise a systems approach to design and operational performance
- # 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

## # Expectation and capacity to undertake life-long learning

**Notes:**

When setting the timetable every effort will be made to avoid clashes between the times of classes associated with these sets of subjects, Students should be aware however, that if it proves to be impossible to achieve a timetable without clashes in these sets of subjects, the Faculty reserves the right to modify course structures in order to eliminate the conflicts. Students will be advised during the enrolment period of the semester if the recommended courses need to be varied. Where the courses include elective subjects these should be chosen so that timetable clashes are avoided. In particular, students in combined degrees should plan their courses so that the subjects chosen in the other faculty do not clash with those recommended for the engineering component.