985AC Bachelor of Engineering (Chemical) and Bachelor of Science

Year and Campus:	2013
CRICOS Code:	009725A
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	500 credit points taken over 60 months
Coordinator:	Professor George Franks
Contact:	Melbourne School of Engineering Ground Floor, Old Engineering (Building 173) Current students: Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)** Phone: 13MELB (13 6352) +61 3 9035 5511 Prospective students: Email: **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)** Phone +61 3 8344 6944
Course Overview:	**THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008** 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.
Objectives:	The course objectives are that graduates should have acquired: # A broad knowledge of science and engineering in several disciplines including a sound fundamental understanding of scientific and engineering principles and methods # An in-depth knowledge and skills within specified areas of engineering and science # The appropriate analytical, problem-solving and design skills # Capacity to apply practical skills towards the development of mathematical and computer-based solutions of problems # Learning skills and a knowledge base to enable them to readily accommodate future changes in technology # Verbal and written communication skills that enable them to communicate effectively in the context of defining and solving problems # An understanding of the basic principles underlying the management of physical, human and financial resources # 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 # An appreciation of the roles and responsibilities of engineers and scientists in society # The educational and professional standards of the professional institutions with which the faculties' courses are accredited
Course Structure & Available Subjects:	The standard BE/BSc combined degrees require a total of 500 points, within which students must take a minimum of 300 engineering points and 237.5 science points. The total points of a standard course can be kept to 500 as at least 50 points of core material within the various streams of engineering also earn science points. BE/BSc course structure To satisfy course requirements students must:

Take the set of core engineering subjects prescribed for the branch of engineering being studied. This will include the professional study requirements in one of chemical engineering, civil engineering, environmental engineering, mechanical engineering; and either electrical, computer or software engineering;

All students in the combined degree Bachelor of Engineering/Bachelor of Science are required to complete 237.5 science points, which must include:

Between 75 and 125 points at Level 1
Completion of 50 points of a prescribed science major at Level 3. Detailed information on the science majors available is contained within the Handbook entry for the Bachelor of Science course (course code 755BB)

With regard to the science component note that:

There are no specific requirements at Level 2
The engineering component may require the completion of specific science subjects (e.g. at first year level). These subjects are detailed in the requirements of the various engineering streams
Students will not normally be permitted to complete more than 237.5 science points

A science major is defined as 50 points at Level 3 in an approved science discipline.
To complete a science major, students complete one of the science majors listed in the Handbook entry for the Bachelor of Science course (course code 755BB). Students may not complete alternative combinations of subjects to major unless approval is obtained from the Eastern Precinct Student Centre. The University is committed to ensuring that students are not disadvantaged by recent changes to the curriculum and students may complete a major as defined by the current structure or a structure detailed in a previous year's handbook applicable to any year the student was enrolled in the course. Bachelor of Engineering/Bachelor of Science students who require advice on an appropriate subject selection to complete a specific science major should contact the EPSC.

A full list of subjects available for science credit for the BE/BSc;
https://handbook.unimelb.edu.au/view/current/%21755-BB-SPC%2B1000 (../../view/current/%21755-BB-SPC%2B1000)

Majors/Minors/ Specialisations

None

Subject Options:

THERE IS NO FURTHER ENTRY INTO THIS COURSE

Note:

The last intake for this course was in 2007. Students still enrolled in this course need to seek specific personalised advice from a Course Adviser on the requirements necessary to complete the degree

The double degree, Bachelor of Engineering (Chemical and Biomolecular Engineering)/ Bachelor of Science requires the completion of 500 points usually over five years. Students who have not yet completed the requirements of the Bachelor of Engineering degree should see a course advisor.

Final Year

Subject	Study Period Commencement:	Credit Points:
CHEN90019 Advanced Heat & Mass Transport Processes	Not offered 2013	12.50
CHEN90018 Particle Mechanics and Processing	Not offered 2013	12.50
CHEN90012 Process Equipment Design	Not offered 2013	12.50
CHEN90013 Process Engineering	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 the combined degree.		
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 with 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		