Bachelor of Engineering (Honours) (Civil and Structural) (BE(Hons)(CivStruct))

2015

These Program Rules should be read in conjunction with the University's policies (http://www.adelaide.edu.au/policies).

Overview

This program will provide students with skills and knowledge in creating and maintaining the physical infrastructure of society while managing and conserving natural resources. The program has an emphasis on engineering problem-solving and design and analysis using modern, computer-based methods. The first and second years of the program develop mathematics and science skills, with fundamental engineering and design courses. Third and fourth years include professional engineering courses, specialisations, communication and management courses and project work within the main areas of structural, geotechnical and water engineering.

Students are also required to complete 12 weeks of approved practical experience during their study. Graduates of the program qualify for professional membership of Engineers Australia.

The Bachelor of Engineering (Honours) (Civil and Structural) is an AQF Level 8 qualification with a standard full-time duration of 4 years.

1. Academic Program Rules for Bachelor of Engineering (Honours) (Civil and Structural)

There shall be a Bachelor of Engineering (Honours) (Civil and Structural).

2. Qualification Requirements

2.1 Academic Program

To qualify for the degree of Bachelor of Engineering (Honours) (Civil and Structural), the student must complete satisfactorily a program of study consisting of the following requirements with a combined total of not less than 96 units:

2.1.1 Core Courses

C&ENVENG 1008 Engineering Planning & Design IA (3 units)
C&ENVENG 1009 Civil & Environmental Engineering IA (3 units)
C&ENVENG 1010 Engineering Mechanics - Statics (3 units)
C&ENVENG 1012 Engineering Modelling & Analysis IA (3 units)
C&ENVENG 2025 Strength of Materials IIA (3 units)
C&ENVENG 2067 Construction, Management & Surveying (3 units)
C&ENVENG 2068 Environmental Engineering & Sustainability II (3 units)
C&ENVENG 2069 Geotechnical Engineering IIA  (3 units)
C&ENVENG 2070 Engineering Modelling & Analysis IIA  (3 units)
C&ENVENG 2071 Water Engineering IIA  (3 units)
C&ENVENG 2072 Structural Engineering Design  (3 units)
C&ENVENG 3001 Structural Mechanics IIIA  (3 units)
C&ENVENG 3005 Structural Design III (Concrete)  (3 units)
C&ENVENG 3007 Structural Design III (Steel)  (3 units)
C&ENVENG 3012 Geotechnical Engineering Design III  (3 units)
C&ENVENG 3077 Engineering Hydrology  (3 units)
C&ENVENG 3079 Water Engineering & Design III S2  (3 units)
C&ENVENG 3221 Research Project Part A: Methodologies & Management  (3 units)
C&ENVENG 4034 Engineering Management IV  (3 units)
C&ENVENG 4068 Computer Methods of Structural Analysis  (3 units)
C&ENVENG 4222 Research Project Part 1: Civil  (3 units)
C&ENVENG 4223 Research Project Part 2: Civil  (6 units)
MATHS 1011 Mathematics IA  (3 units)
MATHS 1012 Mathematics IB  (3 units)
MATHS 2201 Engineering Mathematics IIA  (3 units)
MECH ENG 1007 Engineering Mechanics - Dynamics  (3 units)

plus

Courses to the value of at least 3 units from the following:
COMP SCI 1010 Puzzle Based Learning  (3 units)
GEOLOGY 1104 Geology for Engineers I  (3 units)

plus

Courses to the value of at least 3 units from the following:
C&ENVENG 3029 Environmental Modelling & Management  (3 units)
CHEM ENG 4051 Water & Wastewater Engineering  (3 units)

2.1.2 Electives

Courses to the value of 9 units taken from one of the following specialisations:
Structural Engineering

C&ENVENG 4069 Advanced Reinforced Concrete (3 units)
C&ENVENG 4099 Structural Response to Blast Loading (3 units)
C&ENVENG 4107 Prestressed Concrete Structures (3 units)
C&ENVENG 4113EX Christchurch Earthquake Study Tour (3 units)

Geotechnical

C&ENVENG 4106 Introduction to Geostatistics (3 units)
C&ENVENG 4112 Advanced Civil Geotechnical Engineering (3 units)
C&ENVENG 4056 Linear Geostatistics (3 units)

Water Engineering

C&ENVENG 4073 Water Distribution Systems & Design (3 units)
C&ENVENG 4114 Hydrological Modelling & Water Resources Management (3 units)
C&ENVENG 4115 Flood Estimation & Modelling (3 units)
CHEM ENG 4051 Water & Wastewater Engineering (3 units)

Environmental Engineering

C&ENVENG 3029 Environmental Modelling & Management (3 units)
C&ENVENG 4108 Environmental Engineering Design IVA (3 units)
C&ENVENG 4109 Environmental Engineering Design IVB (3 units)
C&ENVENG 4110 Environmental Engineering Design IVC (3 units)

Mining Engineering

MINING 3072 Mine Geomechanics (3 units)
MINING 4102 Mine Geotechnical Engineering (3 units)

Engineering Communication

ENG 3003 Engineering Communication EAL^ (3 units)

Students should undertake at least two electives from the Structural, Geotechnical or Water Engineering groups and may only undertake one Mining Engineering elective in any one year.

Alternatively, students may substitute up to 3 units of Level II / III courses offered by the School of Mathematical Sciences.

Students may also, with the approval of the Head of School, replace one or more elective courses with appropriate courses offered by other schools in the University.

^Unless exempted by the Faculty, all international students are required to take this course and the

Further Enquiries
Faculty will advise which course is to be replaced by ENG 3003 Engineering Communication EAL.

2.1.3 Work Based Training / Extra Mural Studies

Students must complete a total of 12 weeks practical experience, approved by the Faculty and of which a minimum 6 weeks should be under the supervision of a professional engineer.

2.1.4 Repeating Courses

A student who has failed a course twice may not enrol in that course again except by special permission of the Faculty and then only under such conditions as the Faculty may prescribe.

For all current Academic Programs Rules, visit:

The University of Adelaide Calendar website

For information about Programs and Courses, contact Ask Adelaide:

Telephone: +61 8 8313 5208

Freecall: 1800 061 459

Online enquiries: adelaide.edu.au/student/enquiries

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