

Design and

# build

the future



## Bachelor of Engineering (Civil) (Honours)

Civil engineers plan, design, build and maintain the infrastructure we rely on as a civilisation – including things like buildings, roads, water systems and more. This program develops your practical skills in engineering design, project management and sustainability, and qualifies you to work as a civil engineer and help shape the world around you in Australia and overseas.

In this program you will:

- Learn how to use mathematical and scientific principles to solve a range of technical problems
- Get hands-on experience through 12 weeks of work experience with professional engineers and engineering associates
- Choose from a wide range of minors including climate change and coastal zone studies, management for engineers, mechatronic engineering and electrical and electronic engineering
- Complete a major final-year research project on a topic of your choice
- Learn from industry professionals through guest lectures that expose you to current engineering professional practice
- Recreate interactive real-life scenarios in USC's state-of-the-art visualisation studio and dedicated engineering laboratories

### Exemption for first year Mathematics

High achieving mathematics students can apply for exemptions to introductory mathematics and calculus subjects. However, exempted courses will need to be replaced with engineering relevant courses to fulfil the

requirements of the degree. Apply through the School of Science and Engineering.

### Post-admission requirements

Students must complete 60 days of suitable field experience.

### Career opportunities

- Government agencies
- Construction companies
- Engineering consultancies
- Building industry
- Mining industry
- Research organisations

### Membership

Engineering students are eligible for free membership to Engineers Australia. Once their degree is completed they are eligible for Graduate membership.

This program is internationally recognised to allow you to work in Australia and overseas.

### MORE INFORMATION

Contact the International Office  
[study@usc.edu.au](mailto:study@usc.edu.au)  
+61 7 5430 2843

[usc.edu.au/sc410](http://usc.edu.au/sc410) | CRICOS code: 078425G

University of the Sunshine Coast | CRICOS Provider Number: 01595D | Correct as at 29 October 2021  
Note: Study options and semester of offer can vary depending on the study location. For full details, visit [usc.edu.au](http://usc.edu.au).



Rise, and shine.

## PROGRAM STRUCTURE

### Introductory courses (8) 96 units

**ENG101** Foundations of Engineering  
**ENG102** Engineering Statics  
**ENG103** Introduction to the Internet of Things  
**ENG104** Introduction to Engineering Design  
**MTH103** Introduction to Applied Mathematics  
**MTH104** Introductory Calculus  
**SCI107** Physics  
**SCI110** Science Research Methods

### Developing courses (8) 96 units

**CIV200** Structural Analysis and Computer Modelling  
**CIV201** Soil Mechanics  
**ENS253** Geographic Information Science and Technology  
**MEC200** Thermofluids 1  
**MEC221** Mechanics of Materials  
**MEC225** Engineering Materials  
**MTH201** Calculus II and Linear Algebra  
**MTH203** Numerical Analysis

### Graduate courses (12) 144 units

**CIV300** Structural Engineering  
**CIV301** Design of Roads and Drainage  
**CIV330** Engineering Hydrology  
**CIV340** Construction Technology  
**CIV400** Water Supply and Wastewater Treatment systems  
**CIV401** Sustainable Transport Systems  
**CIV451** Concrete Structures and Technology  
**ENG302** Engineering Project Management  
**ENG304** Engineering Research Methodology  
**ENG401** Engineering Project 1  
**ENG402** Engineering Project 2  
**CIV404** Engineering Sustainable Design

### Minor courses (4) 48 units

Students must select one of the following minor study areas:

- Climate Change and Coastal Zone Studies
- Electrical and Electronic Engineering (for Civil Engineers)\*\*
- Entrepreneurship
- Environmental Studies for Engineers<sup>^</sup>
- Management for Engineers<sup>^</sup>
- Mechatronic Engineering (for Civil Engineers)\*\*
- Mechanical Engineering (for Civil Engineers)
- Public Health for Engineers<sup>^</sup>
- Town Planning Studies<sup>^</sup>
- Visualisation and Animation
- Wider Engineering Studies

<sup>^</sup>Not available at Moreton Bay campus

\*\*Not available at Sunshine Coast campus

## Honours

The Bachelor of Engineering (Civil) (Honours) may be awarded with Honours. The class of Honours to be awarded to a student is dependent upon:

- the percentage results achieved by study or transfer in twelve courses (144 units) as specified in the table below; and
- the student achieving at least 65% in **ENG402** Engineering Project 2.

## COURSES

**CIV201** Soil Mechanics  
**CIV300** Structural Engineering  
**ENG302** Engineering Project Management  
**CIV301** Design of Roads and Drainage  
**ENG304** Engineering Research Methodology  
**ENG401** Engineering Project 1  
**ENG402** Engineering Project 2  
**CIV404** Engineering Sustainable Design  
**CIV400** Water Supply and Wastewater Treatment systems  
**CIV451** Concrete Structures and Technology  
**CIV401** Sustainable Transport Systems  
**MTH203** Numerical Analysis

A student must complete a minimum of 8 courses (96 units) in the table and the research project for an honours grade to be awarded.

The minimum levels of achievement normally required for each class of honours are shown in the following table:

HONOURS RESULTS CLASSIFICATION	OVERALL PERCENTAGE ATTAINED IN SPECIFIED COURSES*
Honours Class I	80% - 100%
Honours Class IIA	70% - 79%
Honours Class IIB	60% - 69%

\*The percentage result shall be rounded up if  $\geq 0.5$  or rounded down if  $< 0.5$ .

Note: Program structures are subject to change. Not all USC courses are available on every USC campus.