Design

systems for and manage human interaction with the environment

Bachelor of Engineering (Civil) (Honours) / Bachelor of Environmental Science

Gain a broad foundation in civil engineering and environmental sciences, and learn how to design systems that anticipate and manage the way humans interact with the environment.

During the program, you'll build your expertise in areas including environmental management, planning and restoration, managed ecosystems and marine science.

At the end of your studies you will have the scientific skills needed to make judgements on the conservation and use of Australia's natural ecosystems and resources.

In this program you will:

- Complete more than 60 days of work experience
- Learn about the creative nature of engineering
- Develop skills in problem-solving, teamwork and communication
- Gain technical, business management and scientific environmental knowledge
- Attain Engineers Australia graduate status

Exemption for first year Mathematics

Students who enter the program having achieved a 'Very High Achievement' in Maths C in secondary school may be eligible for an exemption for **MTH103** Introduction to Applied Mathematics and may also be eligible for an exemption to **MTH104** Introductory Calculus on application. Students who are exempted from one or two courses will need to substitute one or two engineering relevant courses in order to fulfil the requirements of the degree.

Post-admission requirements

Students must complete 60 days of suitable field experience.

Career opportunities

- Government agencies
- Construction companies
- Engineering consultancies
- Building industry
- Water supply authorities
- Mining industry
- Research organisations
- Parks and wildlife
- Resource management
- Environmental consultancies

Membership

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

Graduates are eligible to become members of:

- Australian Network for Plant Conservation
- Australian Water Association
- Ecological Society of Australia
- Environment Institute of Australia and New Zealand
- Australian Marine Sciences Association

MORE INFORMATION

Contact the International Office
study@usc.edu.au
+61 7 5430 2843

usc.edu.au/sc425 | CRICOS code: 085715F

University of the Sunshine Coast | CRICOS Provider Number: 01595D | Correct as at 29 October 2021

USC
Rise, and shine.

PROGRAM STRUCTURE

Introductory courses (11) 132 units

ENG101 Foundations of Engineering
ENG102 Engineering Statics
ENG103 Introduction to the Internet of Things
ENG104 Introduction to Engineering Design
ENS103 Earth's Surface Processes
MTH103 Introduction to Applied Mathematics
MTH104 Introductory Calculus
SCI102 Biodiversity and Ecology
SCI105 Introductory Chemistry
SCI107 Physics
SCI110 Science Research Methods

Developing courses (13) 156 units

CIV200 Structural Analysis and Computer Modelling
CIV201 Soil Mechanics
ENS221 Plant Diversity and Ecology
ENS222 Terrestrial Vertebrate Diversity and Ecology
ENS224 Soil Properties, Processes and Rehabilitation
ENS242 Weather and Climate
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

PLUS 1 course from the following:

ANM203 Statistics with Teeth: Understanding Ecological Data
SCI202 Advanced Research Methods and Statistics

Graduate courses (15) 180 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
CIV404 Engineering Sustainable Design
CIV451 Concrete Structures and Technology
ENG302 Engineering Project Management
ENG304 Engineering Research Methodology
ENG401 Engineering Project 1
ENG402 Engineering Project 2
ENS321 Restoration Ecology
ENS325 Population Ecology and Genetics
GEO302 Coastal Geomorphology

Elective course (1) 12 units

Select 1 elective course (12 units) from the undergraduate elective course options.

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 eleven courses (132 units) as specified in the table below;

and

- the student achieving at least 65% in **ENG402** Engineering Research 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 ATTAINDED 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 ≥ 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.

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Note: Study options and semester of offer can vary depending on the study location. For full details, visit usc.edu.au.