

Bachelor of Engineering (Civil) (Honours)



Moreton Bay, Semester 1 2023

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)**
- Environmental Studies for Engineers^
- Management for Engineers^
- Mechatronic Engineering (for Civil Engineers)**
- Mechanical Engineering (for Civil Engineers)
- Public Health for Engineers^
- Town Planning Studies^
- Visualisation and Animation

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- Wider Engineering Studies

^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 ≥ 0.5 or rounded down if < 0.5 .

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

Total units: 384

Study sequence

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Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
ENG101 Foundations of Engineering	• Semester 1	12	
MTH103 Introduction to Applied Mathematics	• Semester 1	12	Anti: MTH102
SCI107 Physics	• Semester 1	12	Anti: SCI108 or SCI507
SCI110 Science Research Methods	• Semester 1, Semester 2	12	Anti: SCI201 or CPH261

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
ENG102 Engineering Statics	• Semester 2	12	Pre: (SCI107 and (MTH103 or MTH102) and enrolled in Program SC404, SC405, SC410, SC411 SC425) or AB101, UU301, UU302 or XU301 Anti: CIV1501(USQ equivalent course)
ENG103 Introduction to the Internet of Things	• Semester 2	12	
ENG104 Introduction to Engineering Design	• Semester 2	12	Anti: ENG202
MTH104 Introductory Calculus	• Semester 2	12	Anti: MTH202

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
MEC221 Mechanics of Materials	• Semester 1	12	Pre: (ENG102 or CIV1501(USQ equivalent course)) and enrolled in Program SC404, SC405, SC410, SC411 or SC425 Anti: ENG221 or MEC2402(USQ course)
MEC225 Engineering Materials	• Semester 1	12	Pre: MTH102 or MTH103 and enrolled in program SC367, SC404, SC405, SC410, SC411, SC425, AB101, UU301, UU302 or XU301.

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ENS253 Geographic Information Science and Technology	• Semester 1	12	Anti: ENG225 or MEC1201
MTH201 Calculus II and Linear Algebra	• Semester 1	12	Pre: MTH104 or MTH202

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV200 Structural Analysis and Computer Modelling	• Semester 2	12	Pre: MEC221 and enrolled in Program SC410 or SC425
CIV201 Soil Mechanics	• Semester 2	12	Pre: Must be enrolled in Program SC405, SC410, SC411, SC425 or AB101 Anti: CIV2403 or ENG312
MEC200 Thermofluids 1	• Semester 2	12	Pre: (MTH102 or MTH103), MTH104 and SCI107. Must be enrolled in SC404, SC405, SC410, SC411 or SC425 Anti: MEC2101(USQ course) or ENG204
MTH203 Numerical Analysis	• Semester 2	12	Pre: MTH202 or (MTH103 and MTH104) Anti: MTH532 or MTH312

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV330 Engineering Hydrology	• Semester 1	12	Pre: ENG102 Anti: ENG330
CIV340 Construction Technology	• Semester 1	12	Pre: Enrolled in Program SC410, SC411, SC425, SC404, SC405 Anti: ENG340
ENG302 Engineering Project Management	• Semester 1	12	

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PLUS select 1 course from your chosen minor study area

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV300 Structural Engineering	• Semester 2	12	Pre: CIV200 and enrolled in Program SC410, SC425, SC411, SC404, SC405, AB101, UU301 or XU301 Anti: ENG212
CIV301 Design of Roads and Drainage	• Semester 2	12	Pre: ENG104 or ENG202 Anti: ENG422
ENG304 Engineering Research Methodology	• Semester 2	12	Pre: 192 units and enrolled in Program SC404, SC405, SC410, SC411, SC425

PLUS select 1 course from your chosen minor study area

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV400 Water Supply and Wastewater Treatment systems	• Semester 1	12	Pre: MEC200 or ENG211
CIV451 Concrete Structures and Technology	• Semester 1	12	Pre: (CIV200 or ENG212) and (ENG225 or MEC225) and enrolled in program SC410, SC425, SC411, SC404, SC405 Anti: ENG451
ENG401 Engineering Project 1	• Semester 1, Semester 2	12	Pre: MEC221 or ELC200, and 228 units completed and enrolled in Program SC404, SC405, SC410, SC411 or SC425 Co: ENG302 and (ENG403 or ENG304)

PLUS select 1 course from your chosen minor study area

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Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV401 Sustainable Transport Systems	• Semester 2	12	Pre: Enrolled in SC410 or SC425
CIV404 Engineering Sustainable Design	• Semester 2	12	Pre: ENG202 or ENG104 and enrolled in SC410, SC425, SC411, SC404, SC405, AB101, UU301, UU302 or XU301 Anti: ENG404
ENG402 Engineering Project 2	• Semester 1, Semester 2	12	Pre: ENG401

PLUS select 1 course from your chosen minor study area

Program requirements and notes

In order to graduate you must:

- Successfully complete 384 units as outlined in the Program Structure
- Select a minor from one of the minors as listed below. Students must choose the minor to be studied before the completion of Semester 1, Year 3
- Complete a minimum of 60 days of suitable work experience. Students must meet all costs associated with the acquisition of practical experience to satisfy this requirement

Program notes

- Completing this program within the specified (full-time) duration is based on studying 48 unit points per semester (normally 4 courses) and following the recommended study sequence
- The unit value of all courses is 12 units unless otherwise specified
- It is each student's responsibility to enroll correctly according to your course requisites, program rules and requirements and be aware of the academic calendar dates
- Courses within this program are assessed using a variety of assessment methods including essays, seminar presentations, reports, in-class tests and examinations. Not all courses will necessarily include all methods
- As part of your UniSC program, you may apply to Study Overseas to undertake courses with an overseas higher education provider
- Refer to the Managing your progression page for help in understanding your program structure, reviewing your progress and planning remaining courses.

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