

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



Moreton Bay, Semester 1 2024

Program structure

Introductory courses (11) 132 units

ENG101 Professional Engineering
ENG102 Engineering Statics
ENG103 Introduction to the Internet of Things
ENG104 Foundations of 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
CIV201 Geotechnical Engineering
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 Thermodynamics
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 Design
CIV301 Road and Traffic Engineering
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

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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 Geotechnical Engineering
CIV300 Structural Design
ENG302 Engineering Project Management
CIV301 Road and Traffic Engineering
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: 480

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Study sequence

The Bachelor of Engineering (Civil) (Honours)/Bachelor of Environmental Science recommended study sequence is for students commencing in the current semester.

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
ENG101 Professional Engineering	• Semester 1	12	
ENS103 Earth's Surface Processes	• Semester 1	12	
MTH103 Introduction to Applied Mathematics	• Semester 1	12	Anti: MTH102
SCI107 Physics	• Semester 1	12	Anti: SCI108 or SCI507

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
ENG102 Engineering Statics	• Not Currently Offered	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	Anti: ENG106
ENG104 Foundations of 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
ENS253 Geographic Information Science and Technology	• Semester 1	12	
MEC221 Mechanics of Materials	• Semester 1	12	Pre: ENG102 or ENG105 Anti:

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ENG221

SCI105 Introductory Chemistry	• Semester 1, Semester 2	12	Anti: SCI505
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PLUS select 1 elective course from the undergraduate elective course options.

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
SCI102 Biodiversity and Ecology	• Semester 2	12	Anti: ENS102
CIV201 Geotechnical Engineering	• Semester 1	12	Pre: ENG105 or ENG102
ENS224 Soil Properties, Processes and Rehabilitation	• Semester 2	12	Pre: ENS103
MEC200 Thermodynamics	• Semester 2	12	Pre: (MTH103 and MTH104 and SCI107) or Enrolled in MC004 Anti: ENG204

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
SCI110 Science Research Methods	• Semester 1, Semester 2	12	Anti: SCI201 or CPH261
ENS221 Plant Diversity and Ecology	• Semester 1	12	Pre: SCI102 Anti: ENS201
MEC225 Engineering Materials	• Not Currently Offered	12	Pre: MTH102 or MTH103 and enrolled in program SC367, SC404, SC405, SC410, SC411, SC425, AB101, UU301, UU302 or XU301. 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	• Semester 2	12	Pre: ENG105 or ENG102

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ENS222 Terrestrial Vertebrate Diversity and Ecology	• Semester 2	12	Pre: SCI102
ENS242 Weather and Climate	• Semester 2	12	

PLUS select 1 course from:

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
ANM203 Statistics with Teeth: Understanding Ecological Data	• Semester 2	12	Pre: SCI110 or BUS101
SCI202 Advanced Research Methods and Statistics	• Semester 2	12	Pre: SCI110 or BUS101 Anti: ANM203

Semester 1

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV330 Engineering Hydrology	• Not Currently Offered	12	Pre: ENG102 Anti: ENG330
CIV340 Construction Technology	• Not Currently Offered	12	Pre: Enrolled in Program SC410, SC411, SC425, SC404 or SC405 Anti: ENG340
ENG302 Engineering Project Management	• Semester 1	12	Pre: Students to have completed at least 96 credits Anti: ENG305
ENS321 Restoration Ecology	• Semester 1	12	Pre: ENS221 or ENS222 or ENS282 or ENS213 or ENS214 or LFS261 Anti: ENS361

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV300 Structural Design	• Semester 1	12	Pre: CIV200 Anti:

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ENG304 Engineering Research Methodology	• Semester 2	12	ENG212 Pre: 192 units and enrolled in Program SC404, SC405, SC410, SC411, SC425
GEO302 Coastal Geomorphology	• Semester 2	12	
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
CIV400 Water Supply and Wastewater Treatment systems	• Not Currently Offered	12	Pre: MEC200 or ENG211
CIV451 Concrete Structures and Technology	• Not Currently Offered	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)
ENS325 Population Ecology and Genetics	• Semester 1	12	Pre: ENS221 or ANM203 or SCI212

Semester 2

COURSE	SEMESTER OF OFFER (MORETON BAY)	UNITS	REQUISITES
CIV301 Road and Traffic Engineering	• Semester 1	12	Pre: ENG104 or ENG202 or ENG206 Anti: ENG422
CIV401 Sustainable Transport Systems	• Semester 1	12	Pre: Enrolled in Program GC002, GD002, MC002, GC006, GD006, MC006, SC410 or SC425

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CIV404 Engineering Sustainable Design	• Not Currently Offered	12	Pre: ENG202 or ENG104 and enrolled in SC410, SC425, SC411, SC404 or SC405 Anti: ENG404
ENG402 Engineering Project 2	• Semester 1, Semester 2	12	Pre: ENG401

[Back to top](#)

Program requirements and notes

In order to graduate you must:

- Successfully complete 480 units as outlined in the Program Structure
- 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 12 units unless otherwise specified
- It is each students responsibility to enrol 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 which may include essays, seminar presentations, reports, in-class tests and examinations
- As part of your UniSC program, you may apply to Study Overseas to undertake courses with an overseas higher education provider
- Only a full-time study option is available to international students on a Student Visa
- 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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