

# Bachelor of Engineering (Mechanical) (Honours)



LOCATION	ENTRY THRESHOLD	QTAC CODE	START
Sunshine Coast	60.00	013741	Semester 1, Semester 2
Moreton Bay	60.00	014741	Semester 1, Semester 2

Make things happen. Mechanical engineers design, build and maintain complex machines and mechanical systems from the very small to the very large scale. Learn the finer points of engineering and machine design, fluid mechanics, and production engineering which will enable you to make systems and machinery for diverse industries from transport to medical devices.

In this program you will:

- Learn to use mathematical and scientific principles to solve a range of technical problems
- Get hands-on experience through 12 weeks of work experience
- Experience a broad array of courses covering areas like design, sustainability, modelling and management and leadership
- Manage 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 UniSC's state-of-the-art visualisation studio and dedicated engineering laboratories

Career opportunities

- Government agencies
- Pharmaceutical companies
- Engineering consultancies
- Research organisations
- Mining industry
- Chemical processing
- Construction
- Manufacturing
- Oil and gas
- Automotive
- Aviation
- Transport
- Defence
- Agriculture

Accreditation

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

Post admission requirements

Students must complete 60 days of suitable field experience.

Duration

4 years

Full-time or equivalent part-time

Indicative 2024 fees

A\$8,140 - 2025 Fees (CSP)

Fees are indicative only and will change based on courses selected and are subject to yearly increases

Prerequisites

English (Units 3 and 4, C)

Recommended prior study

Maths Methods and/or

Specialist Maths; and Physics

or Chemistry

Delivery mode

Blended Learning

Total courses

31

Total units

384

UniSC program code

SC411

[usc.edu.au/sc411](https://usc.edu.au/sc411)

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Study options and teaching period of offer can vary depending on the study location. For full details, visit [usc.edu.au](https://usc.edu.au).

## Program structure

Introductory courses (8) 96 units

ENG100 Materials in Engineering  
ENG101 Professional Engineering  
ENG104 Foundations of Engineering Design  
ENG105 Engineering Statics  
ENG106 Engineering Computing  
MTH103 Introduction to Applied Mathematics  
MTH104 Introductory Calculus  
SCI107 Physics

Developing courses (8) 96 units

ENG206 Sustainable Engineering (Design)  
MEC200 Thermodynamics  
MEC202 Mechanical Design  
MEC221 Mechanics of Materials  
MEC226 Manufacturing Technology  
MCH201 Systems and Signals  
MTH201 Calculus II and Linear Algebra  
MTH203 Numerical Analysis

Graduate courses (14) 192 units

ENG305 Engineering Management  
ENG306 Engineering System Design  
MCH300 Machine Component Design  
MCH302 Robotics and Autonomous Systems  
MEC304 Engineering Dynamics  
MEC305 Fluid Mechanics  
MEC308 System Dynamics and Control  
MEC335 Production Engineering  
ENG406 Engineering Project 1(24units)  
ENG407 Engineering Project 2(24 units)  
MCH402 Advanced Control Systems Engineering  
MEC401 Advanced Engineering Materials  
MEC402 Heat Transfer  
MEC403 Computational Analysis

Honours

The Bachelor of Engineering (Mechanical) (Honours) may be awarded with Honours. The class of Honours awarded to a student is calculated using the mean mark achieved when completing the 96 units of AQF8 level courses (400 coded).

### HONOURS RESULTS CLASSIFICATION

### MEAN MARK ACHIEVED IN AQF8 COURSES (400 CODED)

Honours Class I	80% - 100%
Honours Class IIA	70% - 79.5%
Honours Class IIB	60% - 69.5%
Honours Class III	50% - 59.5%
Marginal Fail	47% - 49.5%
Fail	0% - 46.5%

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

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