

# Bachelor of Engineering (Mechatronic) (Honours)



LOCATION	ENTRY THRESHOLD	QTAC CODE	START
Moreton Bay	60.00	014721	Semester 1, Semester 2
<p>Help engineer the future. Forget about robots coming to take your job – instead, make it your job to design the robots and automated systems of the future! Mechatronics is an exciting field that combines the best of mechanical, electrical and electronic and computer engineering to create new technologies and constantly improve the systems around us.</p> <p>In this program you will:</p> <ul style="list-style-type: none"><li>• Study the fundamentals of engineering, including applied maths, physics, statistics and system design</li><li>• Learn about robotics and autonomous systems, communication engineering, digital logic and computer programming, machine vision and more</li><li>• Get hands-on experience through 12 weeks of work experience</li><li>• Gain hands-on research project management experience</li></ul> <p>Career opportunities</p> <ul style="list-style-type: none"><li>• Robotics engineering</li><li>• Industrial engineering</li><li>• Product design</li><li>• Manufacturing</li><li>• Data communications</li><li>• Automotive</li></ul> <p>Accreditation</p> <p>This program is currently undergoing provisional accreditation by Engineers Australia.</p> <p>Post admission requirements</p> <p>Students must complete 60 days of suitable engineering work experience.</p>			<p>Duration 4 years Full-time or equivalent part-time</p> <p>Indicative 2024 fees A\$7,818 - 2024 Fees (CSP) Fees are indicative only and will change based on courses selected and are subject to yearly increases</p> <p>Prerequisites English (Units 3 and 4, C)</p> <p>Recommended prior study Maths Methods and/or Specialist Maths; and Physics or Chemistry</p> <p>Delivery mode Blended Learning</p> <p>Total courses 31</p> <p>Total units 384</p> <p>UniSC program code SC405</p>

## Program structure

Introductory courses (8) 96 units

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

[usc.edu.au/sc405](https://usc.edu.au/sc405)

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Developing courses (9) 96 units

ELC200 Digital Logic and Computer Programming  
ELC206 Analog and Digital Electronics  
ENG200 Professional Practice(0 units)  
ENG206 Sustainable Engineering (Design)  
MEC200 Thermodynamics  
MCH201 Systems and Signals  
MCH202 Electrical Machines and Drives  
MTH201 Calculus II and Linear Algebra  
MTH203 Numerical Analysis

Graduate courses (14) 192 units

ELC300 Electronic Design  
ELC302 Digital Signal Processing  
ENG305 Engineering Management  
ENG306 Engineering System Design  
MCH300 Machine Component Design  
MCH302 Robotics and Autonomous Systems  
MCH303 Engineering Computer Applications and Interactive Modelling  
MEC308 System Dynamics and Control  
ELC404 Advanced Digital and Embedded Systems  
ENG406 Engineering Project 1(24 units)  
ENG407 Engineering Project 2(24 units)  
MCH400 Image Processing and Machine Vision  
MCH401 Actuators and Drives in Mechatronic Systems  
MCH402 Advanced Control Systems Engineering

Honours

The Bachelor of Engineering (Mechatronic) (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%

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

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