

Bachelor of Mechatronics Engineering and Bachelor of Science

Student ID		Student name	
Course code	3282	Year commenced course	
Course version	1 (for students who commenced in 2010 onwards)		
Credit points	240 points = 108 points of science (18 units) and 132 points engineering (22 units)		
Duration of degree	5 years full time, 10 years part time		
Time limit	10 years. Students have ten years in which to complete this award from the time they commence their course. Periods of intermission are counted as part of the ten years.		
Honours	Students are awarded a degree with honours for meritorious performance throughout the course. No additional time is required.		
Notes	In second year, students choose from either a generic or a computer science sequence.		
Course adviser	http://www.eng.monash.edu.au/current-students/course-information.html#1		
Monash University Handbook	http://www.monash.edu.au/pubs/handbooks/		

Students should bring this course map with them when they seek course advice.

First year - All sequences	Mark	Grade
Core units		
<input type="checkbox"/> ENG1030 Electrical systems		
<input type="checkbox"/> ENG1040 Engineering dynamics		
<input type="checkbox"/> PHS1011 Physics (or PHS1080 Foundation physics if VCE 4 Physics not completed)		
<input type="checkbox"/> PHS1022 Physics		
Mathematics core		
Plus a pair of maths units from:		
<input type="checkbox"/> MTH1020 Analysis of change (if VCE 3/4 Specialist maths not completed) MTH1030 Techniques for modelling and MTH2010 Multivariable calculus		
<input type="checkbox"/> MTH1030 Techniques for modelling MTH2010 Multivariable calculus		
Science sequence		
Plus a pair of science units from:		
<input type="checkbox"/> ASP1010 Earth to cosmos - introductory astronomy ASP1022 Life and the universe		
<input type="checkbox"/> BIO1011 Biology I BIO1022 Biology II		
<input type="checkbox"/> CHM1011 Chemistry CHM1022 Chemistry		
<input type="checkbox"/> ESC1011 Planet earth and its environment: the cosmic connection ESC1022 Planet earth: dynamic systems, environmental change and resources		

<input type="checkbox"/> FIT1002 Computer programming		
FIT1008 Computer science		
<input type="checkbox"/> STA1010 Statistical methods for science		
MTH1112 Numbers, logic and graphs		
Second year	Mark	Grade
Core units		
<input type="checkbox"/> ENG2092 Advanced engineering mathematics B		
<input type="checkbox"/> MTH2021 Linear algebra with applications		
<input type="checkbox"/> MTH2032 Differential equations with modelling, and MTH2010 Multivariable calculus (if not taken at level 1)		
<input type="checkbox"/> TRC2100 Mechatronic design		
<input type="checkbox"/> TRC2300 Digital electronics		
<input type="checkbox"/> TRC2400 Computer programming (or elective if FIT1002 taken)		
Students select from one of two sequences:		
Generic sequence		
<input type="checkbox"/> PHS2011 Physics: quantum concepts and technologies		
<input type="checkbox"/> PHS2022 Physics for communications and measurement		
Computer science sequence		
<input type="checkbox"/> FIT2004 Algorithms and data structures		
<input type="checkbox"/> FIT2014 Theory of computation		
Third year	Mark	Grade
Core units		
<input type="checkbox"/> TRC2000 Mechatronics project I		
<input type="checkbox"/> TRC2200 Thermo-fluids and power systems		
<input type="checkbox"/> TRC2201 Mechanics		
<input type="checkbox"/> TRC2500 Electronics		
Generic sequence		
24 points of approved science units to complete a major sequence in science*		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
Computer science sequence		
18 points of computer science units to complete a major sequence in computer science, including one of FIT2001 or FIT2024, FIT3014 and one Computer Science level three electives from Faculty of Science approved list available at http://www.monash.edu.au/pubs/2010handbooks/undergrad/sci-ug-study-clayton-comp-sci.html .		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

Fourth year	Mark	Grade
Core units		
<input type="checkbox"/> TRC3000 Mechatronics project I		
<input type="checkbox"/> TRC3300 Microprocessor systems		
<input type="checkbox"/> TRC3500 Sensors and artificial perception		
<input type="checkbox"/> TRC3801 Mechatronics and manufacturing		
Generic sequence		
24 points of approved science units to complete a major sequence in science*		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
Computer science sequence		
24 points of approved science units to complete either a major sequence in mathematics or a double major sequence in computer science		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
Fifth year	Mark	Grade
Core units for both Generic and Computer Science sequences		
<input type="checkbox"/> MTE2544 Functional materials		
<input type="checkbox"/> TRC3200 Dynamical systems		
<input type="checkbox"/> TRC3501 Power electronics and drives		
<input type="checkbox"/> TRC3600 Modelling and control		
<input type="checkbox"/> TRC4000 Mechatronics final year project I		
<input type="checkbox"/> TRC4002 Professional practice		
<input type="checkbox"/> TRC4800 Robotics		
<input type="checkbox"/> TRC4801 Digital communications		
* Any sequence in science may be taken, provided the appropriate sequence requirements and prerequisites are completed. In some cases, students may elect to seek approval for an overload of up to 12 points at level 2 or 3 to enable these requirements to be completed in addition to the required science units at Level 2. ** Students considering entry to honours in computer science need to complete at least 24 points of level 3 computer science units, which may require an overloaded course to be approved if a double major in computer science is not completed at Level 4.		
Professional requirements		
Students may not graduate until they have completed their work experience and submitted a satisfactory report on the experience		
<input type="checkbox"/> 12 weeks approved engineering work experience		
<input type="checkbox"/> Report submitted to department and approved		