MONASH University
Engineering

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 2006 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		

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

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

☐ FIT1002 Computer programming		
FIT1015 Computer science		
☐ STA1010 Statistical methods for science		
MTH1112 Numbers, logic and graphs		
Second year	**Mark**	**Grade**
Core units		
☐ ENG2092 Advanced engineering mathematics B		
☐ MTH2021 Linear algebra with applications		
☐ MTH2032 Differential equations with modelling, and MTH2010 Multivariable calculus (if not taken at level 1)		
☐ TRC2100 Mechatronic design		
☐ TRC2300 Digital electronics		
☐ TRC2400 Computer programming (or elective if FIT1002 taken)		
Students select from one of two sequences:		
Generic sequence		
☐ PHS2011 Physics: quantum concepts and technologies		
☐ PHS2022 Physics for communications and measurement		
Computer science sequence		
☐ FIT2004 Algorithms and data structures		
☐ FIT2014 Theory of computation		
Third year	**Mark**	**Grade**
Core units		
☐ TRC2000 Mechatronics project I		
☐ TRC2200 Thermo-fluids and power systems		
☐ TRC2201 Mechanics		
☐ TRC2500 Electronics		
Generic sequence		
24 points of approved science units to complete a major sequence in science*		
☐		
☐		
☐		
☐		
Computer science sequence		
24 points of computer science units to complete a major sequence in computer science, including FIT3014, FIT3036 and two FIT level 3 electives from Faculty of Science approved list at: http://www.monash.edu.au/pubs/handbooks/undergrad/sci-ug-study-clayton-comp-sci.html		
☐		
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☐		
☐		

Fourth year	**Mark**	**Grade**
Core units		
☐ TRC3000 Mechatronics project I		
☐ TRC3300 Microprocessor systems		
☐ TRC3500 Sensors and artificial perception		
☐ TRC3801 Mechatronics and manufacturing		
Generic sequence		
24 points of approved science units to complete a major sequence in science*		
☐		
☐		
☐		
☐		
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		
☐		
☐		
☐		
☐		
Fifth year	**Mark**	**Grade**
Core units for both Generic and Computer Science sequences		
☐ MTE2544 Functional materials		
☐ TRC3200 Dynamical systems		
☐ TRC3501 Power electronics and drives		
☐ TRC3600 Modelling and control		
☐ TRC4000 Mechatronics final year project 1		
☐ TRC4002 Professional practice		
☐ TRC4800 Robotics		
☐ 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 overloaded course 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		
☐ 12 weeks approved engineering work experience		
☐ Report submitted to department and approved		