

# Course progression map for commencing students

This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the [Handbook](#).

## E3007 Bachelor of Engineering (Honours) and Bachelor of Science

### Specialisation – Robotics and Mechatronics Engineering – Artificial intelligence stream

#### Major – Computational science

	Bachelor of Aerospace Engineering (Honours)		Bachelor of Science		
<b>YEAR 1</b> Sem 1	Common First Year		FIT1045 or FIT103	Science elective	
<b>YEAR 1</b> Sem 2			FIT1008 or FIT1054	MAT1830 or FIT1058	
<b>YEAR 2</b> Sem 1			FIT2004 Algorithms and data structure	SCI1000 Science communication to influence change	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
<b>YEAR 2</b> Sem 2	ENG2005 Advanced engineering mathematics	FIT2094 Data bases	FIT2014 Theory of computation	Science elective level 2 or 3	
<b>YEAR 3</b> Sem 1	ECE2071 Computer organisation and programming	MEC2402 Design methods	ECE2131 Electrical circuits	Science elective level 2 or 3	
<b>YEAR 3</b> Sem 2	TRC2201 Mechanics	ECE2072 Digital systems	FIT3003 Business intelligence and data warehousing	Science elective level 2 or 3	
<b>YEAR 4</b> Sem 1	TRC3500 Sensor and artificial perception	TRC3200 Dynamical systems	FIT3139 Computational modelling and simulation	Science elective level 2 or 3	
<b>YEAR 4</b> Sem 2	TRC3600 Feedback control systems	Complete one Professional Practice domain unit	FIT2179 Data visualisation	Science elective level 2 or 3	
<b>YEAR 5</b> Sem 1	ENG4701 Final year project A	TRC4800 Robotics	ECE3161 Analogue electronic	ECE4076 Computer vision	ENG0001 Continuous Professional Development (0 credit points)
<b>YEAR 5</b> Sem 2	ENG4702 Final year project B	ECE4078 Intelligent robotics	ECE4179 Neural networks and deep learning	ECE4191 Engineering integrated design	

**NOTE:** · **ECE2071 or ECE2072** - If you have completed either unit as a First Year technical elective, you must replace the core with another unit from the robotics and mechatronics engineering technical electives list or from one of the [engineering minors](#). The replacement unit must be of the same level as the core unit or higher. · Engineering minors are not available in the Engineering double degree courses. · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the [CPD webpage](#). · Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester. · For enrolment advice, please refer to the [Course advisers webpage](#).