MONASH University

Course progression map for 2021 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. Please note that the map is subject to updates.
Update version: 5 November 2020

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Common first year

If no foundation units are required:

Year	Sem	Units			
1	1	ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Engineering mathematics	ENG1060 Computing for engineers	FIT1047 Introduction to computer systems networks and security
	2	ENG1002 Engineering design: cleaner, safer, smarter	ENG1003 Engineering mobile apps	Level one engineering unit	FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java

Tip: You can swap the semesters of your engineering elective and FIT1047.

If you need to enrol in foundation physics and maths*:

1	1	ENG1002 Engineering design: cleaner, safer, smarter	PHS1001 Foundation physics	ENG1090 Foundation mathematics	FIT1047 Introduction to computer systems networks and security
	2	ENG1003 Engineering mobile apps	ENG1005 Engineering mathematics	ENG1060 Computing for engineers	FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java

You must complete ENG1003 Engineering mobile apps in Year 1 and take ENG1001 Engineering design: lighter, faster, stronger in Year 2 (Semester 1) as an overload. This will increase the total credit points needed for the double degree by 6 points You cannot swap the semesters of any of the units.

If you need to enrol in foundation maths:

1	1	ENG1002 Engineering design: cleaner, safer, smarter	ENG1003 Engineering mobile apps	ENG1090 Foundation mathematics	FIT1047 Introduction to computer systems networks and security
	2	ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Engineering mathematics	ENG1060 Computing for engineers	FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java

If you need to enrol in foundation physics:

1	1	ENG1002 Engineering design: cleaner, safer, smarter	ENG1003 Engineering mobile apps	PHS1001 Foundation physics	FIT1047 Introduction to computer systems networks and security
	2	ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Engineering mathematics	ENG1060 Computing for engineers	FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java

Note:

- 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.
- For enrolment advice, please refer to the Course advisers webpage.

MONASH University

Course progression map for 2021 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. Please note that the map is subject to updates.
Update version: 5 November 2020

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering; IT major – Computer networks and security

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Information Technology		
YEAR 1 Semester 1	**Common First Year**			FIT1047 Introduction to computer systems networks and security	
YEAR 1 Semester 2				FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	FIT2094 Databases	FIT2093 Introduction to cyber security	If two foundation units are required then overload is required for ENG1001 Engineering design: lighter, faster, stronger
YEAR 2 Semester 2	ECE2191 Probability models in engineering	ECE2072 Digital systems	FIT1049 IT professional practice	FIT2100 Operating systems	
YEAR 3 Semester 1	ECE3073 Computer systems	ECE2131 Electrical circuits	FIT elective	FIT2001 Systems development or FIT2099 Object-oriented design and implementation	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	FIT2002 IT project management	FIT elective	
YEAR 4 Semester 1	ECE3161 Analogue electronics	ECE3141 Information and networks	FIT3173 Software security	FIT3165 Computer networks	
YEAR 4 Semester 2	ECE3091 Engineering design	ECSE technical elective at level 4	FIT3031 Network security	FIT2081 Mobile applications development or FIT3142 Distributed computing	
YEAR 5 Semester 1	ECE3051 Electrical energy systems	ECE4094 Project A	ECSE technical elective at level 4	FIT3047 IE Studio project 1	ENG0001 Continuous Professional Development (0 credit points)
YEAR 5 Semester 2	ECE4132 Control system design	ECE4095 Project B	ECE4099 Professional practice	FIT3048 IE Studio project 2	

Note:

- 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.
- For enrolment advice, please refer to the Course advisers webpage.

MONASH University

Course progression map for 2021 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. Please note that the map is subject to updates. Update version: 5 November 2020

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Software engineering; IT major – Computer Networks and Security

	Bachelor of Software Engineering (Honours)		Bachelor of Information Technology		
YEAR 1 Semester 1	**Common First Year**			FIT1047 Introduction to computer systems, networks and security	
YEAR 1 Semester 2				FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java	
YEAR 2 Semester 1	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	FIT2094 Databases	FIT2093 Introduction to cyber security	If two foundation units are required then overload is required for ENG1001 Engineering design: lighter, faster, stronger
YEAR 2 Semester 2	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	FIT1049 IT professional practice	FIT elective	
YEAR 3 Semester 1	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	FIT elective	FIT2001 Systems development	
YEAR 3 Semester 2	FIT2107 Software quality and testing	FIT2100 Operating systems	FIT2002 IT project management	FIT elective	
YEAR 4 Semester 1	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	FIT3173 Software security	FIT2081 Mobile applications development	
YEAR 4 Semester 2		Level 3 or 4 SE approved elective	FIT3031 Network security	FIT3142 Distributed computing	
YEAR 5 Semester 1	FIT4002 Software engineering industry experience studio project (12 points)	FIT4165 Computer networks	Software engineering technical elective at level 4 or above	FIT3047 IE Studio project 1	ENG0001 Continuous Professional Development (0 credit points)
YEAR 5 Semester 2		FIT4003 Software engineering research project (12 points)		FIT3048 IE Studio project 2	

Note:

- 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.
- For enrolment advice, please refer to the Course advisers webpage.