MONASH University

Course progression map for 2023 commencing students – **JULY ADMISSION**

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. The map is subject to updates. Update version: 8 June 2023

E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering

Common First Year

If no foundation units are required:

Year	Period	Units			
1	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics *Required: ENG1090 **</i>	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	First Year engineering technical elective+ *Or swap semester with the Elective unit*
	Sem 1 Feb	ENG1012 Engineering design	ENG1013 Engineering smart systems	Elective^	Elective^

If you need to enrol in foundation physics (PHS1001) and foundation maths (ENG1090)

1	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	MTH1020 Analysis of change * *This unit is in lieu of ENG1090 (which has only Sem 1 and Oct offerings)*	First Year engineering technical elective+
	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	PHS1001 Foundation physics * *Corequisite: ENG1090 **

If you need to enrol in foundation maths (ENG1090):

1	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	MTH1020 Analysis of change * *This unit is in lieu of ENG1090 (which has only Sem 1 and Oct offerings)*	First Year engineering technical elective+ *Or swap semester with the Elective unit*
	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	Elective^

If you need to enrol in foundation physics (PHS1001):

1	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	Elective^	First Year engineering technical elective+ *Or swap semester with the Elective unit*
	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering Mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	PHS1001 Foundation physics * *Required: ENG1090 **

Notes:

- * Foundation units: You enrol in the foundation units ENG1090 and/or PHS1001 if you have not completed the Australian VCE (Units 3 & 4) or equivalent Specialist mathematics and/or Physics with the required study score.
- **+ Biomedical engineering:** If you are planning to specialise in Biomedical engineering, you must take BMS1021 as the First Year engineering technical elective in Semester 1.
- Your First Year engineering technical elective must be selected from this list.
- ^Elective units may be chosen either from the First Year engineering technical elective list or from other faculties within the University, provided you meet the unit requisites.
- Care should be taken to ensure units are maintained in sequence.

For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage if you are in Clayton.

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Course progression map for 2023 commencing students – **JULY ADMISSION [For Direct entry]**

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E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering

Year	Sem	Units				
1	Sem 2 July	Common First Year				
	Sem 1 Feb					
2	Sem 2 July	FIT2085 Introduction to computer science for engineers	FIT2099 Object-oriented design and implementation	FIT2101 Software engineering process and management	FIT2107 Software quality and testing	
	Sem 1 Feb	FIT3170 Software engineering practice (12 points)	MAT1830 Discrete mathematics for computer science	FIT3077 Software engineering: Architecture and design	FIT2004 Algorithms and data structures	
3	Sem 2 July		FIT2100 Operating systems	FIT3171 Databases	Level 1, 2 or 3 elective or engineering technical elective	
	Sem 1 Feb	FIT4002 Software engineering industry experience studio project (12 points)	FIT3159 Computer architecture	Level 2 or 3 elective or engineering technical elective	Level 3 or 4 software engineering technical elective	**Malaysia students enrol in** ENG0002 Industrial training (0 credit points)
4	Sem 2 July		FIT4701 Final year software engineering project A	Level 3, 4 or 5 software engineering technical elective	Level 3 or 4 software engineering technical elective	**Clayton students enrol in** ENG0001 Continuous Professional Development (0 credit points)
	Sem 1 Feb	FIT4165 Computer networks	FIT4702 Final year software engineering project B	Level 3, 4 or 5 software engineering technical elective	Level 4 or 5 software engineering core elective	

Notes:

- TECHNICAL ELECTIVES LIST is located on the Faculty's current student course information webpage
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- No more than 60 credit points of level 1 units can be credited to the Bachelor of Engineering (Honours).
- No more than 12 credit points of level 5 units can be undertaken in the Bachelor of Engineering (Honours). The level 5 units can be undertaken only in the final year of study.
- Engineering minors are not available within the Software engineering specialisation.
- You are required to complete either the Continuous Professional Development (if you studying in Australia) or Industrial training (if you are studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage if you are in Clayton.

MONASH University

Course progression map for 2023 commencing students – **JULY ADMISSION [For Direct entry]**

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E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering – *Industry-based Learning*

Year	Period	Units				
1	Sem 2 July Sem 1 Feb	**Common first year**				
2	Sem 2 July	FIT2085 Introduction to computer science for engineers	FIT2099 Object-oriented design and implementation	FIT2101 Software engineering process and management	FIT2107 Software quality and testing	
	Sem 1 Feb	FIT3170 Software engineering practice (12 points)	MAT1830 Discrete mathematics for computer science	FIT3077 Software engineering: Architecture and design	FIT2004 Algorithms and data structures	
3	Sem 2 July		FIT2100 Operating systems	FIT3171 Databases	Level 1, 2 or 3 elective or engineering technical elective	Level 2 or 3 elective or engineering technical elective
	Sem 1 Feb	FIT4701 Final year software engineering project A	FIT3159 Computer architecture	Level 3 or 4 software engineering technical elective	Level 3 or 4 software engineering technical elective	**Malaysia students enrol in** ENG0002 Industrial training (0 credit points)
4	Sem 2 July	FIT4042 Industry based learning (18 points)			*See footnote	**Clayton students enrol in** ENG0001 Continuous Professional Development (0 credit points)
	Sem 1 Feb	FIT4702 Final year software engineering project B	FIT4165 Computer networks	Level 3, 4 or 5 software engineering technical elective	Level 3, 4 or 5 software engineering technical elective	

NOTE:

- TECHNICAL ELECTIVES LIST is located on the Faculty's current student course information webpage
- If you have completed a unit in First Year (eg MAT1830 or FIT2085) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core with another unit chosen from the software engineering technical electives list or from one of the engineering minors. The replacement unit must be at the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
  - No more than 60 credit points of level 1 units can be credited to the Bachelor of Engineering (Honours).
  - No more than 12 credit points of level 5 units can be undertaken in the Bachelor of Engineering (Honours). The level 5 units can be undertaken only in the final year of study.
- Engineering minors are not available within the Software engineering specialisation.
- Depending on placement location when you undertake FIT4042, you may have to either overload a semester or undertake a summer unit in order to complete your course on time. Only Australian residents are allowed to extend an additional semester.
- You are required to complete the Continuous Professional Development (if studying in Australia) or Industrial training (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage if you are in Clayton.

MONASH University

Course progression map for 2023 commencing students – **JULY ADMISSION [For Monash College pathway]**

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E3001 Bachelor of Engineering (Honours) — Specialisation – Software engineering

Year	Sem	Units				
1	Sem 2 July	Common First Year				
	Sem 1 Feb					
2	Sem 2 July	FIT2085 Introduction to computer science for engineers	FIT2099 Object-oriented design and implementation	FIT2101 Software engineering process and management	FIT2107 Software quality and testing	
	Sem 1 Feb	FIT3170 Software engineering practice (12 points)	MAT1830 Discrete mathematics for computer science	FIT3077 Software engineering: Architecture and design	FIT2004 Algorithms and data structures	
3	Sem 2 July		FIT2100 Operating systems	FIT3171 Databases	Level 1, 2 or 3 elective or engineering technical elective	
	Sem 1 Feb	FIT4002 Software engineering industry experience studio project (12 points)	FIT3159 Computer architecture	Level 2 or 3 elective or engineering technical elective	Level 3 or 4 software engineering technical elective	**Malaysia students enrol in** ENG0002 Industrial training (0 credit points)
4	Sem 2 July		FIT4701 Final year software engineering project A	Level 4 or 5 software engineering core elective	Level 3, 4 or 5 software engineering technical elective	**Clayton students enrol in** ENG0001 Continuous Professional Development (0 credit points)
	Sem 1 Feb	FIT4165 Computer networks	FIT4702 Final year software engineering project B	Level 3 or 4 software engineering technical elective	Level 3, 4 or 5 software engineering technical elective	

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Course progression map for 2023 commencing students – **JULY ADMISSION [For Monash College pathway]**

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E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering – *Industry-based Learning*

Year	Period	Units				
1	Sem 2 July Sem 1 Feb	**Common first year**				
2	Sem 2 July	FIT2085 Introduction to computer science for engineers	FIT2099 Object-oriented design and implementation	FIT2101 Software engineering process and management	FIT2107 Software quality and testing	
	Sem 1 Feb	FIT3170 Software engineering practice (12 points)	MAT1830 Discrete mathematics for computer science	FIT3077 Software engineering: Architecture and design	FIT2004 Algorithms and data structures	
3	Sem 2 July		FIT2100 Operating systems	FIT3171 Databases	Level 2 or 3 elective or engineering technical elective	Level 1, 2 or 3 elective or engineering technical elective
	Sem 1 Feb	FIT4701 Final year software engineering project A	FIT3159 Computer architecture	Level 3 or 4 software engineering technical elective	Level 3, 4 or 5 software engineering technical elective	**Malaysia students enrol in** ENG0002 Industrial training (0 credit points)
4	Sem 2 July	FIT4042 Industry based learning (18 points)			**See footnote*	**Clayton students enrol in** ENG0001 Continuous Professional Development (0 credit points)
	Sem 1 Feb	FIT4702 Final year software engineering project B	FIT4165 Computer networks	Level 3 or 4 software engineering technical elective	Level 3, 4 or 5 software engineering technical elective	

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