

Course progression map for 2022 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: 12 December 2023

E3001 Bachelor of Engineering (Honours) Common first year

Specialisation – Biomedical Engineering – *Biomedical devices stream*

If no foundation units are required

Year	Period	Units			
1	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <small>Required: ENG1090 *</small>	ENG1014 Engineering numerical analysis <small>Corequisite: ENG1005</small>	Elective unit ^
	Sem 1 Feb	ENG1012 Engineering design	ENG1013 Engineering smart systems	BMS1021 Cells, tissues and organisms +	Elective unit ^

If you need to enrol in foundation maths (ENG1090)

1	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	MTH1020 Analysis of change * <small>This unit is in lieu of ENG1090 (which has only Sem 1 and Oct offerings)</small>	Elective unit ^
	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering mathematics <small>Required: ENG1090 *</small>	ENG1014 Engineering numerical analysis <small>Corequisite: ENG1005</small>	BMS1021 Cells, tissues and organisms +

If you need to enrol in foundation physics (PHS1001)

1	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	ENG1005 Engineering mathematics <small>Required: ENG1090 *</small>	Elective unit ^
	Sem 1 Feb	ENG1011 Engineering methods	PHS1001 Foundation physics* <small>Required: ENG1090 *</small>	BMS1021 Cells, tissues and organisms +	ENG1014 Engineering numerical analysis <small>Corequisite: ENG1005</small>

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](#).
- +BMS1021 is a core unit in the Biomedical Engineering specialisation. You must complete it as the First Year engineering technical elective unit.
- ^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.
- Engineering minors are not available within the biomedical engineering specialisation.
- 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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E3001 Bachelor of Engineering (Honours)

Specialisation – Biomedical Engineering – *Biomedical devices stream*

Year	Period	Units			
1	Sem 2 July	Common first year			
	Sem 1 Feb				
2	Sem 2 July	ECE2111 Signals and systems	CHE2161 Mechanics of fluids	MEC3602 Biomedical microsystems	ENG2005 Advanced engineering mathematics
	Sem 1 Feb	MCB2011 Molecular biology and the cell	ECE2071 Computer organisation and programming	PHY2011 Neuroscience of communication, sensory and control systems	DEV2011 Early human development from cells to tissues
3	Sem 2 July	MCB2022 The dynamic cell	ECE4087 Medical technology innovation	PHY2042 Body systems physiology	DEV2022 Human anatomy and development: Tissues and body systems
	Sem 1 Feb	ECE2131 Electrical circuits	MTE3204 Biomaterials 1	MEC3601 Mechanics for biomedical engineering	ENG3111 Sensory and cognitive neuroscience Replace with PHY3111 in 2024
4	Sem 2 July	ENG4701 Final year project A	ENG4105 Biomedical engineering integrated design	ECE4179 Neural networks and deep learning	ECE4081 Medical instrumentation
	Sem 1 Feb	ENG4702 Final year project B	MEC4404 Professional practice or ECE4099 Professional practice	MEC4601 Implantable devices	TRC3500 Sensors and artificial perception

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

Note:

- Care should be taken to ensure units are maintained in sequence.
- Engineering minors are not available within the Biomedical engineering specialisation.
- 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](#).