

## Course progression map for 2021 commencing students – OCTOBER 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](#). Please note that the map is subject to updates. Update version: 12 December 2023

### E3001 Bachelor of Engineering (Honours)

### Specialisation – Biomedical Engineering – *Biomedical devices stream*

#### Common first year

#### If no foundation units are required

Year	Period	Units			
1	October	<a href="#">ENG1001</a> Engineering design: Lighter, faster, stronger	<a href="#">ENG1005</a> Engineering mathematics <i>Required: ENG1090 *</i>	<a href="#">ENG1060</a> Computing for engineers <i>Corequisite: ENG1005</i>	<a href="#">ENG1003</a> Engineering mobile apps
	Sem 1 Feb	<a href="#">ENG1002</a> Engineering design: Cleaner, safer, smarter	<a href="#">BMS1021</a> Cells, tissues and organisms	<a href="#">Elective unit</a>	<a href="#">Elective unit</a>

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

1	October	<a href="#">ENG1001</a> Engineering design: Lighter, faster, stronger	<a href="#">ENG1090</a> Foundation mathematics*	<a href="#">ENG1003</a> Engineering mobile apps	<a href="#">Elective unit</a>
	Sem 1 Feb	<a href="#">ENG1002</a> Engineering design: Cleaner, safer, smarter	<a href="#">ENG1005</a> Engineering mathematics <i>Required: ENG1090 *</i>	<a href="#">ENG1014</a> Engineering numerical analysis <i>Corequisite: ENG1005</i>	<a href="#">BMS1021</a> Cells, tissues and organisms

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

1	October	<a href="#">ENG1003</a> Engineering mobile apps	<a href="#">ENG1005</a> Engineering mathematics <i>Required: ENG1090 *</i>	<a href="#">ENG1060</a> Computing for engineers <i>Corequisite: ENG1005</i>	<a href="#">Elective unit</a>
	Sem 1 Feb	<a href="#">ENG1001</a> Engineering design: Lighter, faster, stronger	<a href="#">ENG1002</a> Engineering design: Cleaner, safer, smarter	<a href="#">PHS1001</a> Foundation physics* <i>Required: ENG1090 *</i>	<a href="#">BMS1021</a> Cells, tissues and organisms

#### Notes:

- 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.

#### NOTE

#### \* FOUNDATION UNITS

You must 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](#).

#### ELECTIVES

BMS1021 is a core unit in the Biomedical Engineering specialisation. It takes the place of the First Year engineering technical elective.

#### Engineering elective on offer in October is

[ENG1021](#) Spatial Communication in Engineering

The free elective unit(s) may be chosen either from the [engineering technical electives list](#) or from other faculties within the University, provided you meet the unit prerequisites. Please refer to the [Handbook](#) for units available and seek course advice if unsure.

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