

Course progression maps for 2025 commencing students

This progression map provides advice on the optimal sequencing of units and guidance on planning unit enrolment for each semester of study in conjunction with the required units outlined in the course 'Requirements' section of the [Handbook](#). Please note that the map may be updated to reflect changes to course requirements. Be sure to review it for the latest information before re-enrolling. Last updated: 7 October 2025

E3012 Bachelor of Engineering (Honours) and Bachelor of Design

Engineering Common First Year

You do not have VCE Units 3 & 4 Specialist Maths >30 study score <u>and</u> VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation mathematics (ENG1090) and Foundation physics (PHS1001)					
Year	Sem	Units			
1	Sem 1 Feb	ENG1090 Foundation mathematics *	DGN1000 Design studio 1 (12 cps)		BLK1000 Indigenous Australian creative practice and ways of knowing
	Sem 2 July	ENG1012 Engineering design	IDN1002 Industrial design studio 2 (12 cps)		TDN1002 Design and the avant-garde
2	Sem 1 Feb	DWG1201 Drawing: Introduction	TDN2001 Sociologies of design	IDN2001 Industrial design studio 3 (12 cps)	
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis <i>Corequisite: ENG1005</i>	ENG1013 Engineering smart systems
If you require two foundation units, you will need to take the remaining core unit PHS1001 Foundation physics in Year 2 (Semester 1) as an overload. This increases the total credit points needed for the double degree by 6 points. You cannot swap the semesters of any of these units.					

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1	Sem 1 Feb	ENG1090 Foundation mathematics *	DGN1000 Design studio 1 (12 cps)		BLK1000 Indigenous Australian creative practice and ways of knowing
	Sem 2 July	ENG1012 Engineering design	IDN1002 Industrial design studio 2 (12 cps)		TDN1002 Design and the avant-garde
2	Sem 1 Feb	DWG1201 Drawing: Introduction	TDN2001 Sociologies of design	IDN2001 Industrial design studio 3 (12 cps)	
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis <i>Corequisite: ENG1005</i>	ENG1013 Engineering smart systems

You do not have VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation physics (PHS1001)					
1	Sem 1 Feb	PHS1001 Foundation physics *	DGN1000 Design studio 1 (12 cps)		BLK1000 Indigenous Australian creative practice and ways of knowing
	Sem 2 July	ENG1012 Engineering design	IDN1002 Industrial design studio 2 (12 cps)		TDN1002 Design and the avant-garde
2	Sem 1 Feb	DWG1201 Drawing: Introduction	TDN2001 Sociologies of design	IDN2001 Industrial design studio 3 (12 cps)	
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering Mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis <i>Corequisite: ENG1005</i>	ENG1013 Engineering smart systems

You have completed VCE Units 3 & 4 Physics >25 study score <u>and</u> VCE Units 3 and 4 Specialist Maths >30 study score: No foundation units are required					
1	Sem 1 Feb	ENG1013 Engineering smart systems	DGN1000 Design studio 1 (12 cps)		BLK1000 Indigenous Australian creative practice and ways of knowing
	Sem 2 July	ENG1012 Engineering design	IDN1002 Industrial design studio 2 (12 cps)		TDN1002 Design and the avant-garde
2	Sem 1 Feb	DWG1201 Drawing: Introduction	TDN2001 Sociologies of design	IDN2001 Industrial design studio 3 (12 cps)	
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis <i>Corequisite: ENG1005</i>	First Year engineering breadth study

NOTE:

* 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**.

It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.

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.

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E3012 Bachelor of Engineering (Honours) and Bachelor of Design

Engineering specialisations - Mechanical engineering

Design specialisation - Industrial design

Year 1 Semester 1 February	Engineering Common First Year units	DGN1000 Design studio 1		BLK1000 Indigenous Australian creative practice and ways of knowing	OHS1000 Introduction to art and design health and safety (0 pts)
Year 1 Semester 2 July		IDN1002 Industrial design studio 2		TDN1002 Design and the avant-garde	
Year 2 Semester 1 February	DWG1201 Drawing: Introduction	TDN2001 Sociologies of design	IDN2001 Industrial design studio 3		If two foundation units are required then overload is required for PHS1001 Foundation physics
Year 2 Semester 2 July	Engineering Common First Year units				
Year 3 Semester 1 February	MMA2002 Solid mechanics 1 Replacing MEC2403	MMA2001 Design 1 Replacing MEC2402	ENG2005 Advanced engineering mathematics	TDN3001 Research for design	
Year 3 Semester 2 July	MMA2004 Dynamics 1 Replacing MEC2401	MMA2003 Thermofluids 1 Replacing combined MEC2404, MEC2405	MMA3001 Numerical methods and machine learning Replacing MEC3456	MEC3416 Mechanical design 2	
Year 4 Semester 1 February	MEC3455 Solid mechanics 2	MEC3001 Material properties and selection	IDN3001 Industrial design studio 4		
Year 4 Semester 2 July	MMA2005 Modelling and control Replacing MEC3457	TDN3002 Design strategy and professional practice	IDN3002 Industrial design studio 5		
Year 5 Semester 1 February	ENG4701 Final year project A	MEC4408 Thermodynamics 2 and heat transfer	MEC3451 Fluid Mechanics 2	Complete one Professional Practice domain unit	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	MMA4001 Finite element analysis Replacing MEC4426	MEC3453 Mechanical dynamics 2	MEC4407 Mechanical design 3	

Mechanical engineering
Industrial design

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- Engineering minors are not available in the Engineering double degree courses.
- MEC2404** - If you have completed this unit as a First Year breadth study unit, it will count towards your mechanical engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- 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](#).