

Recommended Enrolment Plans

For Students Commencing the Bachelor of Engineering (Hons) and Bachelor of Engineering (Hons)/Master of Engineering

Valid for **Semester 2, 2025**

This document provides course selection information and recommended enrolment plans for students commencing the Bachelor of Engineering (Hons) [BE(Hons)] and integrated Bachelor of Engineering (Hons)/Master of Engineering [BE(Hons)/ME] in Semester 2, 2025. This is intended to be used in conjunction with the resources provided at:

- [Bachelor of Engineering \(Hons\)](#)
- [Bachelor of Engineering \(Hons\)/Master of Engineering](#)

If you are enrolling in a **Bachelor of Engineering (Hons) dual degree**, please refer to the [Recommended Enrolment Plans for Students Commencing the Bachelor of Engineering \(Hons\) dual degrees](#).

Want to know your Program and Course requirements?

For the **Bachelor of Engineering (Honours)** full program and course requirements, [click here](#). Make sure to check your program's rules to ensure you are compliant with requirements.

Not sure which engineering specialisation you want to do?

No worries! You can do the 'Flexible First Year' option that allows you to do courses related to each specialisation, and then choose your specialisation at the end of first year. You don't need to decide whether you want to do a Major or Minor until the end of the second year of your program.

Already know which engineering specialisation you want to do?

If you already know which engineering specialisation you want to do, you can focus your courses from first year. An enrolment plan is provided for each of the six specialisations for those who have, and who have not, completed High School Specialist Mathematics (or equivalent).

You will also see that some specialisations have space for electives. There are footnotes suggesting some courses you may consider in these elective slots. In particular, there may be second year courses you can complete in first year to allow you to immerse yourself in your chosen discipline ("Accelerate Electives"). In addition, some Majors and Minors have courses you can complete in first year.

Need help? Make an Academic Advising Appointment.

If after reviewing these materials you need some help to choose your courses, you can [make an academic advising appointment](#).

What courses do you need to do?

		Flexible First Year	Chemical	Civil	Electrical	Mechanical	Mechatronic	Software
Core	ENGG1100 Professional Engineering	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ENGG1001 or CSSE1001 “Programming”	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MATH1051 or MATH1071	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MATH1052 or MATH1072	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Specialisation	ENGG1300 Intro to Electrical Systems	Yes ¹			Yes	Yes	Yes	Yes
	ENGG1500 Thermodynamics	Yes ¹	Yes			Yes		
	ENGG1700 Statics and Materials	Yes ¹		Yes		Yes	Yes	
	Other Courses		CHEM1100					MATH1061 INFS1200 ²
High School Courses or UQ Equivalents	High School Specialist Mathematics or MATH1050	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	High School Chemistry or CHEM1090	See discipline info to the right	Yes	- ³	- ⁴	Yes		
	High School Physics or PHYS1171			Yes	Yes	Yes	Yes	

¹ See the next page for some limitations

² MATH1061 and/or INFS1200 can be completed in 2nd year

³ High School Chemistry or CHEM1090 is required in civil engineering if you plan on doing the Major in Environmental Engineering

⁴ High School Chemistry or CHEM1090 is required in electrical engineering if you plan on doing the Major in Biomedical Engineering

Flexible First Year - ENGG1300, ENGG1500 and ENGG1700

All specialisations have space to allow for at least **TWO** of ENGG1300, ENGG1500 or ENGG1700

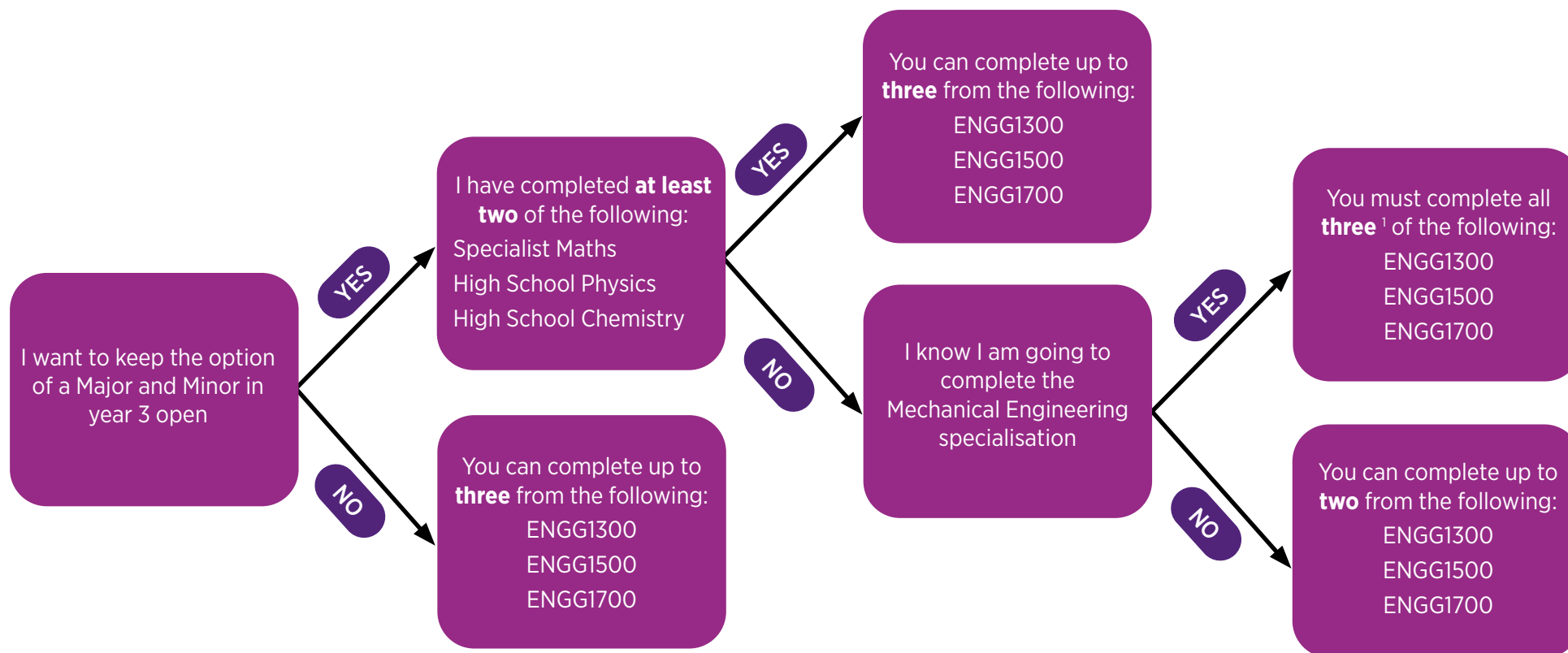
If you want to do all **THREE** then in every specialisation (except Mechanical Engineering) one of ENGG1300, ENGG1500 or ENGG1700 **must count as an Elective.**

Mechanical Engineering is the only specialisation that requires all three of ENGG1300, ENGG1500 and ENGG1700

Your available choices will depend on which of the following groups you belong to and whether **you want to keep the option of completing a Major or Minor open.**

- a) You **have completed Specialist Maths** AND **have completed BOTH** High School Physics AND High School Chemistry
- b) You **have completed Specialist Maths** AND **have completed ONE** of High School Physics OR High School Chemistry
- c) You **have NOT completed Specialist Maths** AND **have completed BOTH** High School Physics AND High School Chemistry
- d) You **have NOT completed Specialist Maths** and **have completed ONE** of High School Physics OR High School Chemistry

Now that you know which group you belong to and you have thought about whether you want to keep a major or minor option open, **work through the decision flow chart on the next page** to confirm if you can do two or three of: **ENGG1300, ENGG1500, and/or ENGG1700** as part of a **Flexible First Year.**



¹ Suggest ENGG1500 and ENGG1700 completed in year 1 and ENGG1300 in year 2

Selecting your Semester 1 Mathematics Course

All students should enrol in one of **MATH1050**, **MATH1051** or **MATH1071** in their first semester of the BE(Hons). Figure 1 below provides a guide to identifying which course to enrol in based on the mathematics you completed at high school in Queensland (or interstate/international equivalent).

- Where the appropriate course is MATH1050, refer to the plans below labelled “Not Completed Specialist Mathematics with a grade of C or above”.
- Where the appropriate course is MATH1051, refer to the plans below labelled “Completed Specialist Mathematics with a grade of C or above”.
- Where the most appropriate course is MATH1071, refer to the plans below labelled “Completed Specialist Mathematics with a grade of C or above”; and substitute MATH1071 in the place of MATH1051 (similarly, if you choose to do MATH1072 in semester 2, substitute this in the place of MATH1052).

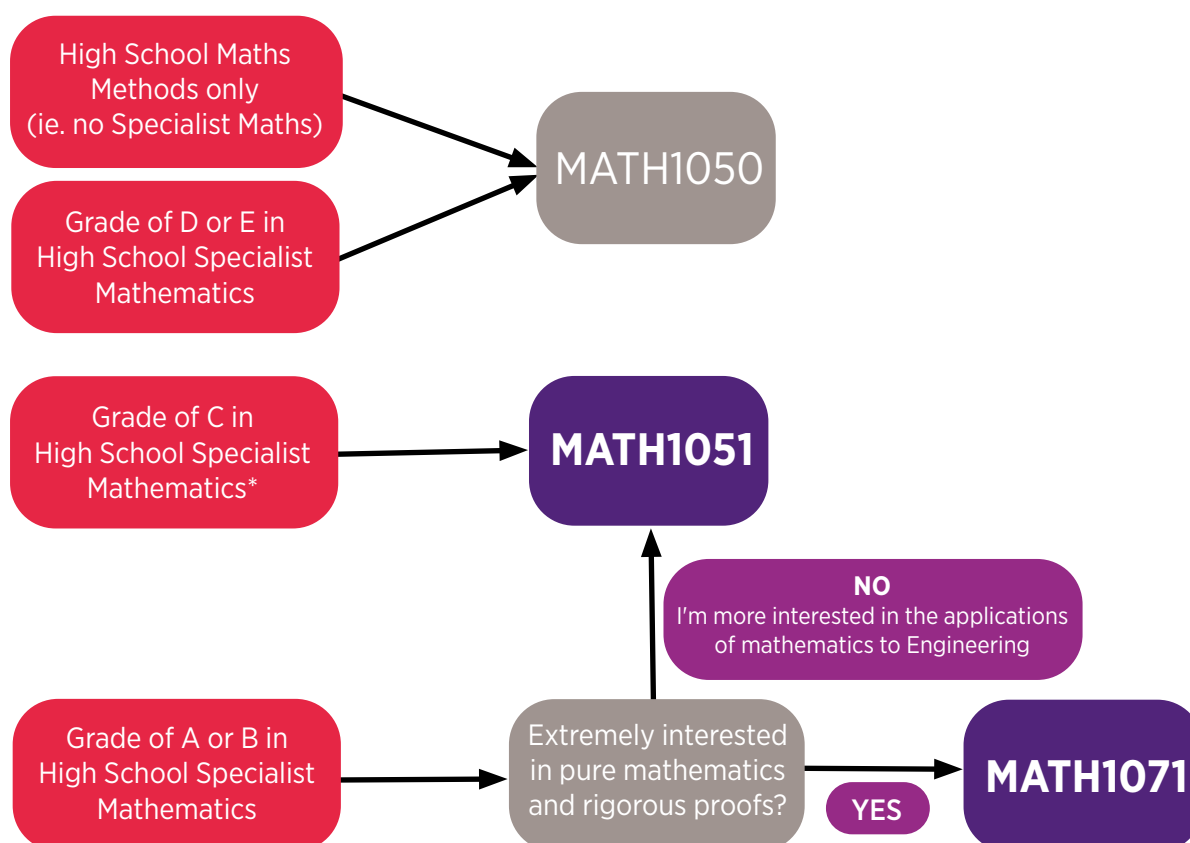


Figure 1 Guide to selecting your mathematics course in the first semester of the BE(Hons) based on high school mathematics, grade and interest.

* Students with a Grade of C in High School Specialist Mathematics can choose to enrol in MATH1050 if they are not confident in their mathematics ability (i.e., it's a long time since you completed high school). If this applies to you, and you are finding MATH1051 difficult, you can change your enrolment to MATH1050 during the first two weeks of semester.

Selecting your Programming Course (ENGG1001 or CSSE1001)

ENGG1001 Programming for Engineers (Sem 1 & Sem 2)

OR

CSSE1001 Introduction to Software Engineering (Sem 1 & Sem 2)

All students are required to complete a programming course in their first year. Both ENGG1001 and CSSE1001 teach foundations of programming in Python. These courses are considered equivalent, and you can proceed to any specialisation with either course.

- **CSSE1001** teaches programming in a computing context. It is recommended if you are intending on continuing to Specialisations in **Electrical or Software Engineering**.
- **ENGG1001** teaches programming in the context of engineering modelling problems. It is recommended if you are intending on continuing to Specialisations in **Civil, Chemical or Mechanical Engineering**.
- If you are intending on continuing to a Specialisation in **Mechatronic Engineering or are in the Flexible First Year**, choose whichever course interests you the most.

Which enrolment plan should I follow if I'm in the BE(Hons)/ME?

Students in the BE(Hons)/ME will choose a "Field of Study" rather than a Specialisation (with optional majors), and these use slightly different naming conventions. The table below indicates which enrolment plan you should follow in first year based on your intended field of study.

Available Fields of Study	In first year, follow the recommended enrolment plan for:
Not Sure	Flexible First Year
Chemical Engineering	Specialisation in Chemical Engineering ¹
Chemical & Biomedical Engineering	Specialisation in Chemical Engineering with a Major in Biomedical Engineering
Chemical & Bioprocess Engineering	Specialisation in Chemical Engineering with a Major in Bioprocess Engineering
Chemical & Environmental Engineering	Specialisation in Chemical Engineering with a Major in Environmental Engineering
Chemical & Metallurgical Engineering	Specialisation in Chemical Engineering with a Major in Metallurgical Engineering
Civil Engineering	Specialisation in Civil Engineering ²
Civil & Environmental Engineering	Specialisation in Civil Engineering with a Major in Environmental Engineering
Electrical Engineering	Specialisation in Electrical Engineering
Electrical & Biomedical Engineering	Specialisation in Electrical Engineering with a Major in Biomedical Engineering
Electrical and Computer Engineering	Specialisation in Electrical Engineering with a Major in Computer Engineering
Mechanical Engineering	Specialisation in Mechanical Engineering ³
Mechanical & Aerospace Engineering	Specialisation in Mechanical Engineering with a Major in Aerospace Engineering
Mechanical & Materials Engineering	Specialisation in Mechanical Engineering with a Major in Materials Engineering
Mechatronic Engineering	Specialisation in Mechatronic Engineering ⁴
Software Engineering	Specialisation in Software Engineering ⁵

¹ Follow this study plan for all other majors associated with the Chemical Engineering Specialisation

² Follow this study plan for all other majors associated with the Civil Engineering Specialisation

³ Follow this study plan for all other majors associated with the Mechanical Engineering Specialisation

⁴ Follow this study plan for all other majors associated with the Mechatronic Engineering Specialisation

⁵ Follow this study plan for all other majors associated with the Software Engineering Specialisation

Bachelor of Engineering (Honours) Flexible First Year

Recommended Enrolment Plan



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Valid for **Semester 2, 2025**

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Prep Courses		

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	MATH1051	ENGG1300	ENGG1700
	Sem 1 Feb	(ENGG or CSSE)1001	MATH1052	ENGG1500	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	(ENGG or CSSE)1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1700	ENGG1500	Elective

Not Completed High School Specialist Mathematics and Physics.

Y1	Sem 2 July	ENGG1100	(ENGG or CSSE)1001	MATH1050	PHYS1171
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1300	ENGG1700	ENGG1500

Not Completed High School Specialist Mathematics and Chemistry.

Y1	Sem 2 July	ENGG1100	(ENGG or CSSE)1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	CHEM1090	ENGG1700	ENGG1500

- **No High School Physics?** Do PHYS1171 instead of ENGG1300 in Sem 2 (July) and do ENGG1300 in Sem 1 (Feb).
- **No High School Chemistry?** Do CHEM1090 in Sem 1 (Feb).
- **No High School Chemistry and considering Chemical Engineering?** [Make an academic advising appointment.](#)
- **If you are required to complete MATH1050,** completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Chemical Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	MATH1051	CHEM1100	Elective
	Sem 1 Feb	ENGG1001	MATH1052	ENGG1500	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	ENGG1001	MATH1050	CHEM1100
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1500	Elective	Elective

- **No High School Chemistry?** [Make an academic advising appointment](#). You will need to do CHEM1090 in Sem 1 (Feb), and delay CHEM1100 until year 2.
- **Major in Biomedical or Bioprocess Engineering?** Doing BIOE1001 in Sem 1 (Feb) may give you greater flexibility later in your degree.
- **Major in Materials Engineering?** Doing ENGG1700 in Sem 1 (Feb) may give you more flexibility later in your degree.
- **If you are required to complete MATH1050**, completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Civil Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	MATH1051	ENGG1700	Elective
	Sem 1 Feb	ENGG1001	MATH1052	Elective	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	ENGG1001	MATH1050	Elective
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1700	Elective	Elective

- **No High School Physics?** Taking PHYS1171 in Sem 2 (July) is recommended.
- **Major in Environmental Engineering?**
 - If you haven't completed High School Chemistry, do CHEM1090 in Sem 1 (Feb).
 - Doing ENGG1500 and/or EARTH1501 (Sem 1 [Feb] only) may give you flexibility later in your degree.
- **Major in Geotechnical Engineering?** Doing EARTH1501 (Sem 1 [Feb] only) may give you greater flexibility later in your degree.
- **If you are required to complete MATH1050**, completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Accelerate Electives:	CIVL2135 (Semester 1 only)			
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Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Electrical Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	CSSE1001	MATH1051	ENGG1300
	Sem 1 Feb	MATH1052	Elective	Elective	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	CSSE1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	Elective	Elective	Elective

- **No High School Physics?** Do PHYS1171 instead of ENGG1300 in Sem 2 (July) and do ENGG1300 in Sem 1 (Feb).
- **Major in Biomedical Engineering?** Doing BIOE1001 in Sem 1 (Feb) may give you greater flexibility later in your degree.
- **Major in Computer Engineering?** Doing CSSE2002 and/or CSSE2010* may give you greater flexibility later in your degree.
- **If you are required to complete MATH1050**, completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Accelerate Electives:	CSSE2002 (Sem 1 and 2)	CSSE2010 (Sem 1 and 2)		
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- CSSE2010 and CSSE2002 are available in both Sem 1 (Feb) and Sem 2 (July), they must be taken after CSSE1001 (or ENGG1001) has been completed.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Mechanical Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	MATH1051	ENGG1300	ENGG1500
	Sem 1 Feb	ENGG1001	MATH1052	ENGG1700	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	ENGG1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1500	ENGG1700	Elective

- **No High School Physics?** Do PHYS1171 instead of ENGG1300 in Sem 2 (July) and do ENGG1300 in Sem 1 (Feb).
- **No High School Chemistry?** Do CHEM1090 in Sem 1 (Feb).
- **Major in Computer Engineering?** Doing CSSE2002 and/or CSSE2010* may give you greater flexibility later in your degree.
- **Major in Biomedical Engineering?** Doing BIOE1001 in Sem 1 (Feb) may give you greater flexibility later in your degree.
- **If you are required to complete MATH1050,** completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Mechatronic Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	ENGG1001 or CSSE1001	MATH1051	ENGG1300
	Sem 1 Feb	MATH1052	ENGG1700	Elective	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	ENGG1001 or CSSE1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	ENGG1700	Elective	Elective

- **No High School Physics?** Do PHYS1171 instead of ENGG1300 in Sem 2 (July) and do ENGG1300 in Sem 1 (Feb).
- **Major in Computer Engineering?** Doing CSSE2002 and/or CSSE2010* may give you greater flexibility later in your degree.
- **If you are required to complete MATH1050**, completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Accelerate Electives:	CSSE2002 (Sem 1 and 2)	CSSE2010 (Sem 1 and 2)		
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- CSSE2010 and CSSE2002 are available in both Sem 1 (Feb) and Sem 2 (July), they must be taken after ENGG1001 (or CSSE1001) has been completed.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025

Bachelor of Engineering (Honours) Specialisation in Software Engineering

Recommended Enrolment Plan

Valid for **Semester 2, 2025**



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The table below shows the required:

Core Courses

Specialisation

Engineering Electives

Prep Courses

Completed High School Specialist Mathematics with a grade of C or above, and Physics and Chemistry.

Y1	Sem 2 July	ENGG1100	CSSE1001	MATH1051	ENGG1300
	Sem 1 Feb	MATH1052	MATH1061	INSF1200	Elective

Not Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 2 July	ENGG1100	CSSE1001	MATH1050	ENGG1300
	Summer Semester	MATH1051			
	Sem 1 Feb	MATH1052	MATH1061	INSF1200	Elective

- **Major in Computer Engineering?** Doing CSSE2002 and/or CSSE2010* may give you greater flexibility later in your degree.
- **If you are required to complete MATH1050**, completing MATH1051 during Summer Semester will provide greater flexibility in your program after year 1. If you are unable to complete MATH1051 during summer semester, [make an academic advising appointment](#) during your first semester to plan your program.

Accelerate Electives:	CSSE2002 (Sem 1 and 2)	CSSE2010 (Sem 1 and 2)		
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- CSSE2010 and CSSE2002 are available in both Sem 1 (Feb) and Sem 2 (July), they must be taken after CSSE1001 (or ENGG1001) has been completed.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

Study plan last modified: June, 2025