

# Recommended Enrolment Plans

## For Students Commencing Bachelor of Engineering (Hons) Dual Degrees

Valid for Semester 1, 2025

This document provides course selection information and recommended enrolment plans for students commencing the Bachelor of Engineering (Hons) [BE(Hons)] Dual Degree in Semester 1, 2025. This is intended to be used in conjunction with the resources provided at:

- [Engineering, Architecture and Information Technology Programs & Courses](#)
- [Bachelor of Engineering \(Honours\) Dual Degrees video](#)

### Not sure which engineering specialisation you want to do?

Flexible First Year might help!

The 'Flexible First Year' option allows you to do courses related to a range of specialisations, to then choose your specialisation at the end of first year.

Remember - *You don't need to decide whether you want to do a Major or Minor (if your dual degree allows it) until the end of second year of your program.*

As such, it is highly recommended that you [make an academic advising appointment](#) to assist you to choose your courses for your first semester.

### 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; and you will see footnotes suggesting some courses you may consider in these elective slots.

**If you did not complete Specialist Mathematics or need to catch-up on High School Physics or Chemistry in a BE(Hons)/Dual program, then (in most cases) you will need to complete additional courses as you have no room for general electives.**

### Need help? Make an Academic Advising Appointment.

If after reviewing these materials you need some help to choose your courses, [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 <sup>1</sup>			Yes	Yes	Yes	Yes
	ENGG1500 Thermodynamics	Yes <sup>1</sup>	Yes			Yes		
	ENGG1700 Statics and Materials	Yes <sup>1</sup>		Yes		Yes	Yes	
	Other Courses		CHEM1100					MATH1061 INFS1200 <sup>2</sup>
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	- <sup>3</sup>	- <sup>4</sup>	Yes		
	High School Physics or PHYS1171	See discipline info to the right		Yes	Yes	Yes	Yes	

<sup>1</sup> See the next page for some limitations

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

If your dual permits a major:

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

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

## Flexible First Year - Dual Degree Options

*Careful choices still need to be made.*

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 or ENGG1500 or ENGG1700 **must count as a General Elective**.

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

**As a dual degree student, you do not have space for any general electives.**

### So what does this mean?

For all specialisations **except Mechanical Engineering** – dual degree students should complete a maximum of **TWO** courses from ENGG1300, ENGG1500 or ENGG1700.

For all students who are intending to follow the Mechanical Engineering specialisations

- Dual degree students should complete ENGG1500 and ENGG1700 in year 1
- ENGG1300 should be completed in Year 2

[Make an academic advising appointment](#) for support.

### Recommendations for choosing between ENGG1300 ENGG1500 and ENGG1700

Specialisation	ENGG1300	ENGG1500	ENGG1700
CHEMICAL		Required	<i>Suggested</i> <sup>1</sup>
CIVIL		<i>Suggested</i> <sup>2</sup>	Required
ELECTRICAL	Required		<i>Suggested</i> <sup>3</sup>
MECHANICAL	Required <sup>4</sup>	Required	Required
MECHATRONIC	Required		Required
SOFTWARE	Required	<i>Either Suggested</i>	

<sup>1</sup> Completing ENGG1700 makes taking the Biomedical and Materials Engineering Majors in year 3 a little easier.

<sup>2</sup> Completing ENGG1500 makes taking the Environmental Engineering Major in year 3 a little easier.

<sup>3</sup> Completing ENGG1700 makes taking the Biomedical Engineering Major in year 3 a little easier.

<sup>4</sup> If you are going to study Mechanical Engineering - RECOMMEND delaying ENGG1300 to year 2.

## Selecting Your Courses for First Year BE(Hons) Dual Degrees

The priority at the moment is choosing sensible courses for your **first semester**.

### Your first semester - Semester 2 2024 (July)

ENGG1100 <sup>1</sup>	MATH1050 or MATH1051 or MATH1071	ENGG1300 or ENGG1500 or ENGG1700 or ENGG1001 or CSSE1001 or CHEM1100 or High School Catch-up	Dual Degree Course  <a href="#">Make an academic advising appointment.</a>
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<sup>1</sup> If ENGG1100 has reached capacity, substitute with ENGG1001 and complete ENGG1100 in your second semester

**You MUST enrol in a course that contributes to the dual degree in every semester.**

In many cases, your first semester (things you are interested in) will allow you to then focus (or maintain breadth) in second semester.

### Articulation or Advanced Standing students

If you are an articulation student, or have credit for prior study, you must follow your individual study plan.

## 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).

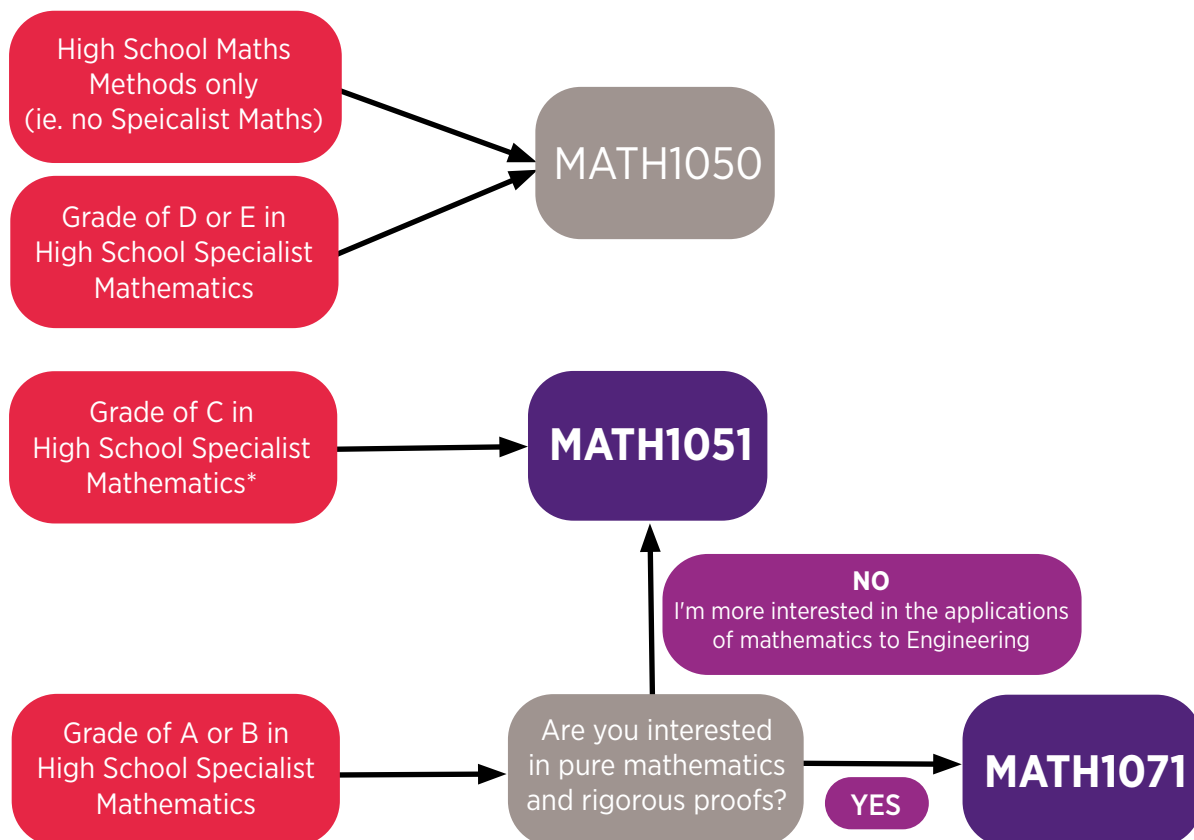


Figure 1 Guide to selecting your mathematics course in the first semester of the BE(Hons) based on high school mathematics, grade and interest.

\* 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)**

### Which one to choose?

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; or are in the Flexible First Year**.
- If you are intending on continuing to a Specialisation in **Mechatronic Engineering**, choose whichever course interests you the most.

# Bachelor of Engineering (Honours)

## Dual Degree with Specialisation in Chemical Engineering

### Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	MATH1050	ENGG1500	Dual Degree Course
	Sem 2	ENGG1001	MATH1051	CHEM1100	Dual Degree Course

- **No High School Chemistry?** Seek academic advice to plan your program.
- **MATH1052 must be taken in Summer Semester, or Semester 1 of Year 2.**
- **If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics),** and you are unable to complete MATH1052 in Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- **If your dual program is with B.InfTech,** it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci,** it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

#### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	MATH1051	ENGG1500	Dual Degree Course
	Sem 2	ENGG1001	MATH1052	CHEM1100	Dual Degree Course

- **No High School Chemistry?** Seek academic advice to plan your program.
- **If your dual program is with B.InfTech,** it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci,** it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

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: December 2024

# Bachelor of Engineering (Honours) Dual Degree with Specialisation in Civil Engineering

## Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	MATH1050	ENGG1700	Dual Degree Course
	Sem 2	ENGG1001	MATH1051	MATH1052	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **No High School Chemistry?** Seek academic advice to plan your program.
- **If you achieve a grade of 4 in MATH1050**, it is strongly recommended to do MATH1052 in Summer Semester (i.e. after MATH1051).
- **If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics)**, and you are unable to complete MATH1052 in Semester 2 or Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	MATH1051	ENGG1700	Dual Degree Course
	Sem 2	ENGG1001	MATH1052	Elective	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **No High School Chemistry?** Seek academic advice to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

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.



# Bachelor of Engineering (Honours)

## Dual Degree with Specialisation in Electrical Engineering

### Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	MATH1050	CSSE1001 (Or ENGG1001)	Dual Degree Course
	Sem 2	ENGG1300	MATH1051	MATH1052	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **If you achieve a grade of 4 in MATH1050**, it is strongly recommended to do MATH1052 in Summer Semester (i.e. after MATH1051).
- **If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics)**, and you are unable to complete MATH1052 in Semester 2 or Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2

#### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	MATH1051	ENGG1300	Dual Degree Course
	Sem 2	CSSE1001 (Or ENGG1001)	MATH1052	Elective OR Dual Degree Course	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

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.

# Bachelor of Engineering (Honours)

## Dual Degree with Specialisation in Mechanical Engineering

### Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	MATH1050	ENGG1700 or ENGG1500	Dual Degree Course
	Sem 2	ENGG1001	MATH1051	ENGG1500 or ENGG1700	Dual Degree Course

- **ENGG1300 must be completed** in year 2 or 3.
- **No High School Physics?** Seek academic advice to plan your program.
- **No High School Chemistry?** Seek academic advice to plan your program.
- **MATH1052 must be taken** in Summer Semester, or Semester 1 of Year 2.
- **If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics)**, and you are unable to complete MATH1052 in Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS200) in Semester 2.

#### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	MATH1051	ENGG1700 or ENGG1500	Dual Degree Course
	Sem 2	ENGG1001	MATH1052	ENGG1500 or ENGG1700	Dual Degree Course

- **ENGG1300 must be completed** in year 2 or 3.
- **No High School Physics?** Seek academic advice to plan your program.
- **No High School Chemistry?** Seek academic advice to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS200) in Semester 2.

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.

# Bachelor of Engineering (Honours)

## Dual Degree with Specialisation in Mechatronic Engineering

### Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	MATH1050	ENGG1001 or CSSE1001	Dual Degree Course
	Sem 2	ENGG1300	MATH1051	ENGG1700	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **MATH1052 should be taken** in Summer Semester or Semester 1 of Year 2.
- **If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics)**, and you are unable to complete MATH1052 in Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

#### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	MATH1051	ENGG1300	Dual Degree Course
	Sem 2	ENGG1001 or CSSE1001	MATH1052	ENGG1700	Dual Degree Course

- **No High School Physics?** Seek academic advice to plan your program.
- **If your dual program is with B.InfTech**, it is recommended that your enrol in CSSE1001 instead of ENGG1001.
- **If your dual program is with B.CompSci**, it is recommended that you enrol in CSSE1001 in Semester 1 (rather than ENGG1001 in Semester 2); and then complete two dual degree courses (MATH1061 and INFS1200) in Semester 2.

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.

# Bachelor of Engineering (Honours)

## Dual Degree with Specialisation in Software Engineering

### Recommended Enrolment Plan

Valid from 2025

The table below shows the required:

Core Courses	Specialisation	Engineering Electives
Dual Degree	Prep Courses	

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

Y1	Sem 1	ENGG1100	CSSE1001 *	MATH1050	Dual Degree Course
	Sem 2	MATH1051	MATH1052	ENGG1300	Dual Degree Course

- If you achieve a grade of 4 in MATH1050, it is strongly recommended to do MATH1052 in Summer Semester.
- If your dual program is with B.Mathematics, B.Sc(Mathematics) or B.Sc(Physics), and you are unable to complete MATH1052 in Semester 2 or Summer Semester, you should seek academic advice prior to the commencement of Semester 2 to plan your program.
- CSSE1001 can be replaced with ENGG1001

#### Completed High School Specialist Mathematics with a grade of C or above.

Y1	Sem 1	ENGG1100	CSSE1001 *	MATH1051	Dual Degree Course
	Sem 2	MATH1052	ENGG1300	MATH1061 or INFS1200	Dual Degree Course

- CSSE1001 can be replaced with ENGG1001

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.