

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Important Information

It is your responsibility to ensure that you complete all the requirements for each component of this dual program in order to graduate with both degrees. The following information is designed to help you plan your enrolment to meet this goal.

Program Requirements

The Program Rules outline the requirements to complete the dual program and should be read in conjunction with the course list for each component of the dual program. The program rules are available on [UQ's Programs and Courses](#) website for the program.

Program Guidelines

Bachelor of Engineering (Honours) (BE(Hons)) component:

- Students without Queensland Senior Maths C should complete MATH1050 before MATH1051.
- Students must complete a specialisation in *chemical engineering*.
- All common core and compulsory courses must be counted towards the BE(Hons) component of the dual program and substituted in the BBiotech course list by a course at the same level or higher.
- First Year BE(Hons) students can find further program planning information via the Faculty current student resources page:
 - Dual Degree specific information: <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering>
- BE(Hons) students should discuss their enrolment plan with an academic adviser. The list of academic advisers is available at: <https://www.eait.uq.edu.au/current-students/manage-your-program/academic-advice>

Bachelor of Biotechnology (BBiotech) component:

- Students must complete an extended major.
- Where a BBiotech extended major requires BIOL1040, CHEM1200 or FOOD1001 as a prerequisite course, it must be counted towards the BE(Hons) component as either a program elective within the specialisation or a chemical engineering breadth elective.

Cross-listed Courses

A course can only count towards one dual program component. If the course is compulsory in one program, it must be counted towards that program component and you should select another course from the other course list at the same level or higher. If a course is compulsory in both program's plans, you may select which program it will count towards, and follow the special rules that outline how to select another course at the same level or higher.

Please check the special rules for the dual program as they may outline specific requirements for course substitutions.

Regardless of any possible cross-listing between programs, to meet the program requirements for the BBiotech component of your dual program the extended major must include 12 units of courses level 3 or higher taken from and counting only towards that extended major's course list.

Selecting Plans in mySI-net

A plan is a prescribed combination of courses within a program being either a field of study, major, extended major, specialisation, minor or extended minor.

Ensure the plans for your program are correctly listed in [mySI-net](#). If you require assistance selecting your plan(s), follow these [instructions](#).

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Course Scheduling

This planner is intended as a guide only and is based on current scheduling of courses. Students should note that scheduling can change from year to year. You are advised to check the scheduling for the current year and contact the relevant Faculty for advice if course scheduling has changed.

Exiting Early

Students exiting early with one component of a dual degree must complete the single degree requirements of that component. Students will then be required to follow the single degree rules to complete the remaining component from that dual degree.

Global Experience

If you are planning on completing an overseas exchange, you may have to amend this plan. Students who would like an exchange experience in their program are encouraged to seek advice early in their program and be aware of the exchange deadlines: <https://employability.uq.edu.au/global-experiences>.

Require Further Assistance?

If you require assistance planning your program or have concerns about meeting program requirements, contact the relevant Faculty for advice:

Program	Faculty	Contact Information
Bachelor of Engineering (Honours)	Faculty of Engineering, Architecture and Information Technology	enquiries@eait.uq.edu.au
Bachelor of Biotechnology	Faculty of Science	enquire@science.uq.edu.au

Notes:

If you are planning to continue and pursue a degree in medicine please make an academic appointment to further discuss your study plan and pathway to medicine.

Study Planners

- [Semester 1 Commencement | Full Time Study Planner – BBiotech component – Agricultural Biotechnology Extended Major](#)
- [Semester 1 Commencement | Full Time Study Planner – BBiotech component – Chemical and Nano Biotechnology Extended Major](#)
- [Semester 1 Commencement | Full Time Study Planner – BBiotech component – Medical Biotechnology Extended Major](#)
- [Semester 1 Commencement | Full Time Study Planner – BBiotech component – Molecular and Microbial Biotechnology Extended Major](#)
- [Semester 1 Commencement | Full Time Study Planner – BBiotech component – Synthetic Biology and Industrial Biotechnology Extended Major](#)
- [Semester 2 Commencement | Full Time Study Planner – BBiotech component – Agricultural Biotechnology Extended Major](#)
- [Semester 2 Commencement | Full Time Study Planner – BBiotech component – Chemical and Nano Biotechnology Extended Major](#)
- [Semester 2 Commencement | Full Time Study Planner – BBiotech component – Medical Biotechnology Extended Major](#)
- [Semester 2 Commencement | Full Time Study Planner – BBiotech component – Molecular and Microbial Biotechnology Extended Major](#)
- [Semester 2 Commencement | Full Time Study Planner – BBiotech component – Synthetic Biology and Industrial Biotechnology Extended Major](#)

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 1 Commencement | Full Time Study Planner

	BACHELOR OF ENGINEERING (HONOURS)			BACHELOR OF BIOTECHNOLOGY Agricultural Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1					
	ENGG1100	Professional Engineering	2			
	MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	ENGG1500	Thermodynamics: Energy and the Environment	2			
Year 1	Semester 2					
	ENGG1001 or CSSE1001	Programming for Engineers Introduction to Software Engineering	2			
	MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2	BIOT2002	Introduction to Biotechnology	2
	CHEM1100	Chemistry 1	2			
Year 2	Semester 1					
	CHEE2001	Process Principles	2			
	CHEE2003	Fluid & Particle Mechanics	2	BIOC2000	Biochemistry & Molecular Biology	2
	CHEE2010	Engineering Investigation & Statistical Analysis	2			
Year 2	Semester 2					
	CHEE2020	Process Equipment and Control Systems	2			
	CHEE2030	Chemical Thermodynamics	2			
	CHEE2040	Heat and Mass Transfer	2			
Year 3	Semester 1					
	CHEE3004	Unit Operations	2	BIOL1030	Global Challenges in Biology	2
	CHEM2056	Physical Chemistry for Engineering	2	Level 2 Course	Level 2 course from extended major list (BIOL2200, CHEM2003, FOOD2000)	2
	CHEE3007	Process Modelling & Dynamics	2	BIOL2202	Genetics	2
Year 3	Semester 2					
		Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives ³	2	Level 2 Course	Level 2 course from extended major list (BIOL2203, MICR2000, MICR2001)	2

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3005	Reaction Engineering	2	BIOT3009	Quality Management Systems in Biotechnology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹)	2
	Semester 2	CHEE3020	Process Systems Analysis	2	BIOT3004	Commercialisation of Biotechnology Products	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOL3011 ² , BIOL3320 ² , FOOD3008 ²)	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹ , BIOL3003 ² , BIOL3201 ² , BIOL3209 ²)	2
		ENGG4901	Professional Practice and the Business Environment A	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹ , BIOL3003 ² , BIOL3201 ² , BIOL3209 ²)	2
	Semester 2	CHEE4001	Process Engineering Design Project	4			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

¹ Complete at least 2 units from BIOL3213, BIOL3303 and FOOD3023

² Complete at least 2 units from BIOL3003, BIOL3011, BIOL3201, BIOL3209, BIOL3320 and FOOD3008

³ Students should complete either BIOL1040 in Year 2 Sem 2 or FOOD1001 in Year 3 Sem 1, towards the BE(Hons) component as either a program elective or breadth elective to satisfy the BBiotech pre-requisites.

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 1 Commencement | Full Time Study Planner

	BACHELOR OF ENGINEERING (HONOURS)			BACHELOR OF BIOTECHNOLOGY Chemical and Nano Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1					
	ENGG1100	Professional Engineering	2			
	MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	ENGG1500	Thermodynamics: Energy and the Environment	2			
Year 1	BIOE1001 or BIOL1020	Principles of Biomedical & Bioprocess Engineering or Genes, Cells & Evolution	2			
	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2			
	MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2	BIOT2002	Issues in Biotechnology	2
	CHEM1100	Chemistry 1	2			
Year 2	Semester 1					
	CHEE2001	Process Principles	2			
	CHEE2003	Fluid & Particle Mechanics	2	CHEM1200	Chemistry 2	2
	CHEE2010	Engineering Investigation & Statistical Analysis	2			
Year 2	Semester 2					
	CHEE2020	Process Equipment and Control Systems	2			
	CHEE2030	Chemical Thermodynamics	2			
	CHEE2040	Heat and Mass Transfer	2			
Year 3	Semester 1					
	CHEM2056	Physical Chemistry for Engineering	2	BIOC2000	Biochemistry & Molecular Biology	2
				CHEM2050	Intermediate Chemistry 1	2
				CHEM2054	Experimental Chemistry 1	2
Year 3	Semester 2					
	CHEE3007	Process Modelling & Dynamics	2			
	CHEE3020	Process Systems Analysis	2	CHEM2060	Intermediate Chemistry 2	2
		Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	BIOT3009	Quality Management Systems in Biotechnology	2
		CHEE3005	Reaction Engineering	2	Level 3 Course	Level 3 course from extended major list (CHEM3001 ¹ , CHEM3010 ¹ , CHEM3004 ²)	2
	Semester 2		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOT3004	Commercialisation of Biotechnology Products	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	CHEM3016	Experimental Chemistry 2	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	Level 3 Course	Level 3 course from extended major list (CHEM3001 ¹ , CHEM3010 ¹ , CHEM3004 ²)	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2	CHEE4001	Process Engineering Design Project	4	Level 3 Course	Level 3 course from extended major list (CHEM3011 ¹ , CHEM3020 ² , CHEM3030 ²)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
¹ Complete 2 units from CHEM3001, CHEM3010, CHEM3011 ² Complete 4 units from CHEM3004, CHEM3020, CHEM3030 * Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering for further details about how to choose these courses.							

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 1 Commencement | Full Time Study Planner

BACHELOR OF ENGINEERING (HONOURS)				BACHELOR OF BIOTECHNOLOGY Medical Biotechnology			
				Course Code	Course Name	Units	
Year 1	Semester 1	ENGG1100	Professional Engineering	2			
		MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
		ENGG1500	Thermodynamics: Energy and the Environment	2			
		BIOE1001 or BIOL1020	Principles of Biomedical & Bioprocess Engineering or Genes, Cells & Evolution	2			
	Semester 2	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2	BIOT2002	Issues in Biotechnology	2
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		CHEM1100	Chemistry 1	2			
Year 2	Semester 1	CHEE2001	Process Principles	2	CHEM1200	Chemistry 2	2
		CHEE2003	Fluid & Particle Mechanics	2			
		CHEE2010	Engineering Investigation & Statistical Analysis	2			
	Semester 2	BIOL1040	Cells to Organisms	2			
		CHEE2020	Process Equipment and Control Systems	2			
		CHEE2030	Chemical Thermodynamics	2			
		CHEE2040	Heat and Mass Transfer	2			
	Year 3	Semester 1	CHEE3004	Unit Operations	2	BIOC2000	Biochemistry & Molecular Biology
CHEM2056			Physical Chemistry for Engineering	2	CHEM2050	Intermediate Chemistry 1	2
Semester 2		CHEE3007	Process Modelling & Dynamics	2	BIOM2402	Principles of Pharmacology	2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 2 Course	Level 2 course from extended major list (BIOL2202) ¹	2

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3005	Reaction Engineering	2	BIOT3009	Quality Management Systems in Biotechnology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOM3401	Systems Pharmacology	2
	Semester 2	CHEE3020	Process Systems Analysis	2	BIOT3004	Commercialisation of Biotechnology Products	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOM3402	Experimental Pharmacology	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	BIOT3002	Drug Design & Development	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2	CHEE4001	Process Engineering Design Project	4	CHEM3020	Medicinal Chemistry & Chemical Biology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

¹ Students wanting to complete CHEM2054 or BIOL2200 instead of BIOL2202, complete a 'Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives' in Year 3, Sem 2 (in place of BIOL2202) and complete CHEM2054 or BIOL2200 in Year 4, Sem 1.

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 1 Commencement | Full Time Study Planner

	BACHELOR OF ENGINEERING (HONOURS)			BACHELOR OF BIOTECHNOLOGY Molecular and Microbial Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1	ENGG1100	Professional Engineering	2		
		MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2		
		ENGG1500	Thermodynamics: Energy and the Environment	2		
		BIOL1020	Genes, Cells & Evolution	2		
Year 1	Semester 2	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2	BIOL1040	Cells to Organisms 2
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2		
		CHEM1100	Chemistry 1	2		
Year 2	Semester 1	CHEM1200	Chemistry 2	2		
		CHEE2001	Process Principles	2		
		CHEE2003	Fluid & Particle Mechanics	2		
		CHEE2010	Engineering Investigation & Statistical Analysis	2		
	Semester 2	CHEE2020	Process Equipment and Control Systems	2	BIOT2002	Issues in Biotechnology 2
		CHEE2030	Chemical Thermodynamics	2		
		CHEE2040	Heat and Mass Transfer	2		
Year 3	Semester 1	CHEM2056	Physical Chemistry for Engineering	2	BIOC2000	Biochemistry & Molecular Biology 2
		CHEE3004	Unit Operations	2	Level 2 Course	Level 2 course from extended major list (BIOL2200) ¹ 2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOL2202	Genetics 2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	MICR2000	Microbiology & Immunology 2

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3005	Reaction Engineering	2	Level 3 Course	Level 3 course from extended major list (BIOC3000 ² , BIOC3003 ³ , BIOL3003 ³ , BIOL3303 ³ , MICR3002 ³ , MICR3003 ³)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOC3000 ² , BIOC3003 ³ , BIOL3003 ³ , BIOL3303 ³ , MICR3002 ³ , MICR3003 ³)	2
	Semester 2	CHEE3020	Process Systems Analysis	2	Level 3 Course	Level 3 course from extended major list (MICR3001 ² , BIOC3005 ³ , BIOC3006 ³ , BIOL3006 ³ , CHEM3020 ³ , MICR3004 ³ , PARA3002 ³)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOC3000 ² , BIOC3003 ³ , BIOL3003 ³ , BIOL3303 ³ , MICR3002 ³ , MICR3003 ³)	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	BIOT3009	Quality Management Systems in Biotechnology	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOT3004	Commercialisation of Biotechnology Products	2
		CHEE4001	Process Engineering Design Project	4			

¹ Students wanting to complete BIOC2052 instead of BIOL2200, complete a 'Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives' in Year 3, Sem 1 (in place of BIOL2200) and complete BIOC2052 in Year 3, Sem 2.

² Complete at least 2 units from BIOC3000 and MICR3001

³ Complete at least 4 units from BIOC3003, BIOC3005, BIOC3006, BIOL3003, BIOL3006, BIOL3303, CHEM3020, MICR3002, MICR3003, MICR3004, and PARA3002

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 1 Commencement | Full Time Study Planner

	BACHELOR OF ENGINEERING (HONOURS)			BACHELOR OF BIOTECHNOLOGY Synthetic Biology and Industrial Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1	ENGG1100	Professional Engineering			
		MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I			
		ENGG1500	Thermodynamics: Energy and the Environment			
		BIOL1020 or BIOE1001	Genes, Cells & Evolution or Principles of Biomedical & Bioprocess Engineering			
	Semester 2	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	BIOT2002	Issues in Biotechnology	2
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations			
		CHEM1100	Chemistry 1			
Year 2	Semester 1	CHEE2001	Process Principles	BIOC2000	Biochemistry & Molecular Biology	2
		CHEE2003	Fluid & Particle Mechanics			
		CHEE2010	Engineering Investigation & Statistical Analysis			
	Semester 2	CHEE2020	Process Equipment and Control Systems	Level 2 course or Elective course	Level 2 course ² from BBiotech course list or Level 2 course from extended major list (MICR2000 ³) or Course ¹ from BBiotech course list	2
		CHEE2030	Chemical Thermodynamics			
		CHEE2040	Heat and Mass Transfer			
Year 3	Semester 1	CHEE3004	Unit Operations	Level 2 course or Elective course	Level 2 course ² from BBiotech course list or Level 2 course from extended major list (SCIE2100 ³) or Course ¹ from BBiotech course list	2
		CHEM2056	Physical Chemistry for Engineering			
			Chemical Engineering Program Elective			
	Semester 2	CHEE3007	Process Modelling & Dynamics	BIOL2202	Genetics	2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives		Level 2 course ² from BBiotech course list or Level 2 course from extended major list (MICR2000 ³) or Level 3 course from extended major list (SCIE3100 ⁴ , MICR3004 ⁴)	2

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3005	Reaction Engineering	2	BIOC3000	Structural & Synthetic Biology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOT3009	Quality Management Systems in Biotechnology	2
	Semester 2	CHEE3020	Process Systems Analysis	2	BIOC3005	Molecular Systems Biology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOT3004	Commercialisation of Biotechnology Products	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	BIOE4020	Bioprocess Engineering	2
		ENGG4901	Professional Practice and the Business Environment A	2		Level 2 course ² from BBiotech course list or Level 3 course from extended major list (MICR3003 ⁴)	2
	Semester 2	CHEE4001	Process Engineering Design Project	4			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

¹ Course from BBiotech course list at Level 1 or higher (in place of MATH1051/MATH1071, which counts towards BE(Hons) component)

² Course from BBiotech course list at Level 2 or higher (in place of CHEE2001, which counts towards BE(Hons) component)

³ Choose 2 units from MICR2000, SCIE2100 (Recommend SCIE2100)

⁴ Choose 2 units from MICR3003, MICR3004, SCIE3100 (Recommend SCIE3100)

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 2 Commencement | Full Time Study Planner

	BACHELOR OF ENGINEERING (HONOURS)			BACHELOR OF BIOTECHNOLOGY Agricultural Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1					
Year 1	Semester 2					
Year 2	Semester 1					
Year 2	Semester 2					
Year 3	Semester 1					
Year 3	Semester 2					

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	BIOT3009	Quality Management Systems in Biotechnology	2
		CHEE3005	Reaction Engineering	2	Level 2 Course	Level 2 course from extended major list (BIOL2200, CHEM2003, FOOD2000)	2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOT3004	Commercialisation of Biotechnology Products	2
		CHEE3020	Process Systems Analysis	2	Level 3 Course	Level 3 course from extended major list (BIOL3011 ² , BIOL3320 ² , FOOD3008 ²)	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹ , BIOL3003 ² , BIOL3201 ² , BIOL3209 ²)	2
		ENGG4901	Professional Practice and the Business Environment A	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹ , BIOL3003 ² , BIOL3201 ² , BIOL3209 ²)	2
	Semester 2	CHEE4001	Process Engineering Design Project	4			
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 6	Semester 1		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOL3213 ¹ , BIOL3303 ¹ , FOOD3023 ¹ , BIOL3003 ² , BIOL3201 ² , BIOL3209 ²)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2						

¹ Complete at least 2 units from BIOL3213, BIOL3303 and FOOD3023

² Complete at least 2 units from BIOL3003, BIOL3011, BIOL3201, BIOL3209, BIOL3320 and FOOD3008

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 2 Commencement | Full Time Study Planner

BACHELOR OF ENGINEERING (HONOURS)				BACHELOR OF BIOTECHNOLOGY Chemical and Nano Biotechnology			
	Course Code	Course Name	Units	Course Code	Course Name	Units	
Year 1	Semester 1						
	Semester 2	ENGG1100	Professional Engineering	2			
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		ENGG1500	Thermodynamics: Energy and the Environment	2			
		CHEM1100	Chemistry 1	2			
Year 2	Semester 1	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2	CHEM1200	Chemistry 2	2
		MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
		BIOE1001 or BIOL1020	Principles of Biomedical & Bioprocess Engineering or Genes, Cells & Evolution	2			
	Semester 2	CHEE2001	Process Principles	2	BIOT2002	Introduction to Biotechnology	2
		CHEE2030	Chemical Thermodynamics	2			
			Chemical Engineering Program Elective				
Year 3	Semester 1	CHEE2003	Fluid & Particle Mechanics	2	BIOC2000	Biochemistry & Molecular Biology	2
		CHEM2056	Physical Chemistry for Engineering	2			
		CHEE2010	Engineering Investigation & Statistical Analysis	2			
	Semester 2	CHEE2020	Process Equipment and Control Systems	2	CHEM2060	Intermediate Chemistry 2	2
		CHEE2040	Heat and Mass Transfer	2			
		CHEE3020	Process Systems Analysis	2			

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	CHEM2054	Experimental Chemistry 1	2
		CHEE3005	Reaction Engineering	2	CHEM2050	Intermediate Chemistry 1	2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOT3004	Commercialisation of Biotechnology Products	2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (CHEM3011 ¹ , CHEM3020 ² , CHEM3030 ²)	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	BIOT3009	Quality Management Systems in Biotechnology	2
		ENGG4901	Professional Practice and the Business Environment A	2	Level 3 Course	Level 3 course from extended major list (CHEM3001 ¹ , CHEM3010 ¹ , CHEM3004 ²)	2
	Semester 2	CHEE4001	Process Engineering Design Project	4	CHEM3016	Experimental Chemistry 2	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 6	Semester 1		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (CHEM3001 ¹ , CHEM3010 ¹ , CHEM3004 ²)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2						

¹ Complete 2 units from CHEM3001, CHEM3010, CHEM3011

² Complete 4 units from CHEM3004, CHEM3020, CHEM3030

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 2 Commencement | Full Time Study Planner

BACHELOR OF ENGINEERING (HONOURS)				BACHELOR OF BIOTECHNOLOGY Medical Biotechnology			
				Course Code	Course Name	Units	
Year 1	Semester 1						
	Semester 2	ENGG1100	Professional Engineering	2			
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		ENGG1500	Thermodynamics: Energy and the Environment	2			
		CHEM1100	Chemistry 1	2			
Year 2	Semester 1	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2	CHEM1200	Chemistry 2	2
	MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2				
	BIOE1001 or BIOL1020	Principles of Biomedical & Bioprocess Engineering or Genes, Cells & Evolution	2				
	Semester 2	CHEE2001	Process Principles	2	BIOT2002	Introduction to Biotechnology	2
		CHEE2030	Chemical Thermodynamics	2			
		BIOL1040	Cells to Organisms	2			
Year 3	Semester 1	CHEE2003	Fluid & Particle Mechanics	2	BIOC2000	Biochemistry & Molecular Biology	2
	CHEM2056	Physical Chemistry for Engineering	2				
	CHEE2010	Engineering Investigation & Statistical Analysis	2				
	Semester 2	CHEE2020	Process Equipment and Control Systems	2	BIOM2402	Principles of Pharmacology	2
		CHEE2040	Heat and Mass Transfer	2	Level 2 Course	Level 2 course from extended major list (BIOL2202) ¹	2

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	BIOM3401	Systems Pharmacology	2
		CHEE3005	Reaction Engineering	2	CHEM2050	Intermediate Chemistry 1	2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOT3004	Commercialisation of Biotechnology Products	2
		CHEE3020	Process Systems Analysis	2	BIOM3402	Experimental Pharmacology	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	BIOT3009	Quality Management Systems in Biotechnology	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2	CHEE4001	Process Engineering Design Project	4	CHEM3020	Medicinal Chemistry & Chemical Biology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 6	Semester 1		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	BIOT3002	Drug Design & Development	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

¹ Students wanting to complete CHEM2054 or BIOL2200 instead of BIOL2202, complete a 'Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives' in Year 3, Sem 2 (in place of BIOL2202) and complete CHEM2054 or BIOL2200 in Year 5, Sem 1.

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 2 Commencement | Full Time Study Planner

BACHELOR OF ENGINEERING (HONOURS)				BACHELOR OF BIOTECHNOLOGY Molecular and Microbial Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1					
	ENGG1100	Professional Engineering	2			
	MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
	ENGG1500	Thermodynamics: Energy and the Environment	2			
	CHEM1100	Chemistry 1	2			
Year 2	Semester 1					
	ENGG1001	Programming for Engineers	2			
	MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	BIOL1020 or BIOE1001	Genes, Cells & Evolution or Principles of Biomedical and Bioprocess Engineering	2			
	CHEM1200	Chemistry II	2			
	Semester 2					
	CHEE2001	Process Principles	2	BIOL1040	Cells to Organisms	2
Year 3	Semester 1					
	CHEE2003	Fluid & Particle Mechanics	2			
	CHEE2010	Engineering Investigation & Statistical Analysis	2			
	CHEM2056	Physical Chemistry for Engineering	2			
	Semester 2					
	CHEE2020	Process Equipment and Control Systems	2			
Year 3	CHEE2030	Chemical Thermodynamics	2			
	CHEE2040	Heat and Mass Transfer	2			

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	Level 2 Course	Level 2 course from extended major list (BIOL2200) ¹	2
		CHEE3005	Reaction Engineering	2	BIOT3009	Quality Management System in Biotechnology	2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOT3004	Commercialisation of Biotechnology Products	2
		CHEE3020	Process Systems Analysis	2			
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	Level 3 Course	Level 3 course from extended major list (BIOC3000 ² , BIOC3003 ³ , BIOL3003 ³ , BIOL3303 ³ , MICR3002 ³ , MICR3003 ³)	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2	CHEE4001	Process Engineering Design Project	4	Level 3 Course	Level 3 course from extended major list (MICR3001 ² , BIOC3005 ³ , BIOC3006 ³ , BIOL3006 ³ , CHEM3020 ³ , MICR3004 ³ , PARA3002 ³)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 6	Semester 1		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (BIOC3000 ² , BIOC3003 ³ , BIOL3003 ³ , BIOL3303 ³ , MICR3002 ³ , MICR3003 ³)	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (MICR3001 ² , BIOC3005 ³ , BIOC3006 ³ , BIOL3006 ³ , CHEM3020 ³ , MICR3004 ³ , PARA3002 ³)	2

¹ Students wanting to complete BIOC2052 instead of BIOL2200, complete a 'Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives' in Year 4, Sem 1 (in place of BIOL2200) and complete BIOC2052 in Year 4, Sem 2. However keeping in mind that BIOL2200 is a prerequisite for BIOL3006 and BIOC2052 is a prerequisite for CHEM3020.

² Complete at least 2 units from BIOC3000 and MICR3001

³ Complete at least 4 units from BIOC3003, BIOC3005, BIOC3006, BIOL3003, BIOL3006, BIOL3303, CHEM3020, MICR3002, MICR3003, MICR3004, and PARA3002

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to <https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Semester 2 Commencement | Full Time Study Planner

BACHELOR OF ENGINEERING (HONOURS)				BACHELOR OF BIOTECHNOLOGY Synthetic Biology and Industrial Biotechnology		
	Course Code	Course Name	Units	Course Code	Course Name	Units
Year 1	Semester 1					
	Semester 2	ENGG1100	Professional Engineering	2		
		MATH1052 or MATH1072	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2		
		ENGG1500	Thermodynamics: Energy and the Environment	2		
Year 2	Semester 1	ENGG1001 or CSSE1001	Programming for Engineers or Introduction to Software Engineering	2	Elective course	Course ¹ from BBiotech course list
		MATH1051 or MATH1071	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2		
		CHEM1100	Chemistry 1	2		
	Semester 2	CHEE2001	Process Principles	2	BIOL2202	Genetics
		CHEE2030	Chemical Thermodynamics	2	BIOT2002	Issues in Biotechnology
Year 3	Semester 1	CHEE2003	Fluid & Particle Mechanics	2	BIOC2000	Biochemistry & Molecular Biology
		CHEE2010	Engineering Investigation & Statistical Analysis	2		
		CHEM2056	Physical Chemistry for Engineering	2		
	Semester 2	CHEE2020	Process Equipment and Control Systems	2	Level 2 Course	Level 2 course from extended major list (MICR2000) ³
		CHEE2040	Heat and Mass Transfer	2	BIOT3004	Commercialisation of Biotechnology Products

2025 Dual Degree Study Planner

Bachelor of Engineering (Honours) / Bachelor of Biotechnology



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Year 4	Semester 1	CHEE3004	Unit Operations	2	BIOC3000	Structural & Synthetic Biology	2
		CHEE3005	Reaction Engineering	2	BIOT3009	Quality Management Systems in Biotechnology	2
	Semester 2	CHEE3007	Process Modelling & Dynamics	2	BIOC3005	Bioprocess Engineering	2
		CHEE3020	Process Systems Analysis	2	Elective Course	Course ³ from BBiotech course list	2
Year 5	Semester 1	CHEE4002	Risk in Process Industries	2	Level 3 Course	Level 3 Course from extended major list (MICR3003, MICR3004, SCIE3100)	2
		ENGG4901	Professional Practice and the Business Environment A	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2	CHEE4001	Process Engineering Design Project	4	BIOE4020	Bioprocess Engineering	2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 6	Semester 1		Chemical Engineering Program Elective	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

¹ Course from BBiotech course list at Level 1 or higher (in place of MATH1051/MATH1071, which counts towards BE(Hons) component)

² Course from BBiotech course list at Level 2 or higher (in place of CHEE2001, which counts towards BE(Hons) component)

³ Choose 2 units from MICR2000, SCIE2100 (Recommend SCIE2100). Students wanting to complete SCIE2100 instead of MICR2000, complete a 'Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives' in Year 3, Sem 2 (in place of MICR2000), complete SCIE2100 in Year 4, Sem 1, and BIOT3009 in Year 6 Sem 1. However keeping in mind that MICR2000 is a prerequisite for MICR3003 and MICR3004, and SCIE2100 is a prerequisite for SCIE3100.

⁴ Choose 2 units from MICR3003, MICR3004, SCIE3100 (Recommend SCIE3100)

* Courses chosen in the engineering component of the first year will depend on whether it is necessary to complete MATH1050 prior to MATH1051. All students undertaking the Chemical Engineering Specialisation must complete ENGG1001 (or CSSE1001), MATH1051 (or MATH1071), MATH1052 (or MATH1072), and ENGG1500. Refer to<https://www.eait.uq.edu.au/current-students/information-new-students/undergraduate-information-new-students/get-started-engineering> for further details about how to choose these courses.