

## 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure>
  - More general program planning information: <https://www.eait.uq.edu.au/current-students/information-new-students/get-started-bachelor-engineering-honours>
- 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](#).

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### 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	<a href="mailto:enquiries@eait.uq.edu.au">enquiries@eait.uq.edu.au</a>
Bachelor of Biotechnology	Faculty of Science	<a href="mailto:enquire@science.uq.edu.au">enquire@science.uq.edu.au</a>

### 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](#)

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### 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	<a href="#">ENGG1100</a>	Professional Engineering	2				
	<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2				
	<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2				
	<a href="#">BIOL1020</a>	Genes, Cells & Evolution	2				
Year 1 Semester 2	<a href="#">ENGG1001</a>	Programming for Engineers	2	<b>BIOT2002</b>	Introduction to Biotechnology	2	
	<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2				
	<a href="#">CHEM1100</a>	Chemistry 1	2				
Year 2 Semester 1	<a href="#">CHEE2001</a>	Process Principles	2	<b>BIOC2000</b>	Biochemistry & Molecular Biology	2	
	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2				
	<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2				
	Year 2 Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2			
		<a href="#">CHEE2030</a>	Chemical Thermodynamics	2			
		<a href="#">CHEE2040</a>	Heat and Mass Transfer	2			
			Chemical Engineering Program Elective <sup>3</sup>	2			
Year 3 Semester 1	<a href="#">CHEE3004</a>	Unit Operations	2	<b>BIOL1030</b>	Global Challenges in Biology	2	
	<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2	<b>Level 2 Course</b>	Level 2 course from extended major list (BIOL2200, FOOD2000)	2	
	<a href="#">CHEE3007</a>	Process Modelling & Dynamics	2	<b>BIOL2202</b>	Genetics	2	
		Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives <sup>3</sup>	2	<b>Level 2 Course</b>	Level 2 course from extended major list (BIOL2203, CHEM2003, MICR2000, MICR2001)	2	

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Year 4	Semester 1	<b>CHEE3005</b>	Reaction Engineering	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> )	2
Year 4	Semester 2	<b>CHEE3020</b>	Process Systems Analysis	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3011 <sup>2</sup> , BIOL3320 <sup>2</sup> , FOOD3008 <sup>2</sup> )	2
Year 5	Semester 1	<b>CHEE4002</b>	Risk in Process Industries	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> , BIOL3003 <sup>2</sup> , BIOL3201 <sup>2</sup> , BIOL3209 <sup>2</sup> )	2
		<b>ENGG4900</b>	Professional Practice and the Business Environment	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> , BIOL3003 <sup>2</sup> , BIOL3201 <sup>2</sup> , BIOL3209 <sup>2</sup> )	2
	Semester 2	<b>CHEE4001</b>	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				

<sup>1</sup> Complete at least 2 units from BIOL3213, BIOL3303 and FOOD3023

<sup>2</sup> Complete at least 2 units from BIOL3003, BIOL3011, BIOL3201, BIOL3209, BIOL3320 and FOOD3008

<sup>3</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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### 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	<a href="#">ENGG1100</a>	Professional Engineering	2			
	<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2			
	<a href="#">BIOE1001</a> or <a href="#">BIOL1020</a>	Principles of Biomedical & Bioprocess Engineering or Genes, Cells & Evolution	2			
Year 1 Semester 2	<a href="#">ENGG1001</a>	Programming for Engineers	2	<b>BIOT2002</b>	Issues in Biotechnology	2
	<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
	<a href="#">CHEM1100</a>	Chemistry 1	2			
Year 2 Semester 1	<a href="#">CHEE2001</a>	Process Principles	2	<b>CHEM1200</b>	Chemistry 2	2
	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2			
	<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2			
	Year 2 Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2		
<a href="#">CHEE2030</a>		Chemical Thermodynamics	2			
<a href="#">CHEE2040</a>		Heat and Mass Transfer	2			
		Chemical Engineering Program Elective	2			
Year 3 Semester 1	<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2	<b>BIOC2000</b>	Biochemistry & Molecular Biology	2
				<b>CHEM2050</b>	Intermediate Chemistry 1	2
				<b>CHEM2054</b>	Experimental Chemistry 1	2
Year 3 Semester 2	<a href="#">CHEE3007</a>	Process Modelling & Dynamics	2	<b>CHEM2060</b>	Intermediate Chemistry 2	2
	<a href="#">CHEE3020</a>	Process Systems Analysis	2			
		Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

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Year 4		Semester 1		Semester 2		
	<b>CHEE3004</b>	Unit Operations	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
	<b>CHEE3005</b>	Reaction Engineering	2	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3001 <sup>1</sup> , CHEM3010 <sup>1</sup> , CHEM3004 <sup>2</sup> )	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>CHEM3016</b>	Experimental Chemistry 2	2
Year 5		Semester 1		Semester 2		
	<b>CHEE4002</b>	Risk in Process Industries	2	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3001 <sup>1</sup> , CHEM3010 <sup>1</sup> , CHEM3004 <sup>2</sup> )	2
	<b>ENGG4900</b>	Professional Practice and the Business Environment	2			
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	<b>CHEE4001</b>	Process Engineering Design Project	4	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3011 <sup>1</sup> , CHEM3020 <sup>2</sup> , CHEM3030 <sup>2</sup> )	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

<sup>1</sup> Complete 2 units from CHEM3001, CHEM3010, CHEM3011

<sup>2</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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### Semester 1 Commencement | Full Time Study Planner

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

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Year 4		Semester 1		Semester 2		
	<b>CHEE3005</b>	Reaction Engineering	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOM3401</b>	Systems Pharmacology	2
	<b>CHEE3020</b>	Process Systems Analysis	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOM3402</b>	Experimental Pharmacology	2
Year 5		Semester 1		Semester 2		
	<b>CHEE4002</b>	Risk in Process Industries	2	<b>BIOT3002</b>	Drug Design & Development	2
	<b>ENGG4900</b>	Professional Practice and the Business Environment	2			
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	<b>CHEE4001</b>	Process Engineering Design Project	4	<b>CHEM3020</b>	Medicinal Chemistry & Chemical Biology	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

<sup>1</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.



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

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Year 4		Semester 1		Semester 2		
	<b>CHEE3005</b>	Reaction Engineering	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOC3000 <sup>2</sup> , BIOC3003 <sup>3</sup> , BIOL3003 <sup>3</sup> , BIOL3303 <sup>3</sup> , MICR3002 <sup>3</sup> , MICR3003 <sup>3</sup> )	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOC3000 <sup>2</sup> , BIOC3003 <sup>3</sup> , BIOL3003 <sup>3</sup> , BIOL3303 <sup>3</sup> , MICR3002 <sup>3</sup> , MICR3003 <sup>3</sup> )	2
	<b>CHEE3020</b>	Process Systems Analysis	2	<b>Level 3 Course</b>	Level 3 course from extended major list (MICR3001 <sup>2</sup> , BIOC3005 <sup>3</sup> , BIOC3006 <sup>3</sup> , BIOL3006 <sup>3</sup> , CHEM3020 <sup>3</sup> , MICR3004 <sup>3</sup> , PARA3002 <sup>3</sup> )	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOC3000 <sup>2</sup> , BIOC3003 <sup>3</sup> , BIOL3003 <sup>3</sup> , BIOL3303 <sup>3</sup> , MICR3002 <sup>3</sup> , MICR3003 <sup>3</sup> )	2
Year 5		Semester 1		Semester 2		
	<b>CHEE4002</b>	Risk in Process Industries	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
	<b>ENGG4900</b>	Professional Practice and the Business Environment	2			
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
	<b>CHEE4001</b>	Process Engineering Design Project	4			

<sup>1</sup> Students wanting to complete CHEM2052 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 CHEM2052 in Year 3, Sem 2.

<sup>2</sup> Complete at least 2 units from BIOC3000 and MICR3001

<sup>3</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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### 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	<a href="#">ENGG1100</a>	Professional Engineering	2	BIOT2002	Issues in Biotechnology	2
	<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2			
	<a href="#">BIOL1020</a>	Genes, Cells & Evolution	2			
Semester 2	<a href="#">ENGG1001</a>	Programming for Engineers	2			
	<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
	<a href="#">CHEM1100</a>	Chemistry 1	2			
Year 2 Semester 1	<a href="#">CHEE2001</a>	Process Principles	2	BIOC2000	Biochemistry & Molecular Biology	2
	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2			
	<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2			
Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2	Level 2 course or Elective course	Level 2 course <sup>2</sup> from BBiotech course list or Level 2 course from extended major list (MICR2000 <sup>3</sup> ) or Course <sup>1</sup> from BBiotech course list	2
	<a href="#">CHEE2030</a>	Chemical Thermodynamics	2			
	<a href="#">CHEE2040</a>	Heat and Mass Transfer	2			
Year 3 Semester 1	<a href="#">CHEE3004</a>	Unit Operations	2	Level 2 course or Elective course	Level 2 course <sup>2</sup> from BBiotech course list or Level 2 course from extended major list (SCIE2100 <sup>3</sup> ) or Course <sup>1</sup> from BBiotech course list	2
	<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2			
		Chemical Engineering Program Elective	2			
Semester 2	<a href="#">CHEE3007</a>	Process Modelling & Dynamics	2	BIOL2202	Genetics	2
		Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2		Level 2 course <sup>2</sup> from BBiotech course list or Level 2 course from extended major list (MICR2000 <sup>3</sup> ) or Level 3 course from extended major list (SCIE3100 <sup>4</sup> , MICR3004 <sup>4</sup> )	2

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Year 4		Semester 1		Semester 2		
Semester 1	<b>CHEE3005</b>	Reaction Engineering	2	<b>BIOC3000</b>	Structural & Synthetic Biology	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
Semester 2	<b>CHEE3020</b>	Process Systems Analysis	2	<b>BIOC3005</b>	Molecular Systems Biology	2
		Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
Year 5		Semester 1		Semester 2		
Semester 1	<b>CHEE4002</b>	Risk in Process Industries	2	<b>BIOE4020</b>	Bioprocess Engineering	2
	<b>ENGG4900</b>	Professional Practice and the Business Environment	2		Level 2 course <sup>2</sup> from BBiotech course list or Level 3 course from extended major list (MICR3003 <sup>4</sup> )	2
Semester 2	<b>CHEE4001</b>	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			

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

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

<sup>3</sup> Choose 2 units from MICR2000, SCIE2100 (Recommend SCIE2100)

<sup>4</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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## Bachelor of Engineering (Honours) / Bachelor of Biotechnology



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### 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						
	Semester 2	<a href="#">ENGG1100</a>	Professional Engineering	2			
		<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
	<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2				
	<a href="#">BIOL1020</a>	Genes, Cells & Evolution	2				
Year 2	Semester 1						
	Semester 2	<a href="#">ENGG1001</a>	Programming for Engineers	2	<b>BIOL1030</b>	Biodiversity and the Environment	2
		<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		<a href="#">CHEM1100</a>	Chemistry 1	2			
Semester 2	<a href="#">CHEE2001</a>	Process Principles	2	<b>BIOT2002</b>	Introduction to Biotechnology	2	
	<a href="#">BIOL1040</a>	Cells to Organisms	2	<b>Level 2 Course</b>	Level 2 course from extended major list (BIOL2203, CHEM2003, MICR2000, MICR2001)	2	
Year 3	Semester 1						
	Semester 2	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2	<b>BIOC2000</b>	Biochemistry & Molecular Biology	2
		<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2			
		<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2			
Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2	<b>BIOL2202</b>	Genetics	2	
	<a href="#">CHEE2030</a>	Chemical Thermodynamics	2				
	<a href="#">CHEE2040</a>	Heat and Mass Transfer	2				

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Year 4	Semester 1	<b>CHEE3004</b>	Unit Operations	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
		<b>CHEE3005</b>	Reaction Engineering	2	<b>Level 2 Course</b>	Level 2 course from extended major list (BIOL2200, FOOD2000)	2
	Semester 2	<b>CHEE3007</b>	Process Modelling & Dynamics	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
		<b>CHEE3020</b>	Process Systems Analysis	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3011 <sup>2</sup> , BIOL3320 <sup>2</sup> , FOOD3008 <sup>2</sup> )	2
Year 5	Semester 1	<b>CHEE4002</b>	Risk in Process Industries	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> , BIOL3003 <sup>2</sup> , BIOL3201 <sup>2</sup> , BIOL3209 <sup>2</sup> )	2
		<b>ENGG4900</b>	Professional Practice and the Business Environment	2	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> , BIOL3003 <sup>2</sup> , BIOL3201 <sup>2</sup> , BIOL3209 <sup>2</sup> )	2
	Semester 2	<b>CHEE4001</b>	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	<b>Level 3 Course</b>	Level 3 course from extended major list (BIOL3213 <sup>1</sup> , BIOL3303 <sup>1</sup> , FOOD3023 <sup>1</sup> , BIOL3003 <sup>2</sup> , BIOL3201 <sup>2</sup> , BIOL3209 <sup>2</sup> )	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2						

<sup>1</sup> Complete at least 2 units from BIOL3213, BIOL3303 and FOOD3023

<sup>2</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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

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Year 4	Semester 1	<b>CHEE3004</b>	Unit Operations	2	<b>CHEM2054</b>	Experimental Chemistry 1	2
		<b>CHEE3005</b>	Reaction Engineering	2	<b>CHEM2050</b>	Intermediate Chemistry 1	2
	Semester 2	<b>CHEE3007</b>	Process Modelling & Dynamics	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3011 <sup>1</sup> , CHEM3020 <sup>2</sup> , CHEM3030 <sup>2</sup> )	2
Year 5	Semester 1	<b>CHEE4002</b>	Risk in Process Industries	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
		<b>ENGG4900</b>	Professional Practice and the Business Environment	2	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3001 <sup>1</sup> , CHEM3010 <sup>1</sup> , CHEM3004 <sup>2</sup> )	2
	Semester 2	<b>CHEE4001</b>	Process Engineering Design Project	4	<b>CHEM3016</b>	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	<b>Level 3 Course</b>	Level 3 course from extended major list (CHEM3001 <sup>1</sup> , CHEM3010 <sup>1</sup> , CHEM3004 <sup>2</sup> )	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
	Semester 2						

<sup>1</sup> Complete 2 units from CHEM3001, CHEM3010, CHEM3011

<sup>2</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.



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### Semester 2 Commencement | Full Time Study Planner

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

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Year 4	Semester 1	<b>CHEE3004</b>	Unit Operations	2	<b>BIOM3401</b>	Systems Pharmacology	2
		<b>CHEE3005</b>	Reaction Engineering	2	<b>CHEM2050</b>	Intermediate Chemistry 1	2
Year 4	Semester 2	<b>CHEE3007</b>	Process Modelling & Dynamics	2	<b>BIOT3004</b>	Commercialisation of Biotechnology Products	2
		<b>CHEE3020</b>	Process Systems Analysis	2	<b>BIOM3402</b>	Experimental Pharmacology	2
Year 5	Semester 1	<b>CHEE4002</b>	Risk in Process Industries	2	<b>BIOT3009</b>	Quality Management Systems in Biotechnology	2
		<b>ENGG4900</b>	Professional Practice and the Business Environment	2			
			Chemical Engineering Breadth Elective or Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
Year 5	Semester 2	<b>CHEE4001</b>	Process Engineering Design Project	4	<b>CHEM3020</b>	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	<b>BIOT3002</b>	Drug Design & Development	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2			

<sup>1</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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### 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						
	Semester 2	<a href="#">ENGG1100</a>	Professional Engineering	2			
		<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
		<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2			
		<a href="#">CHEM1100</a>	Chemistry 1	2			
Year 2	Semester 1	<a href="#">ENGG1001</a>	Programming for Engineers	2			
		<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		<a href="#">BIOL1020</a>	Genes, Cells & Evolution	2			
		<a href="#">CHEM1200</a>	Chemistry II	2			
	Semester 2	<a href="#">CHEE2001</a>	Process Principles	2	<a href="#">BIOL1040</a>	Cells to Organisms	2
				<a href="#">BIOL2202</a>	Genetics	2	
				<a href="#">BIOT2002</a>	Issues in Biotechnology	2	
Year 3	Semester 1	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2	<a href="#">BIOC2000</a>	Biochemistry & Molecular Biology	2
		<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2			
		<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2			
	Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2	<a href="#">MICR2000</a>	Microbiology & Immunology	2
		<a href="#">CHEE2030</a>	Chemical Thermodynamics	2			
		<a href="#">CHEE2040</a>	Heat and Mass Transfer	2			

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Year	Semester	Engineering Component			Biotechnology Component		
		Course Code	Course Name	Units	Course Code	Units	
Year 4	Semester 1	CHEE3004	Unit Operations	2	Level 2 Course	Level 2 course from extended major list (BIOL2200) <sup>1</sup>	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 <sup>2</sup> , BIOC3003 <sup>3</sup> , BIOL3003 <sup>3</sup> , BIOL3303 <sup>3</sup> , MICR3002 <sup>3</sup> , MICR3003 <sup>3</sup> )	2
		ENGG4900	Professional Practice and the Business Environment	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 <sup>2</sup> , BIOC3005 <sup>3</sup> , BIOC3006 <sup>3</sup> , BIOL3006 <sup>3</sup> , CHEM3020 <sup>3</sup> , MICR3004 <sup>3</sup> , PARA3002 <sup>3</sup> )	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 <sup>2</sup> , BIOC3003 <sup>3</sup> , BIOL3003 <sup>3</sup> , BIOL3303 <sup>3</sup> , MICR3002 <sup>3</sup> , MICR3003 <sup>3</sup> )	2
			Chemical Engineering Advanced Electives or Chemical Engineering Research Electives	2	Level 3 Course	Level 3 course from extended major list (MICR3001 <sup>2</sup> , BIOC3005 <sup>3</sup> , BIOC3006 <sup>3</sup> , BIOL3006 <sup>3</sup> , CHEM3020 <sup>3</sup> , MICR3004 <sup>3</sup> , PARA3002 <sup>3</sup> )	2

<sup>1</sup> Students wanting to complete CHEM2052 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 CHEM2052 in Year 4, Sem 2. However keeping in mind that BIOL2200 is a prerequisite for BIOL3006 and CHEM2052 is a prerequisite for CHEM3020.

<sup>2</sup> Complete at least 2 units from BIOC3000 and MICR3001

<sup>3</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.

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### 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	<a href="#">ENGG1100</a>	Professional Engineering	2			
		<a href="#">MATH1051</a> or <a href="#">MATH1071</a>	Calculus & Linear Algebra I or Advanced Calculus & Linear Algebra I	2			
		<a href="#">ENGG1500</a>	Thermodynamics: Energy and the Environment	2			
	<a href="#">BIOL1020</a>	Genes, Cells & Evolution	2				
Year 2	Semester 1	<a href="#">ENGG1001</a>	Programming for Engineers	2	<b>Elective course</b>	Course <sup>1</sup> from BBiotech course list	
		<a href="#">MATH1052</a> or <a href="#">MATH1072</a>	Multivariate Calculus & Ordinary Differential Equations or Advanced Multivariate Calculus & Ordinary Differential Equations	2			
		<a href="#">CHEM1100</a>	Chemistry 1	2			
	Semester 2	<a href="#">CHEE2001</a>	Process Principles	2	<a href="#">BIOL2202</a>	Genetics	2
		<a href="#">CHEE2030</a>	Chemical Thermodynamics	2	<a href="#">BIOT2002</a>	Issues in Biotechnology	2
Year 3	Semester 1	<a href="#">CHEE2003</a>	Fluid & Particle Mechanics	2	<b>BIOC2000</b>	Biochemistry & Molecular Biology	
		<a href="#">CHEE2010</a>	Engineering Investigation & Statistical Analysis	2			
		<a href="#">CHEM2056</a>	Physical Chemistry for Engineering	2			
	Semester 2	<a href="#">CHEE2020</a>	Process Equipment and Control Systems	2	<b>Level 2 Course</b>	Level 2 course from extended major list (MICR2000) <sup>3</sup>	2
		<a href="#">CHEE2040</a>	Heat and Mass Transfer	2	<a href="#">BIOT3004</a>	Commercialisation of Biotechnology Products	2

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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 <sup>3</sup> 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
		ENGG4900	Professional Practice and the Business Environment	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			

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

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

<sup>3</sup> 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.

<sup>4</sup> 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/manage-your-program/bachelor-engineering-honours/dual-degree-program-structure> for further details about how to choose these courses.