

Bachelor of Engineering (Honours)

Chemical Engineering

Biomedical Engineering Major

Undergraduate Program - Consists of 64 units

Suggested Study Plans from **2025** Commencement Onwards



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Program and Course requirements

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

Prerequisite Courses

Students are expected to be aware if a course has prerequisites and must have successfully completed any required prerequisites before enrolling. A prerequisite course provides the foundational knowledge needed to progress to the next course and may be high school subjects or university-level study/courses.

Prerequisites are listed on the course profile and the course page on the [Programs and Courses website](#).

Electives

Depending on your program, you may need to complete compulsory and elective courses.

Electives are courses you can choose, while compulsory courses are mandatory courses that you must study. You must successfully complete all the required units of elective and compulsory courses to meet the program requirements. Your program rules outline how many electives you can study and the types of electives you can choose from.

Search [Programs and Courses website](#) for your program to confirm program rules and elective options.

Academic Advice

Academic advisors provide specialist help in course selection and can look at your individual study history to make personalised recommendations on your study plan.

If you need assistance with your program, you can [seek Academic Advice](#).

Additional Information

Course profiles are underlined and hyperlinked to their relevant course page which can be accessed by clicking the underlined text.

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The following is a colour reference guide, including notes around course offerings and units:

Core Courses	Specialisation	Program Electives
General Electives	Major	



Course offered in both Semester 1 & 2

X units

This course does not consist of 2 units

YEAR 1

Sem 1 Feb	ENGG1100 Professional Engineering	MATH1051 Calculus and Linear Algebra I	CHEM1100 Chemistry 1	GENERAL ELECTIVE OR PROGRAM ELECTIVE
Sem 2 July	ENGG1001 Programming for Engineers	MATH1052 Multivariate Calc & Ordinary Differential Equations	ENGG1500 Thermodynamics: Energy and the Environment	GENERAL ELECTIVE OR PROGRAM ELECTIVE

YEAR 2

Sem 1 Feb	CHEE2001 Process Principles	CHEE2003 Fluid and Particle Mechanics	CHEE2010 Engineering Investigation and Statistical Analysis	CHEM2056 Physical Chemistry for Engineering
Sem 2 July	CHEE2020 Process Equipment and Control Systems	CHEE2030 Chemical Thermodynamics	CHEE2040 Heat and Mass Transfer	PROGRAM ELECTIVE

YEAR 3

Sem 1 Feb	CHEE3004 Unit Operations	CHEE3005 Reaction Engineering	BIOE1001 Principles of Biomedical and Bioprocess Engineering	PROGRAM ELECTIVE
Sem 2 July	CHEE3007 Process Modelling and Control	CHEE3020 Process Systems Analysis	BIOM1052 Integrated Anatomy and Physiology	BIOE3001 Quantitative Methods in Biomedical Engineering

YEAR 4

Sem 1 Feb	CHEE4002 Risk in Process Industries	BIOE4020 Bioprocess Engineering	BIOE6034 Cell and Tissue Engineering	BIOE6901 Medical Device Engineering
Sem 2 July	CHEE4001 Process Engineering Design Project	4 units	ENGG4902¹ Professional Practice and the Business Environment B	BIOE4305 Biomaterials: Materials in Medicine

NOTES

¹ Offered in Semester 1 under the course code [ENGG4901, Professional Practice and the Business Environment A](#)

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

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The following is a colour reference guide, including notes around course offerings and units:

Core Courses	Specialisation	Program Electives
General Electives	Major	



Course offered in both Semester 1 & 2

X units

This course does not consist of 2 units

YEAR 1

Sem 2 July	ENGG1100 Professional Engineering	MATH1051 Calculus and Linear Algebra I	CHEM1100 Chemistry 1	GENERAL ELECTIVE OR PROGRAM ELECTIVE
Sem 1 Feb	ENGG1001 Programming for Engineers	MATH1052 Multivariate Calc & Ordinary Differential Equations	ENGG1500 Thermodynamics: Energy and the Environment	GENERAL ELECTIVE OR PROGRAM ELECTIVE

YEAR 2

Sem 2 July	CHEE2001 Process Principles	CHEE2020 Process Equipment and Control Systems	CHEE2030 Chemical Thermodynamics	CHEE2040 Heat and Mass Transfer
Sem 1 Feb	CHEE2003 Fluid and Particle Mechanics	CHEE2010 Engineering Investigation and Statistical Analysis	CHEM2056 Physical Chemistry for Engineering	BIOE1001 Principles of Biomedical and Bioprocess Engineering

YEAR 3

Sem 2 July	CHEE3007 Process Modelling and Control	CHEE3020 Process Systems Analysis	BIOM1052 Integrated Anatomy and Physiology	BIOE3001 Quantitative Methods in Biomedical Engineering
Sem 1 Feb	CHEE3004 Unit Operations	CHEE3005 Reaction Engineering	PROGRAM ELECTIVE	BIOE4020 Bioprocess Engineering

YEAR 4

Sem 2 July	CHEE4001 Process Engineering Design Project	4 units	BIOE4305 Biomaterials: Materials in Medicine	PROGRAM ELECTIVE
Sem 1 Feb	ENGG4901¹ Professional Practice and the Business Environment A	CHEE4002 Risk in Process Industries	BIOE6034 Cell and Tissue Engineering	BIOE6901 Medical Device Engineering

NOTES

¹ Offered in Semester 2 under the course code [ENGG4902, Professional Practice and the Business Environment B](#)

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