Bachelor of Engineering (Hons)/ Bachelor of Biotechnology(Hons) 2019 Dual Degree Program Structure

It is important that you read and understand the following information.

To be eligible to enrol in a dual degree program you must ensure that you satisfy the entry requirements for both programs.

Once enrolled it is your responsibility to ensure that you complete all the requirements for each section 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. Further information can be found in the Official Rules and Course lists under the **Program Rules and Requirements** link for each program in the Programs and Courses website: https://my.uq.edu.au/programs-courses/

You are required to submit this program plan for approval by both faculties. Please contact the relevant Faculty for advice.

Please note: 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.

PROGRAM GUIDELINES

You must complete a total of 88 units for this dual degree program.

Restrictions apply to enrolment in ECON1050, ECON1310, STAT1201, STAT1301. Details of specific course restrictions are available at: http://www.eait.uq.edu.au/be-dual-programs and https://www.eait.uq.edu.au/bachelor-engineering-electives

Bachelor of Engineering (Hons) Requirements:

- 52 units from the BE(Hons) course list, comprising–
  - (i) a major in *chemical engineering* which must include CHEE4020 from part B4.

- BE(Hons)) students should discuss their enrolment plan with an academic adviser.
- The list of academic advisers is available at - http://www.eait.uq.edu.au/eng-academic-advice

Bachelor of Biotechnology (Hons) Requirements:

- 36 units from the BBiotech(Hons)(Bioprocess Technology) course list, comprising–
  - (i) 20 units from part A of the *Bioprocess Technology* major including all compulsory courses except CHEE2001, CHEE4020, CHEM1100, CHEM1200, MATH1051, MATH1052 and STAT1201; and
  - (ii) Either:
    - (A) 16 units from part B; or
    - (B) 16 units from part C.

- Students who complete CHEE4001 in the BE(Hons) will be exempt from the BIOT3004 requirement in the BBiotech(Hons).
- Study in other fields of the BBiotech is not available under these dual degree rules.
- Please note that this dual degree requires careful planning and it is strongly recommended that you discuss the BBiotech(Hons) requirements with the Program Coordinator before commencing. Please contact the Faculty of Science on (07) 3365 1888 for more information.

updated 24/09/2018

BACHELOR OF ENGINEERING (HONS)/BACHELOR OF BIOTECHNOLOGY DUAL DEGREE PROGRAM STRUCTURE

You can use this outline to plan your program structure.

BACHELOR OF ENGINEERING (HONS) (Chemical Engineering major only)		**BACHELOR OF BIOTECHNOLOGY (HONS)** (Bioprocess Technology major only)	
Please consult your academic adviser for course selection	**Units**	**Please consult your academic adviser for course selection**	**Units**
YEAR ONE		**YEAR ONE**	
Semester 1		**Semester 1**	
CHEM1100 Chemistry 1	2	BIOL1020 Genes, Cells & Evolution	2
ENGG1100 Engineering Design	2		
MATH1051 or MATH1071 Calculus & Linear Algebra I	2		
Semester 2		**Semester 2**	
ENGG1500 Engineering Thermodynamics	2		
ENGG1200 Engineering Modelling & Problem Solving	2		
MATH1052 or MATH1072 Multivariate Calculus & ODE's	2		
CHEM1200 Chemistry 2	2		
Summer Semester		***Summer Semester***	
YEAR TWO		**YEAR TWO**	
Semester 1		**Semester 1**	
CHEE2001 Process Principles	2	BIOC2000 Biochemistry & Molecular Biology	2
MATH2000 Calculus & Linear Algebra	2	2 units BBiotech(Hons) course at Level 1 or 2 that is not compulsory towards the BE(Hons) component. Suggestions: MATH1050, SCIE1000, BIOL1030 or on list BBiotech second level course.	2
Semester 2		**Semester 2**	
CHEE2010 Engineering Investigation & Statistical Analysis	2	BIOT2002 Issues in Biotechnology	2
CHEE2003 Fluid & Particle Mechanics	2		
CHEM2056 Physical Chemistry for Engineering	2		
Summer Semester		***Summer Semester***	
YEAR THREE		**YEAR THREE**	
Semester 1		**Semester 1**	
CHEE3020 Process Systems Analysis	2	BIOT3009 Quality Management Systems in Biotechnology: GMP, GLP, GCP	2
CHEE3002 Heat & Mass Transfer	2		
CHEE3003 Chemical Thermodynamics	2		
Semester 2		**Semester 2**	
CHEE3004 Unit Operations	2	BIOL2202 Genetics	2
CHEE3005 Reaction Engineering	2		
CHEE3007 Process Modelling & Dynamics	2		
Summer Semester		***Summer Semester***	
YEAR FOUR		**YEAR FOUR**	
Semester 1		**Semester 1**	
CHEE4060 Process & Control System Synthesis	2		
CHEE4009 Transport Phenomena	2		
CHEE4002 Impact and Risk in the Process Industries	2		
CHEE4020 Biomolecular Engineering	2		

Semester 2		**Semester 2**	
CHEE4001 Process Engineering Design Project ENGG4900 Professional Practice and the Business Environment	4 2	CHEM2052 Chemical Biology; **or** CHEM2060 Intermediate Chemistry 2; **or** MICR2000 Microbiology & Immunology	2
Summer Semester		***Summer Semester***	
YEAR FIVE		**YEAR FIVE**	
Semester 1		**Semester 1**	
2 units Part B4-Advanced Chem Eng elective (other than CHEE4020)	2	BIOL3004 Genomics and Bioinformatics **4 units from below**: BIOC3005 Molecular Systems Biology BIOL3003 Advanced Immunology BIOL3011 Plant Microbe & Insect Interactions BIOL3014 Advanced Bioinformatics CHEE3002 Heat & Mass Transfer CHEE3003 Chemical Thermodynamics CHEE3301 Polymer Engineering CHEE4002 Impact Risk in the Process Industries CHEE4012 Industrial Wastewater & Solid Waste Management CHEE4028 Metabolic Engineering MATH3104 Mathematical Biology MICR3001 Microbes & Human Health MICR3002 Virology MICR3003 Molecular Microbiology MICR3004 Microbial Genomics PARA3002 Biomedical Parasitology	2 2 2
Semester 2		**Semester 2**	
		16 units from the BBiotech(Hons) Part B or Part C Course list over two semesters. **Part B** 8 units from BIOT4002 Literature Review BIOT4020 Biotech Project A And/or any late year course in Part A of the BBiotech(Hons) list or other courses approved by the Program Coordinator. Or **Part C** BIOT6122 Research Project in Biotechnology	 8 Or 8

YEAR SIX		YEAR SIX	
Semester 1		**Semester 1**	
		Part B RBUS6911 Commerce Honours seminar BIOT4070 Biotech Res Project 2 units from Any late year course in Part A of the BBiotech(Hons) list or other courses approved by the Program Coordinator. Or **Part C** RBUS6911 Commerce Honours Seminar BIOT6122 Research Project in Biotechnology	 2 4 2 Or 2 6
Total (refer to BE(Hons)/BBiotech(Hons) rules	**52**	**Total units (refer to BBiotech(Hons) rules for details on field of study)**	**36**

Please Note: *Summer Semester is optional.*

[1]: Replace with MATH 1050 if required and defer MATH1051 to the following semester and MATH1052 to summer semester.

[2]: Replace with CHEM1090 or PHYS1171 if required and defer CHEM1100 to semester 2 and CHEM1200 to summer semester.

Students who complete CHEE4001 in the BE(Hons) will be exempt from the BIOT3004 requirement in the BBiotech(Hons)

You should meet with an advisor to discuss a more detailed plan.

Please ensure your BE(Hons)and BBiotech majors are correctly listed on mySI-net