Engineering

Engineering (Honours) / Biomedical Engineering (3768)

Bioinformatics Engineering (BINFAH)

T1 Entry 2025 Sample Plan



	Year 1				
	PHYS1111 Fundamentals of Physics OR PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A				
Term 1	DESN1000 Engineering Design and Innovation				
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A				
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B				
Term 2	COMP1511 Programming Fundamentals				
	MATH1081 Discrete Mathematics				
	COMP1521 Computer Systems Fundamentals				
Term 3	BABS1201 Molecules, Cells and Genes				

	Year 2					
Term 1	COMP1531 Software Engineering Fundamentals					
	COMP2521 Data Structures and Algorithms					
	CHEM1011 Chemistry 1A <u>OR</u> CHEM1031 (Higher) Chemistry 1A					
Term 2	DESN2000 Engineering Design & Professional Practice					
	COMP2041 Software Construction: Techniques and Tools					
	COMP2511 Object-Oriented Design and Programming					
Term 3	BINF2010 Introduction to Bioinformatics					
	BIOC2201 Principles of Molecular Biology (Advanced)					

	Year 3				
Term 1	COMP3121 Algorithms and Programming Techni ques				
	BABS3121 Molecular Biology of Nucleic Acids				
	PHSL2121 Principles of Physiology A				
Term	MATH2801 Theory of Statistics <u>OR</u> MATH2901 Higher Theory of Statistics				
	BINF3010 Applied Bioinformatics				
	BABS2202 Molecular Cell Biology 1 OR BIOC2101 Principles of Biochemistry (Advanced)				
	BINF3020 Computational Bioinformatics				
Term 3	Free Elective				

	Year 4					
	COMP3311 Database Systems					
Term 1	Discipline Elective					
	Biomedical Engineering Course					
Term 2	Biomedical Engineering Course					
	Biomedical Engineering Course					
	COMP4920 Professional Issues and Ethics in Information Technology					
Term 3	Biomedical Engineering Course					
	Biomedical Engineering Course					

Year 5								
	BIOM4951 Research Thesis A (4 UoC)							
Term 1	BIOM9410 Regulatory Requirements of Biomedical Technology							
	Biomedical Engineering Course							
	BIOM4952 Research Thesis B (4 UoC)							
Term 2	BIOM9420 Clinical Laboratory Science							
	Biomedical Engineering Course							
	BIOM4953 Research Thesis C (4 UoC)							
Term 3	Discipline Elective							
	*Additional Elective							

NOTES

Compulsory Training Component: There is a program requirement of 60 days approved Industrial Training ENGG4999. *BIOM1010 Engineering in Medicine and Biology is a recommended first year elective

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Engineering

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Bioinformatics Engineering (BINFAH)

T2 Entry 2025 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 2	COMP1511 Programming Fundamentals	Term 2	CHEM1011 Chemistry 1A		DESN2000 Engineering Design & Professional Practice	Term 2	Discipline Elective Course		BIOM4951 Research Thesis A (4 UoC)
	MATH1131 Mathematics 1A		COMP2041 Software Construction: Techniques & Tools	Term 2	MATH2801 Theory of Statistics <u>OR</u> MATH2901 Higher Theory of Statistics		Discipline Elective Course	Term 2	BIOM9420 Clinical Laboratory Science
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A		COMP1521 Computer Systems Fundamentals		BINF3010 Applied Bioinformatics		Biomedical Engineering Course		Biomedical Engineering Course
	BABS1201 Molecules, Cells and Genes	Term 3	BINF2010 Introduction to Bioinformatics		BABS2202 Molecular Cell Biology 1 OR BIOC2101 Principles of	Term 3	COMP4920 Professional Issues and Ethics in Information Technology		BIOM4952 Research Thesis B (4 UoC)
Term 3	MATH1231 Mathematics 1B		BIOC2201 Principles of Molecular Biology (Advanced)	Term 3	Biochemistry (Advanced) BINF3020		Biomedical Engineering Course	Term 3	Biomedical Engineering Course
	DESN1000 Engineering Design and Innovation		COMP2521 Data Structures and Algorithms		Computational Bioinformatics				Biomedical Engineering Course
	MATH1081 Discrete Mathematics	Term 1	COMP2511 Object-Oriented Design and Programming	BABS3121 Molecular Biology of Nucleic Acids		BIOM9410 Regulatory Requirements of Biomedical Technology		BIOM4953 Research Thesis C (4 UoC)	
Term 1	COMP1531 Software Engineering Fundamentals		PHSL2121 Principles of Physiology A	Term 1	COMP3311 Database Systems	Term 1	Biomedical Engineering Course	Term 1	Free Elective
					COMP3121 Algorithms and Programming Techniques		Biomedical Engineering Course		*Additional Elective

NOTES

Compulsory Training Component: There is a program requirement of 60 days approved Industrial Training ENGG4999. *BIOM1010 Engineering in Medicine and Biology is a recommended first year elective

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Engineering

Engineering (Honours) / Biomedical Engineering (3768)

Bioinformatics Engineering (BINFAH)

T3 Entry 2025 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 3	COMP1511 Programming Fundamentals	Term 3	BIOC2201 Principles of Molecular Biology (Advanced)		COMP2511 Object-Oriented Design and Programming	Term 3	COMP4920 Professional Issues and Ethics in Information Technology	Term 3	BIOM4951 Research Thesis A (4 UoC)
	DESN1000 Engineering Design and Innovation		MATH1081 Discrete Mathematics	Term 3	BINF3020 Computational Bioinformatics		Discipline Elective Course		Biomedical Engineering Course
	BABS1201 Molecules, Cells and Genes		BINF2010 Introduction to Bioinformatics		BABS2204 Genetics OR BABS2264 Genetics (Advanced Level)		Biomedical Engineering Course		Biomedical Engineering Course
Term 1	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A	Term 1	COMP2521 Data Structures and Algorithms		BABS3121 Molecular Biology of Nucleic Acids	Term 1	Biomedical Engineering Course	Term 1	BIOM4952 Research Thesis B (4 UoC)
	PHYS1111 Fundamentals of Physics OR PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A		COMP1531 Software Engineering Fundamentals	Term 1	COMP3311 Database Systems		Biomedical Engineering Course		BIOM9410 Regulatory Requirements of Biomedical Technology
					PHSL2121 Principles of Physiology A		Discipline Elective Course		Biomedical Engineering Course
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B	Term 2	COMP2041 Software Construction: Techniques and Tools	Term 2	COMP3121 Algorithms and Programming Techniques	Term 2	Biomedical Engineering Course	Term 2	BIOM4953 Research Thesis C (4 UoC)
Term 2	COMP1521 Computer Systems Fundamentals		DESN2000 Engineering Design & Professional Practice		MATH2801 Theory of Statistics <u>OR</u> MATH2901 Higher Theory of Statistics		Free Elective Course		BIOM9420 Clinical Laboratory Science
	CHEM1011 Chemistry 1A		BINF3010 Applied Bioinformatics						*Additional Elective

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Compulsory Training Component: There is a program requirement of 60 days approved Industrial Training ENGG4999.

*BIOM1010 Engineering in Medicine and Biology is a recommended elective

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