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					
	BINF2010 Introduction to Bioinformatics					
Term 3	BIOC2201 Principles of Molecular Biology (Advanced)					

	Year 3					
	COMP3121 Algorithms and Programming Techni ques					
Term 1	BABS3121 Molecular Biology of Nucleic Acids					
	PHSL2121 Principles of Physiology A					
	MATH2801 Theory of Statistics <u>OR</u> MATH2901 Higher Theory of Statistics					
Term 2	BINF3010 Applied Bioinformatics					
	BABS2202 Molecular Cell Biology 1 OR BIOC2101 Principles of Biochemistry (Advanced)					
	BINF3020 Computational Bioinformatics					
Term 3	Free Elective					

	Year 4				
Term 1	COMP3311 Database Systems				
	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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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		Discipline Elective Course		BIOM4951 Research Thesis A (4 UoC)
	MATH1131 Mathematics 1A		COMP2041 Software Construction: Techniques & Tools Term 2 MATH2801 Theory of Statistics OR 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		COMP4920 Professional Issues and Ethics in Information Technology		BIOM4952 Research Thesis B (4 UoC)
Term 3	MATH1231 Mathematics 1B		Term 3 BIOC2201 Principles of Molecular Biology (Advanced) 3 COMP2521 Data Structures and Algorithms	Principles of Molecular Biology (Advanced) Term Biology (Advanced) BINF3020	Term 3	Biomedical Engineering Course	Term 3	Biomedical Engineering Course	
	DESN1000 Engineering Design and Innovation			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		Term PHSL2121 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

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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	
	COMP1511 Programming Fundamentals		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)
Term 3	DESN1000 Engineering Design and Innovation	Term 3	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
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A		COMP2521 Data Structures and Algorithms		BABS3121 Molecular Biology of Nucleic Acids		Biomedical Engineering Course	Term 1	BIOM4952 Research Thesis B (4 UoC)
Term 1	COMP1531 Software Engineering Fundamentals	Term 1	PHSL2121 Principles of Physiology A	Term 1	COMP3311 Database Systems	Term 1	Biomedical Engineering Course		BIOM9410 Regulatory Requirements of Biomedical Technology
	PHYS1111 Fundamentals of Physics OR PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A								Biomedical Engineering Course
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B		COMP2041 Software Construction: Techniques and Tools		COMP3121 Algorithms and Programming Techniques		Biomedical Engineering Course		BIOM4953 Research Thesis C (4 UoC)
Term 2	COMP1521 Computer Systems Fundamentals	Term 2	DESN2000 Engineering Design & Professional Practice	Term 2	MATH2801 Theory of Statistics <u>OR</u> MATH2901 Higher Theory of Statistics	Term 2	Free Elective Course	Term 2	BIOM9420 Clinical Laboratory Science
	CHEM1011 Chemistry 1A		BINF3010 Applied Bioinformatics		Discipline Elective 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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