

Bachelor of Engineering (Engineering Science Programme)

Recommended Semester Schedule for Poly-intake Students

For Cohort AY2024/2025

(Assuming the Maths bridging course MA1301 is required plus DTK1234 and EG1311 are exempted)

Semester 1		Semester 2	
CS1010E Programming Methodology	4	GEA1000 Quantitative Reasoning	4
ESP1111 Engineering Principles In-Action	4	ESP2111 Sensor System Electronics	4
MA1301 Introductory Mathematics*	4	PF1101 Fundamentals of Project Management or PF1101A Project Management and Finance	4
PC1201 Fundamentals of Physics*	4	MA1508E Linear Algebra for Engineering	4
GE course / Unrestricted Elective	4	ESP2110 Design Project	4
Sub-total	20	Sub-total	20
Semester 3		Semester 4	
EG2501 / CDE2501 Liveable Cities	4	ESP2107 Numerical Methods and Statistics	4
CDE2000 Creating Narratives#	4	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4
IE2141 Systems Thinking and Dynamics#	4	PC2130B Applied Quantum Physics	4
MA1511 Engineering Calculus	2	PC3235B Applied Solid State Physics	4
MA1512 Differential Equations for Engineering	2	EG2401A Engineering Professionalism	2
ME2121 Engineering Thermodynamics & Heat Transfer	4	Choose <i>ONE</i>	
GE course / Unrestricted Elective	4	* PC2020 Electromagnetics for Electrical Engineers	4
		* EE2023 Signals and Systems	
Sub-total	24	Sub-total	22
Semester 5		Semester 6	
ESP4901 Research Project	4	ESP4901 Research Project	4
ESP2106 Principles of Continua	4	ES2631 Critique and Communication of Thinking and Design	4
ESP3903 Major Design Project	4	GE course / Unrestricted Elective	4
GE course / Unrestricted Elective	4	GE course / Unrestricted Elective	4
GE course / Unrestricted Elective	4	GE course / Unrestricted Elective	4
Sub-total	20	Sub-total	20

If DTK1234 and EG1311 are required, follow the A-level/IB/NUSHS students schedule.

[GE course - General Education Pillar](#)

[*Bridging courses](#)

[Advanced Placement Credits & Exemptions for cohort AY2024/2025](#)

#Read 1 from each basket (to complete 2):

Basket A: EE3331C or ME2142 or ME3142

Basket B: EE2023 or PC2020

Basket C: ESP3201A

These courses can be used to replace the Systems Thinking, Sustainable Futures and Creating Narratives Pillar:

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For Cohort AY2024/2025

(Assuming the Maths bridging course MA1301 is NOT required plus DTK1234 and EG1311 are exempted)

Semester 1		Semester 2	
CS1010E Programming Methodology	4	GEA1000 Quantitative Reasoning	4
ESP1111 Engineering Principles In-Action	4	ESP2111 Sensor System Electronics	4
MA1511 Engineering Calculus	2	PF1101 Fundamentals of Project Management or PF1101A Project Management and Finance	4
MA1512 Differential Equations for Engineering	2	MA1508E Linear Algebra for Engineering	4
PC1201 Fundamentals of Physics*	4	ESP2110 Design Project 2	4
GE course / Unrestricted Elective	4		
Sub-total	20	Sub-total	20
Semester 3		Semester 4	
EG2501 / CDE2501 Liveable Cities	4	ESP2107 Numerical Methods and Statistics	4
EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4	PC2130B Applied Quantum Physics	4
CDE2000 Creating Narratives#	4	PC3235B Applied Solid State Physics	4
IE2141 Systems Thinking and Dynamics#	4	EG2401A Engineering Professionalism	2
ME2121 Engineering Thermodynamics & Heat Transfer	4	Choose ONE	
		* PC2020 Electromagnetics for Electrical Engineers	4
		* EE2023 Signals and Systems	
		GE course / Unrestricted Elective	4
Sub-total	20	Sub-total	22
Semester 5		Semester 6	
ESP4901 Research Project	4	ESP4901 Research Project	4
ESP2106 Principles of Continua	4	ES2631 Critique and Communication of Thinking and Des	4
ESP3903 Major Design Project	4	GE course / Unrestricted Elective	4
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Sub-total	20	Sub-total	20

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[GE course - General Education Pillar](#)

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