

Bachelor of Engineering (Engineering Science Programme)

Recommended Semester Schedule for Poly-intake Students

For Cohort AY2021/2022

(Assuming the Maths bridging course MA1301 is required)

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	4
GE course / Unrestricted Elective	4	MA1508E Linear Algebra for Engineering	4
GE course / Unrestricted Elective	4	ESP2110 Design Project 2	4
Sub-total	20	Sub-total	20
Semester 3		Semester 4	
ES2631 Critique and Communication of Thinking and Design	4	EG2501 /CDE2501 Liveable Cities	4
IE2141 Systems Thinking and Dynamics	4	EE2211 Introduction to Machine Learning	4
ESP2107 Numerical Methods and Statistics	4	ESP3903 Major Design Project	4
MA1511 Engineering Calculus	2	PC3235B Applied Solid State Physics	4
MA1512 Differential Equations for Engineering	2	EG2401A Engineering Professionalism	2
GE course / Unrestricted Elective	4	Choose ONE	
ME2121 Engineering Thermodynamics & Heat Transfer	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	CDE2000 Creating Narratives	4
GE course / Unrestricted Elective	4	PC2130B Applied Quantum Physics	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

[GE course - General Education Pillar](#)

If you have a diploma from an approved programme in the polytechnics, you may receive a total of 38 Units of Advanced Placement Credits (APCs) in the following courses:

Unrestricted Elective courses: 20 Units

EG3611P Industrial Attachment: 10 Units

EG1311 Design and Make: 4 Units

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For Cohort AY2021/2022

(Assuming the Maths bridging course MA1301 is NOT required)

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	4
MA1512 Differential Equations for Engineering	2	MA1508E Linear Algebra for Engineering	4
GE course / Unrestricted Elective	4	ESP2110 Design Project 2	4
GE course / Unrestricted Elective	4		
Sub-total	20	Sub-total	20
Semester 3		Semester 4	
ES2631 Critique and Communication of Thinking and Design	4	EG2501 / CDE2501 Liveable Cities	4
IE2141 Systems Thinking and Dynamics	4	EE2211 Introduction to Machine Learning	4
ESP2107 Numerical Methods and Statistics	4	ESP3903 Major Design Project	4
GE course / Unrestricted Elective	4	PC3235B Applied Solid State Physics	4
ME2121 Engineering Thermodynamics & Heat Transfer	4	EG2401A Engineering Professionalism	2
		Choose ONE	
		* PC2020 Electromagnetics for Electrical Engineers	4
		* EE2023 Signals and Systems	
Sub-total	20	Sub-total	22
Semester 5		Semester 6	
ESP4901 Research Project	4	ESP4901 Research Project	4
ESP2106 Principles of Continua	4	CDE2000 Creating Narratives	4
GE course / Unrestricted Elective	4	PC2130B Applied Quantum Physics	4
GE course / Unrestricted Elective	4	GE course / Unrestricted Elective	4
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Sub-total	20	Sub-total	20

[GE course - General Education Pillar](#)

If you have a diploma from an approved programme in the polytechnics, you may receive a total of 38 Units of Advanced Placement Credits (APCs) in the following courses:

Unrestricted Elective courses: 20 Units

EG3611P Industrial Attachment: 10 Units

EG1311 Design and Make: 4 Units

DTK1234 Design Thinking: 4 Units