

Bachelor of Engineering (Engineering Science Programme)

Recommended Semester Schedule for A-level/IB/NUSHS Students

For Cohort AY2020/2021 and AY2019/2020

Semester 1	Unit	Semester 2	Unit	Year 1 Special Terms	Unit
CS1010E Programming Methodology	4	GER1000 Quantitative Reasoning	4		
MA1507 Advanced Calculus	4	GEQ1000 Asking Questions	4		
PC1433 Mechanics and Waves	4	MA1508E Linear Algebra for Engineering	4		
ESP1111 Engineering Principles In-Action	4	MLE1010 Materials Engineering Principles & Practices	4		
GE course / Unrestricted Elective	4	ESP1104B Sensor System Electronics	4		
Sub-total	20	Sub-total	20	Sub-total	
Semester 3	Unit	Semester 4	Unit	Year 2 Special Terms	Unit
ESP2106 Principles of Continua	4	ESP2110 Design Project 2	4	EG3612 Vacation Industrial Attachment	6
ESP2107 Numerical Methods and Statistics	4	PC2130B Applied Quantum Physics	4		
PC2020 Electromagnetics for Electrical Engineers	4	PC2133 Applied Solid State Physics	4		
PC2134 Mathematical Mtds in Physics 1	4	ME2121 Engineering Thermodynamics & Heat Transfer	4		
GE course / Unrestricted Elective	4	ES2531 Critical Thinking and Writing	4		
Sub-total	20	Sub-total	20	Sub-total	6
Semester 5	Unit	Semester 6	Unit	Year 3 Special Terms	Unit
ESP3902 Major Design Project 1	4	ESP3903 Major Design Project 2	4		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	4		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	2		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	4		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	4		
Sub-total	20	Sub-total	20	Sub-total	
Semester 7	Unit	Semester 8	Unit	Year 4 Special Terms	Unit
ESP4901 Research Project	4	ESP4901 Research Project	4		
EG2401A Engineering Professionalism	2	GE course / Unrestricted Elective / Specialisation course	4		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	4		
GE course / Unrestricted Elective / Specialisation course	4	GE course / Unrestricted Elective / Specialisation course	4		
GE course / Unrestricted Elective / Specialisation course	4				
Sub-total	18	Sub-total	16	Sub-total	

[GE course - General Education Pillar](#)

[EG3612 - Vacation Industrial Attachment](#)

[ESP Specialisations course list](#)