Engineering Science Programme

AY2025 cohort

Accurate as of July 2025			
E	-Scholars 3-yea	ars schedule (ESP)	
	Semeste	er 0 (APT)	
EG1311 Design and Make			4
MA1505 Mathematics I (4 units. It is mapped to MA1511 which is 2 units, + 2 units to UE)		4	
MA2001 Linear Algebra I (maps to MA1508E)			4
CS1010E Programming Methodology			4
Sub-total			16
Semester 1		Semester 2	
ESP1111 Engineering Principles In-Action	4	PC2020 Electromagnetics for Electrical Engineers	4
ESP2106 Principles of Continua	4	ESP2110 Design Project	4
DTK1234 Design Thinking	4	ESP2111 Sensor System Electronics	4
UTCP #1	4	GEA1000 Quantitative Reasoning	4
UE	4	PF1101A Project Management and Finance	4
UE	4	UTCP #2	4
MA1512 Differential Equations for Engineering	2	UE	4
Sub-total	26	Sub-total	28
Semester 3		Semester 4	
ME2121 Engineering Thermodynamics & Heat Transfer EE2023 Signals and Systems* UTCP #3 (Replaces CDE2501)	4	NUS Overseas College (NOC) experience (20 units)*	
EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4		20
UE	4		
UE	4		
		4	
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Sub-total	24	Sub-total	20
Semester 5		Semester 6	
ESP4901 Research Project	4	ESP4901 Research Project	4
ESP3903 Major Design Project	4	PC2130B Applied Quantum Physics	4
ESP3201A Machine Learning in Engineering Science	4	PC3235B Applied Solid State Physics	4
EE3331C OR ME3142 Feedback Control Systems	4	ESP2107 Numerical Methods and Statistics	4
JTCP #4	4	UE	4
UE	4	UE*	2
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Sub-total	24	Sub-total	26
Grand total		Sub-total	

Notes: 1. If APT courses are not cleared, those courses (EG1311, MA1511, MA2001, CS1010E) must be cleared during the normal semesters

2. Important rules for NOC: - You MUST be in Singapore for Visa processing the semester BEFORE going to NOC.

- You MUST have cleared at least 70 units before applying to NOC 3. *If not embarking on NOC, alternate course combinations to fulfil Industrial Attachment requirement (10 units) include:

3. The temparking on Nuc., alternate course commutators to turn industrial Attachment requirement (20 units) include.
b) EG3511 Mudstrial Attachment (10 units)
b) EG3512 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CDE2605 Undergraduate Research Opportunity (4 units)
c) EG3612 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CFG2101 NUS Vacation Internship Programme (4 units) Note that EG3612 and EG3611A can be done as long as you have cleared 60 units.
d) EG3612 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CDE2605R Undergraduate Research Experience (4 units)

Note that UROP (CDE2605) may be taken in any regular semester or special term as long as you are at seniority 2.

4. If you wish to read Common Curriculum courses before your department's recommended semester, please submit an appeal or select the courses from Round 2. - courses that require appeal: DTK1234, GEA1000, please email:

DTK1234 - dtk1234@nus.edu.sg

GEA1000 - qradmin@nus.edu.sg

5. EE2023 in Semester 3, appeal and approval required