Engineering Science Programme

AY2021 cohort

E-Scholars 3-years schedule (ESP)			
Semester 0 (APT)			
EG1311 Design and Make			4
MA1505 Mathematics I (4 MC but it is mapped to MA1511 which is 2 MC)			4
MA2001 Linear Algebra I (maps to MA1508E)			4
CS1010E Programming Methodology			4
Sub-total			16
Semester 1		**Semester 2**	
ESP2107 Numerical Methods and Statistics	4	GEA1000 Quantitative Reasoning	4
MA1512 Differential Equations for Engineering	2	DTK1234 Design Thinking	4
ESP1111 Engineering Principles In-Action	4	EE2211 Introduction to Machine Learning	4
UE	4	PF1101 Fundamentals of Project Management	4
UTCP #1	4	ESP2111 Sensor System Electronics	4
UE	4	UTCP #2	4
		ESP2110 Design Project 2	4
Sub-total	22	**Sub-total**	28
Semester 3		**Semester 4**	
PC2020 Electromagnetics for Electrical Engineers or ME2121 Engineering Thermodynamics & Heat Transfer or EE2023 Signals and Systems	4	Xxxx Creating Narratives	4
ESP2106 Principles of Continua	4	ESP3903 Major Design Project II	4
UE (or IE2141 if not staying at RC4)	4	PC2130B Applied Quantum Physics	4
UTCP #3	4	UTCP #4	4
UE	4	UE	4
UE	4	EG2501 Liveable Cities	4
EG2101 Pathways to engineering Leadership	2	PC2133 Applied Solid State Physics	4
Sub-total	26	**Sub-total**	28
Semester 5		**Semester 6**	
Three options: 1. NOC experience (20 MC) mappable to EG3611A (10 MC) + 10 MCs UE 2. EG3611A (10 MCs) + EG3611B (2 MCs) + 8 MCs UE 3. EG3612 (Vacation Industrial Attachment) + EG2605 (Undergraduate Research Opportunity, UROP) + 10 MC UE Note that option 2 can be done in Semester 3 as well Note that, for option 3, UROP can be done in Semester 3 as well.	20	ESP4901 Research Project	8
		CM3296 Molecular Modelling: Theory and Practice	4
		UE	4
		UE	4
Sub-total	20	**Sub-total**	20
		Grand total	160

Notes:

1. If APT modules are not cleared, those modules must be cleared during the normal semesters
2. Improtant rules for NOC:

- You MUST be on campus the semester BEFORE going to NOC.
- You MUST have cleared at least 70 MC before applying to NOC