Electrical Engineering

AY2025 cohort

Accurate as of July 2025

E-Scholars 3-years schedule (EE)			
Semester 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**	
EE1111A Electrical Engineering Principles & Practice I	4	EE2111A Electrical Engineering Principles & Practice II	4
MA1512 Differential Equations for Engineering	2	PC2020 Electromagnetics for Electrical Engineers	4
UTCP #1	4	EE2012 Analytical Methods in ECE	4
PF1101A Fundamentals of Project Management and Finance	4	GEA1000 Quantitative Reasoning	4
DTK1234 Design Thinking	4	EE2023 Signals & Systems	4
UE	4	UTCP #2	4
UE*	2	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4
Sub-total	24	**Sub-total**	28
Semester 3		**Semester 4**	
EE2022 Electrical Energy Systems*	4	NUS Overseas College (NOC) experience (20 units)*	20
EE2028 Microcontroller Programming and Interfacing	4		
EE2027 Electronics Circuits*	4		
EE2026 Digital Design	4		
UTCP #3 (Replaces CDE2501)	4		
UE	4		
Sub-total	24	**Sub-total**	20
Semester 5		**Semester 6**	
EE4002D Design Capstone *or* EE4002R Research Capstone	4	EE4002D Design Capstone *or* EE4002R Research Capstone	4
EE3033 Systems Integration and Design Lab	4	UE	4
Extended Core Technical Elective	4	UE	4
Technical Elective	4	UE	4
UTCP #4	4	UE	4
UE	4	Technical Elective	4
Sub-total	24	**Sub-total**	24
Grand total			160

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:
a) EG3611A Industrial Attachment (10 units)
b) EG3612 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)
e) 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

*For students who plan to pursue the Advanced Electronics (AE), Microelectronics & Quantum Materials (MQM), Internet of Things (IoT) specializations, please note that EE2027 is required/prerequisite to specialization core.

*For students who plan to pursue the Sustainable Electric Transportation (SET) specialization, please note that EE2022 is prequisite to specialization core.