

# Robotics and Machine Intelligence Engineering

AY2025 cohort

Accurate as of July 2025

E-Scholars 3-years schedule (RMI)		
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
CS1010E Programming Methodology		4
<b>Sub-total</b>		<b>12</b>
Semester 1	Semester 2	
RB1101 Fundamentals of Robotics I	RB2101 Fundamentals of Robotics II	4
CE2407A Engineering Uncertainty Analysis	MA1512 Differential Equations for Engineering	2
PF1101A Fundamentals of Project Management and Finance	MA1513 Linear Algebra with Differential Equations	2
UTCP #1	GEA1000 Quantitative Reasoning	4
UE	DTK1234 Design Thinking	4
UE	UE	4
UE*	UTCP #2	4
<b>Sub-total</b>	<b>Sub-total</b>	<b>24</b>
Semester 3	Semester 4	
RB2202 Kinematics and Dynamics for Robots	NUS Overseas College (NOC) experience (20 units)*	20
RB2301 Robot Programming		
RB3302 Planning and Navigation		
UTCP #3 (Replaces CDE2501)		
UE		
UE		4
UE		4
<b>Sub-total</b>	<b>Sub-total</b>	<b>20</b>
Semester 5	Semester 6	
BN4101 B.Eng Dissertation	BN4101 B.Eng Dissertation	4
EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	RB2203 Robot Control	4
Technical Elective	RB2302 Fundamentals of Artificial Neural Networks	4
Technical Elective	RB3301 Introduction to Machine Intelligence	4
Technical Elective	RB3303 Robotic System Design and Application	4
UTCP #4	Technical Elective	4
UE		4
<b>Sub-total</b>	<b>Sub-total</b>	<b>24</b>
<b>Grand total</b>		<b>160</b>

## Notes:

1. If APT courses are not cleared, those courses (EG1311, MA1511, 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)

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

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Things to note for RMI :

\*\* RB2302 shifted to semester 2. pre-req and timetable check required

\*\* RB2203 shifted to semester 6. pre-req and timetable check required

\*\* Two semesters of 28 units