

Industrial Systems Engineering

AY2025 cohort

Accurate as of July 2025

E-Scholars 3-years schedule (ISE)			
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	
MA1512 Differential Equations for Engineering	2	ST2334 Probability and Statistics	4
IE1111R Industrial & Systems Engineering Principles & Practice I	4	IE2111 Industrial & Systems Engineering Principles & Practice II	4
UTCP #1	4	IE2100 Probability Models with Applications	4
DTK1234 Design Thinking	4	IE2141 Systems Thinking and Dynamics	4
UE	4	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4
UE	4	PF1101A Project Management and Finance	4
		UTCP #2	4
Sub-total	22	Sub-total	28
Semester 3		Semester 4	
IE2110 Operations Research I	4	NUS Overseas College (NOC) experience (20 units) *	20
IE3101 Statistics for Engineering Applications	4		
IE3110R Simulation	4		
CS2040DE Data Structures and Algorithms	4		
UTCP #3 (Replaces CDE2501)	4		
UE	4		
Sub-total	24	Sub-total	20
Semester 5		Semester 6	
IE3100R Systems Design Project	4	IE3100R Systems Design Project	4
Technical Elective	4	Technical Elective	4
UTCP #4	4	UE	4
UE	4	UE	4
UE	4	Technical Elective	4
UE	4	Technical Elective	4
UE*	2		
Sub-total	26	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)

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