## **Industrial Systems Engineering**

## AY2023 cohort

Accurate as of June 2023

Semester 0 (APT)	E-Scholars	3-vea	rs schedule (ISE)	
MA1505 Mathematics   (4 units. It is mapped to MA1511 which is 2 units, + 2 units to UE)			• •	
MA2001 Linear Algebra I (maps to MA1508E)	EG1311 Design and Make			4
A   Sub-total   Semester 2	MA1505 Mathematics I (4 units. It is mapped to MA1511 which is 2 units, + 2 units to UE)			4
Semester 1	MA2001 Linear Algebra I (maps to MA1508E)			4
Semester 1	CS1010E Programming Methodology			4
MAIS12 Differential Equations for Engineering   2   ST2334 Probability and Statistics   4   IE1111R Industrial & Systems Engineering Principles & Practice   4   IE2111 Industrial & Systems Engineering Principles & Practice   1   4   IE2100 Probability Mobiles with Applications   4   IE2211 Introduction to Machine Learning   4   IUTCP #2   4   IUE   IUE   4   IUE   IUE   4   IUE   IUE	Sub-total			16
	Semester 1		Semester 2	
UE	MA1512 Differential Equations for Engineering	2	ST2334 Probability and Statistics	4
UE	IE1111R Industrial & Systems Engineering Principles & Practice I	4	IE2111 Industrial & Systems Engineering Principles & Practice II	4
DE	UTCP #1	4	IE2100 Probability Models with Applications	4
PF1101 Fundamentals of Project Management   4	UE	4	DTK1234 Design Thinking	4
UTCP #2	UE	4	EE2211 Introduction to Machine Learning	4
Sub-total   22   Sub-total   28	UE	4	PF1101 Fundamentals of Project Management	4
Semester 3   Semester 4			UTCP #2	4
Semester 3   Semester 4				
E2110 Operations Research   4     E3101 Statistics for Engineering Applications   4     E3110R Simulation   4     CS2040 Data Structures and Algorithms   4     UE (or IE2141 if not staying at RC4)   4     Sub-total   24   Sub-total   25     Semester 5   Semester 6     E3100R Systems Design Project   4     E3100R Systems Design Project   4     Technical Elective   4     UTCP #4   4     UE   6     UE   7     UE   7     UE   7     UE   7     UE   7     UE   9     UE   9	Sub-total Sub-total	22	Sub-total	28
E3101 Statistics for Engineering Applications	Semester 3		Semester 4	
E3110R Simulation	IE2110 Operations Research I	4		
NUS Overseas College (NOC) experience (20 units)*   20	IE3101 Statistics for Engineering Applications	4		
UTCP #3	IE3110R Simulation	4		
UE (or IE2141 if not staying at RC4)   4	CS2040 Data Structures and Algorithms	4	NUS Overseas College (NOC) experience (20 units)*	20
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         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4	UTCP #3	4		20
Semester 5         Semester 6           IE3100R Systems Design Project         4         IE3100R Systems Design Project         4           Technical Elective         4         Technical Elective         4           UTCP #4         4         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         CDE2501 Liveable Cities         4	UE (or IE2141 if not staying at RC4)	4		
Semester 5         Semester 6           IE3100R Systems Design Project         4         IE3100R Systems Design Project         4           Technical Elective         4         Technical Elective         4           UTCP #4         4         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         CDE2501 Liveable Cities         4				╛
Semester 5         Semester 6           IE3100R Systems Design Project         4         IE3100R Systems Design Project         4           Technical Elective         4         Technical Elective         4           UTCP #4         4         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         CDE2501 Liveable Cities         4				
IE3100R Systems Design Project	Sub-total	24	Sub-total	20
Technical Elective         4         Technical Elective         4           UTCP #4         4         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         EG2401A Engineering Professionalism         2	Semester 5		Semester 6	
UTCP #4         4         CDE2000 Creating Narratives         4           UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         EG2401A Engineering Professionalism         2	IE3100R Systems Design Project	4	IE3100R Systems Design Project	4
UE         4         CDE2501 Liveable Cities         4           UE         4         UE         4           UE         4         UE         4           EG2401A Engineering Professionalism         2         EG2401A Engineering Professionalism         2	Technical Elective	4	Technical Elective	4
UE       4       UE       4         UE       4       UE       4         UE       4       UE       4         EG2401A Engineering Professionalism       2       Control of the professional state of the p	UTCP #4	4	CDE2000 Creating Narratives	4
UE         4         UE         4           EG2401A Engineering Professionalism         2	UE	4	CDE2501 Liveable Cities	4
EG2401A Engineering Professionalism 2	UE	4	UE	4
	UE	4	UE	4
Sub-total         26         Sub-total         24	EG2401A Engineering Professionalism	2		
	Sub-total	26	Sub-total	24

## Notes:

- 1. If APT courses are not cleared, those courses must be cleared during the normal semesters
- 2. Important rules for NOC:
- You MUST be on campus 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 module combinations to fulfil Industrial Attachment requirement (10 units) include:
- a) EG3611A Industrial Attachment (10 units)
- b) EG3612 Vacation Industrial Attachment (6 units) + EG2605 Undergraduate Research Opportunity (4 units)
- c) EG3612 Vacation Industrial Attachment (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.

Note that UROP (EG2605) 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 Roune
- courses that may be selected from Round 2: PF1101, EG2501, ES2631 (if not doing UTCP)
- courses that require appeal: EG2401A, DTK1234, GEA1000, EG1311, CDE2000, EE2211, IE2141 (if not staying in RC4)

Please refer to the CDE common curriculum wiki for more info on common course pre-allocation and registration issues.

 $\underline{https://wiki.nus.edu.sg/display/eng/Pre-allocation+and+Registration+for+Common+Courses+in+CDE}$