

**Bachelor of Engineering (Industrial & Systems Engineering)**  
**Recommended Semester Schedule for A-level Students (Cohorts AY2022/2023 to AY2023/2024)**

<b>Semester 1</b>	<b>Units</b>	<b>Semester 2</b>	<b>Units</b>
CS1010E Programming Methodology	4	ST2334 Probability and Statistics	4
EG1311 Design and Make	4	DTK1234 Design Thinking	4
GE/UE	4	MA1508E Linear Algebra for Engineering	4
IE1111R Industrial & Systems Engineering Principles & Practice I	4	IE2111 Industrial & Systems Engineering Principles & Practice II	4
MA1511 Engineering Calculus	2	PF1101 Fundamentals of Project Management/ PF1101A Project Management and Finance	4
MA1512 Differential Equations for Engineering	2		
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>
<b>Semester 3</b>	<b>Units</b>	<b>Semester 4</b>	<b>Units</b>
ES2631 Critique and Communication of Thinking and Design	4	CDE2501 Liveable Cities*	4
IE2141 Systems Thinking and Dynamics	4	EE2211 Introduction to Machine Learning	4
IE2110 Operations Research I	4	IE2100 Probability Models with Applications	4
CS2040/CS2040DE Data Structures and Algorithms	4	CDE2000 Creating Narratives*	4
GE/UE	4	GE/UE	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>
<b>Semester 5</b>	<b>Units</b>	<b>Semester 6</b>	<b>Units</b>
IE3101 Statistics for Engineering Applications	4	EG3611A Industrial Attachment	10
IE3110R Simulation	4	GE/UE	4
Technical Elective 1	4	GE/UE	4
EG2401A Engineering Professionalism	2		
GE/UE	4		
GE/UE	4		
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>18</b>
<b>Semester 7</b>	<b>Units</b>	<b>Semester 8</b>	<b>Units</b>
IE3100R Systems Design Project	4	IE3100R Systems Design Project	4
Technical Elective 2	4	GE/UE	4
GE/UE	4	GE/UE	4
GE/UE	4	GE/UE	4
GE/UE	4	GE/UE	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>

Note:

1. Students who have not passed or been exempted from the Qualifying English Test at the time of admission to the Faculty will have to read ES1000 and/or ES1103. This will be decided by CELC. ES1103 can be used to fulfil UE requirements.
2. Students should not read more than 60 Units of level 1000 courses towards their degree requirements.
3. The above is just a recommended schedule. It is subject to change without prior notice.

\* With effect from AY2025/2026, students can count Technical Courses (TC) towards the Sustainable Futures and/or Creating Narratives pillars. Refer to CDE website for more details:  
<https://cde.nus.edu.sg/undergraduate/curriculum-structure>