

**Bachelor of Engineering (Industrial & Systems Engineering)**  
**Recommended Semester Schedule for Poly Direct Entry Students (Cohort AY2025/2026)**

<b>Semester 1</b>	<b>Units</b>	<b>Semester 2</b>	<b>Units</b>
CS1010E Programming Methodology	4	PF1101A Project Management and Finance	4
IE1111R Industrial & Systems Engineering Principles & Practice I	4	IE2111 Industrial & Systems Engineering Principles & Practice II	4
PC1201 Fundamentals of Physics (UE)	4	MA1511 Engineering Calculus	2
MA1301 Introductory Mathematics (UE)	4	MA1508E Linear Algebra for Engineering	4
UE	4	UE	4
		UE	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 3</b>	<b>Units</b>	<b>Semester 4</b>	<b>Units</b>
IE2141 Systems Thinking and Dynamics	4	CDE2501 Sustainable Systems for Liveable Cities	4
IE2110 Operations Research I	4	EE2211 Introduction to Machine Learning	4
ST2334 Probability and Statistics	4	IE2100 Probability Models with Applications	4
MA1512 Differential Equations for Engineering	2	ES2631 Critique and Communication of Thinking and Design	4
GEC/GEN	4	CS2040DE Data Structures and Algorithms	4
<b>Sub-total</b>	<b>18</b>	<b>Sub-total</b>	<b>20</b>
<b>Semester 5</b>	<b>Units</b>	<b>Semester 6</b>	<b>Units</b>
IE3100R Systems Design Project	4	IE3100R Systems Design Project	4
IE3101 Statistics for Engineering Applications	4	Technical Elective 2	4
IE3110R Simulation	4	Technical Elective 3	4
Technical Elective 1	4	Technical Elective 4	4
EG2401A Engineering Professionalism	2	UE	4
GEC/GEN	4		
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>20</b>

Note:

1. Assuming 38 Units of Advanced Placement Credits are granted:  
DTK1234 (4 Units), EG1311 (4 Units), Industrial Attachment (10 Units) and UE (20 units).
2. Students who have not passed or been exempted from the Qualifying English Test at the time of admission to the College will have to read ES1000 and/or ES1103. This will be decided by CELC. ES1103 can be used to fulfil UE requirements.
3. MA1301 and PC1201 are bridging courses. Both courses can be used to fulfil UE requirements.
4. Students should not read more than 60 Units of level 1000 courses towards their degree requirements.
5. The above is just a recommended schedule. It is subject to change without prior notice.