

Bachelor of Engineering
(Environmental and Sustainability Engineering) (Hons)
 (from Cohort AY2025/26 onwards)

NEW CURRICULUM REQUIREMENTS	UNIT
COMMON CURRICULUM REQUIREMENTS – refer to Table 1	40
Singapore Studies (GE) - CDE2501 Liveable Cities	4
Cultures and Connections (GE)	4
Communities and Engagement (GE)	4
Critique and Expression (GE) - ES2631 Critical Thinking and Writing	4
Digital Literacy (GE) - CS1010% Programming Methodology [CS1010E]	4
Data Literacy (GE) – GEA1000 Quantitative Reasoning with Data	4
Design Thinking - DTK1234 Design Thinking	4
Maker Space – EG1311BE Design and Make	4
Artificial Intelligence - EE2211 Introduction to Machine Learning	4
Project Management - PF1101A Project Management and Finance	4
MAJOR REQUIREMENTS	80
Engineering Core	20
MA1511 Engineering Calculus	2
MA1512 Differential Equations for Engineering	2
MA1513 Linear Algebra with Differential Equations	2
CE2407A Uncertainty analysis for Engineers	2
EG2401A Engineering Professionalism	2
EG3611A Industrial Attachment [#] (or equivalent)	10
Discipline Core	60
ESE2101 Environmental Engineering Principles & Practices	4
ESE2102 Principles & Practice in Environmental Monitoring	4
ESE2000 Chemistry for An Environmentally Sustainable Future	4
ESE2001 Environmental Challenges in the Anthropocene	4
CE2134 Fluid Mechanics	4
ESE3101 Resource Management and Circular Economy	4
ESE3201 Air Quality in Changing Environment	4
ESE3301 Microbiology in Natural and Built Environment	4
ESE3401 Sustainable Urban Water Technology	4
ESE4501 Design Project	4
ESE4408 Environmental Impact Assessment	4
Technical Electives	8
Integrated Project ² – ESE4502R B. Eng. Dissertation	8
UNRESTRICTED ELECTIVES	40
TOTAL	160

[#] Engineering students may take up to 20 UNITs of credit-bearing internships, of which up to 10 UNITs can be used to fulfil the major internship requirement and the remaining will be counted towards Unrestricted Electives. This limit does not apply to students enrolled in the co-op degree programme.

Catalogue of Courses

Common Curriculum Pillar	Basket of Courses ¹
Singapore Studies	CDE2501 Liveable Cities
Cultures and Connections (GEC)	Students may read any course from the curated list of courses as approved by the NUS General Education Committee for this pillar (4 Units)
Communities and Engagement (GEN)	Students may read any course from the curated list of courses as approved by the NUS General Education Committee for this pillar (4 Units)
Critique and Expression (GE)	ES2631 Critical Thinking and Writing
Digital Literacy (GE)	CS1010% Programming Methodology - CS1010E Programming Methodology is the default course
Data Literacy (GE)	Students may read any course from the basket of courses approved by the NUS General Education Committee for this pillar (4 Units) - GEA1000 Quantitative Reasoning with Data is the default course
Design Thinking	DTK1234 Design Thinking
Maker Space	EG1311BE Design and Make
Artificial Intelligence	EE2211 Introduction to Machine Learning
Project Management	PF1101A Project Management and Finance
	Basket of Courses¹
Integrated Project ²	<p>Complete 8 UNIT from the following list of modules:</p> <ul style="list-style-type: none"> ○ AR3102 - Design 6 (8 Units) ○ LAD3001 - Design 5 (8 Units) ○ LAD3002 - Design 6 (8 Units) ○ ID3109 - Design Platforms G ### (4 Units) ○ ID3110 - Design Platforms H ### (4 Units) ○ BN4101 - B.Eng. Dissertation (8 Units) ○ CN4119 - Final Year Design Project (8 Units) ○ CE4104 - B. Eng. Dissertation (8 Units) ○ CG4002 - Computer Engineering Capstone Project (8 units) ○ EE4002D - Design Capstone (8 units) ○ EE4002R - Research Capstone (8 units) ○ ESE4502R - B. Eng. Dissertation (8 units) ○ ESP4901 - Research Project (8 units) ○ IE3100R - Systems Design Project (8 units) ○ IPM4101 - Dissertation (8 units) ○ MLE4101B - B.Eng. Dissertation (8 units) ○ MLE4102A - Design Project (8 units) ○ ME4101A - Bachelor of Engineering Dissertation (8 units) ○ XFE4401 - Integrated Honours Project ## (16 units) ○ CDE4301 - Innovation & Design Capstone ## (12 units) ○ CDE4301A - Ideas to Start-up ## (12 units) ○ RB4101A - B.Eng. Dissertation (8 units)

¹ The listing of modules is expected to grow and evolve over time, to suit curricular needs.

Students taking this course will fulfil the Integrated Project pillar (8 units) and the remaining will be counted towards Unrestricted Electives.

Students must read both ID3109 and ID3110 to satisfy the Integrated Project pillar.