B.Eng. (Infrastructure and Project Management) (Hons) curriculum for AY2024/25:

Table 1: Programme Structure

No	Requirements	Units (UTs)
1	**Common Curriculum**	**60**
a	General Education Pillars (University-wide), 4 UTs each 1. Data Literacy (GEA1000 Quantitative Reasoning with Data) 2. Digital Literacy (CS1010E Programming Methodology) 3. Critique and Expressions (ES2631 Critique and Communication of Thinking and Design) 4. Cultures and Connection * 5. Singapore Studies * 6. Communities and Engagement * *Students to select from the following list of available courses for GE Pillars with no pre-assigned course: - https://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/general-education/list-of-courses-approved-under-the-ge-pillars	24
b	Common Curriculum Pillars (CDE), 4 UTs each 1. Project Management (PF1101 Fundamentals of Project Management/ PF1101A Project Management and Finance) 2. Artificial Intelligence (EE2211 Introduction to Machine Learning) 3. Creating Narratives (CDE2000 Creating Narratives) 4. Design Thinking (DTK1234 Design Thinking) 5. Maker Space (EG1311 Design and Make) 6. Sustainable Futures (CDE2501 Liveable Cities) 7. Systems Thinking (IE2141 Systems Thinking and Dynamics) Refer to the in-flight change summary (next page) for highlighted items.	28
c	Integrated Project, 8 UTs 1. IPM4101 Dissertation *Year-long course	8
2	**Primary Major**	**60**
a	Discipline Core (IPM Essentials) Year 1 1. IPM1102 Infrastructure and Project Management Law (4 UTs) 2. IPM1103I Digitalisation in the Built Environment (4 UTs) 3. IPM1104 Built Environment Engineering Principles and Practice (4 UTs) Year 2 1. IPM2101 Introduction to Building Performance (4 UTs) 2. IPM2102 Construction Technology (4 UTs) 3. IPM2103 Measurement (Building Works) (4 UTs) 4. IPM2104 Project Cost Management (4 UTs) Year 3 1. IPM3102 Infrastructure and Facilities Management (4 UTs) Year 4 1. IPM4102 Project Execution (4 UTs) 2. IPM4103 Contract and Procurement Management (4 UTs)	40
b	Engineering Core (CDE) 1. CE2407A Uncertainty Analysis for Engineers (2 UTs) 2. CE2407B Introduction to Numerical Methods for Engineers (2 UTs) 3. MA1511 Engineering Calculus (2 UTs) 4. MA1513 Linear Algebra with Differential Equations (2 UTs) 5. EG2401A Engineering Professionalism (2 UTs) 6. EG3611A Industrial Attachment (10 UTs) * * Alternatives for Industrial Attachment: a. EG3612 Vacation Industrial Attachment (6 UTs) + EG2605 Undergraduate Research Opportunities Programme (4 UTs) b. EG3612 Vacation Industrial Attachment (6 UTs) + CDE2605R Undergraduate Research Experience (4 UTs) c. EG3612 Vacation Industrial Attachment (6 UTs) + CFG2101 NUS Vacation Internship Programme (4 UTs) d. ETP3205 Innovation & Enterprise Internship (6 UTs) + EG3612 Vacation Industrial Attachment (6 UTs)	20
3	**Unrestricted Electives**	**40**
	Total	**160**

- Some specific courses indicated might differ for students in Residential Colleges (RC).

In-flight Curriculum changes *(As of June 2025)*

The minimum number of additional technical courses you are required to read is based on your year of matriculation and your Normal Programme Duration (NPD). The table below shows the minimum number of additional technical courses required for each group of students.

Year of Matriculation	**Normal Programme Duration: 4 years**	**Normal Programme Duration: 3 years**
AY2024/25	3 additional TCs	2 additional TCs

*TC: Technical Courses

DBE List of Technical Courses

Course Code	**Course Title**	**Semester offered**	**Previous Code**
IPM2105	Structural Systems	Sem 1	PF2102
IPM2106	Mechanical and Electrical Systems	Sem 2	PF2505
IPM3103	Project Finance	Sem 1	PF2205

In line with the updated curriculum, the TCs will be used to fill following space in the Common Curriculum:-

- **Systems Thinking:** If you have not already read IE2141 Systems Thinking you can read an additional technical course to satisfy the Systems Thinking pillar in lieu of IE2141
- **Creating Narratives:** If you have not already read CDE2000 Creating Narratives you can read an additional technical course to satisfy the Creating Narratives pillar in lieu of CDE2000
- **Sustainable Futures:** If you have not read a course in the Singapore Studies pillar you can use CDE2501 Liveable Cities to satisfy Singapore Studies and read an additional technical course to satisfy the Sustainable Futures pillar

Students who have read the TC in the previous codes would also be counted towards this requirement.
Example:
Intake 2024 student with NPD of 4 years has read PF2205 prior to this announcement is considered to have completed 1 additional TC.

Students who are uncertain can reach out to the department at ipm@nus.edu.sg to seek guidance.
Please also include your latest study plan using the department's template.

Table 2: Curriculum Structure

	Year 1		Year 2		Year 3		Year 4	
	Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7	Sem 8
NUS GE Pillars	GEA1000 Quantitative Reasoning with Data (4 Units)	CS1010E Programming Methodology (4 Units)		ES2631 Critique and Communication of Thinking and Design (4 Units)				
CDE Common Curriculum Pillars	DTK1234 Design Thinking (4 Units)	EG1311 Design and Make (4 Units)	EE2211 Introduction to Machine Learning (4 Units)	IE2141 Systems Thinking and Dynamics (4 Units) ***Refer Page 2**	CDE2000 Creating Narratives (4 Units) ***Refer Page 2**		IPM4101 Dissertation (8 Units)	
			CDE2501 Liveable Cities (4 Units) ***Refer Page 2**					
			PF1101 Fundamentals of Project Management (4 Units) ***PF1101A From AY2025/26**					
Engineering Core Courses	CE2407A Uncertainty Analysis for Engineers (2 Units)	CE2407B Introduction to Numerical Methods for Engineers (2 Units)			EG2401A Engineering Professionalism (2 Units)	EG3611A* Industrial Attachment (10 Units) *Polytechnic students exempted		
	MA1513 Linear Algebra with Differential Equations (2 Units)	MA1511 Engineering Calculus (2 Units)						
Discipline Core (IPM Essential) Courses	IPM1102 Infrastructure and Project Management Law (4 Units)	IPM1103I Digitalisation in the Built Environment (4 Units)	IPM2101 Introduction to Building Performance (4 Units)	IPM2103 Measurement (Building Works) (4 Units)	IPM3102 Infrastructure and Facilities Management (4 Units)		IPM4102 Project Execution (4 Units)	
	IPM1104 Built Environment Engineering Principles and Practice (4 Units)		IPM2102 Construction Technology (4 Units)	IPM2104 Project Cost Management (4 Units)			IPM4103 Contract and Procurement Management (4 Units)	
IPM Elective Courses			PF2205 Project Finance (4 Units) ***IPM3103 from AY2025/26***		PF3105 Research Methods (4 Units)			PF4208 Safety and Health Management (4 Units)
					IPM3101 Project Feasibility (4 Units)			
IPM Elective Courses (Cost and Contract Management)			PF2102 Structural Systems (4 Units) ***IPM2105 from AY2025/26***	PF2203 Quality and Productivity Management (4 Units)	PF3208 Project Leadership (4 Units)	PF3207 Project Management Law (4 Units)		PF4203 Project Dispute Management (4 Units)
					PF3205 Advanced Measurement (4 Units)			
					PF3209 Building Information Modelling (4 Units)			
IPM Elective Courses (Facilities Management)				PF2504 Materials Technology (4 Units)	PF3307 Strategic Facilities Management (4 Units)	PF3305 Facilities Planning and Design (4 Units)	PF4309 Infrastructure Operations and Maintenance (4 Units)	PF4306 REITs Facilities Management (4 Units)
				PF2505 M&E Systems (4 Units) ***IPM2106 from AY2025/26***		PF3301 Maintainability of Facilities (4 Units)		
						PF3306 Facilities Management Law and Contracts (4 Units)		
IPM Elective Courses (Sustainable and Digital Technologies)					PF3211 AI Applications for the Built Environment (4 Units)	PF3502 Smart Facilities (4 Units)	PF4502 Green Development (4 Units)	PF4502 Green Development (4 Units)
					PF3210 Total Building Performance (4 Units)	PF3504 Energy Management (4 Units)	PF4213 Building Energy Analysis and Simulation (4 Units)	PF4212 Advanced Building Information Modelling (4 Units)
Unrestricted Electives		1 x GE/UE	1 x GE/UE	1 x GE/UE	1 x GE/UE	2 x GE/UE	1 x GE/UE	3 x GE/UE