

**Bachelor of Engineering (Infrastructure & Project Management)  
with Minor in Innovation & Design**

**Cohort AY2022/2023**

<b>Modular Requirements</b>	<b>Modular Credits (MCs)</b>
<b>Common Curriculum</b>	
GEA1000 Quantitative Reasoning with Data <sup>1</sup>	4
CS1010E Programming Methodology	4
ES2631 Critique and Communication of Thinking and Design <sup>1</sup>	4
GE: Cultures and Connections <sup>1</sup>	4
GE: Singapore Studies <sup>1</sup>	4
GE: Communities and Engagement <sup>1</sup>	4
CDE2000 Creating Narratives	4
DTK1234 Design Thinking	4
EE2211 Introduction to Machine Learning	4
EG1311 Design and Make	4
EG2501 Liveable Cities	4
IE2141 Systems Thinking and Dynamics	4
PF1101 Fundamentals of Project Management	4
IPM4101 Dissertation <sup>2</sup>	8
<b>Sub-total for Common Curriculum</b>	<b>60</b>
<b>Engineering Core</b>	
MA1511 Engineering Calculus	2
MA1513 Linear Algebra with Differential Equations	2
CE2407A Uncertainty Analysis for Engineers	2
CE2407B Introduction to Numerical Methods for Engineers	2
EG2401A Engineering Professionalism	2
EG3611A Industrial Attachment <u>or</u> CFG2101 NUS Vacation Internship Programme <sup>3</sup> <u>and</u> EG3612 Vacation Industrial Attachment	10
<b>Sub-total for Engineering Core</b>	<b>20</b>
<b>Engineering Programme Requirements</b>	
IPM1102 Infrastructure and Project Management Law	4
IPM1103 Digital Construction	4
IPM2101 Introduction to Building Performance	4
IPM2102 Construction Technology	4
IPM2103 Measurement (Building Works)	4
IPM2104 Project Cost Management	4
IPM3101 Project Feasibility	4
IPM3102 Infrastructure and Facilities Management	4
IPM4102 Project Execution	4
IPM4103 Contract and Procurement Management	4
<b>Sub-total for Engineering Programme Requirements</b>	<b>40</b>
<b>Unrestricted Electives</b>	
Group A module for Minor	4
Group B module for Minor	4
EG3301R DCP Project (over 2 consecutive semesters)	12
Other unrestricted electives <sup>2</sup>	20
<b>Sub-total for Unrestricted Electives</b>	<b>40</b>
<b>Total</b>	<b>160</b>

**Innovation & Design Programme**  
**NUS College of Design and Engineering**

Notes:

- <sup>1</sup> Students may read equivalent modules in USP/NUSC, UTCP, and RVRC.
- <sup>2</sup> Subject to approval from home department, students may take EG4301 DCP Dissertation or EG4301A Ideas to Start-up in lieu of IPM4101 and 4 MCs of unrestricted electives.
- <sup>3</sup> May be replaced by EG2605 Undergraduate Research Opportunities Programme.

**Recommended semester schedule – JC-intake students or equivalent**  
(for students who opt for vacation internships)

Semester 1	MCs	Semester 2	MCs
IPM1102 Infrastructure and Project Management Law	4	IPM1103 Digital Construction	4
GEA1000 Quantitative Reasoning with Data	4	CS1010E Programming Methodology	4
DTK1234 Design Thinking	4	EG1311 Design & Make	4
MA1513 Linear Algebra with Differential Equations	2	MA1511 Engineering Calculus	2
CE2407A Uncertainty Analysis for Engineers	2	CE2407B Introduction to Numerical Methods for Engineers	2
PF1101 Fundamentals of Project Management	4	Group A module for Minor	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>

Summer vacation between Semesters 2 and 3	MCs
CFG2101 NUS Vacation Internship Programme	4
<b>Sub-total</b>	<b>4</b>

Semester 3	MCs	Semester 4	MCs
IPM2101 Introduction to Building Performance	4	IPM2103 Measurement (Building Works)	4
IPM2102 Construction Technology	4	IPM2104 Project Cost Management	4
EE2211 Introduction to Machine Learning	4	ES2631 Critique and Communication of Thinking and Design	4
EG2501 Liveable Cities	4	IE2141 Systems Thinking & Dynamics	4
Group B module for Minor	4	EG3301R DCP Project	6
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>22</b>

Summer vacation between Semesters 4 and 5	MCs
EG3612 Vacation Internship Attachment	6
<b>Sub-total</b>	<b>6</b>

Semester 5	MCs	Semester 6 – can be used for SEP	MCs
EG3301R DCP Project	6	GE *	4
IPM3101 Project Feasibility	4	GE *	4
IPM3102 Infrastructure and Facilities Management	4	GE *	4
CDE2000 Creating Narratives	4	UE	4
EG2401A Engineering Professionalism	2	UE	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>

Semester 7	MCs	Semester 8	MCs
IPM4101 Dissertation	8	UE	4
IPM4102 Project Execution	4	UE	4
IPM4103 Contract and Procurement Management	4	UE	4
<b>Sub-total</b>	<b>16</b>	<b>Sub-total</b>	<b>12</b>

\* Students in UTCP and RVRC will need to overload in Semesters 2 to 4 in order to clear these modules earlier.

**Recommended semester schedule – JC-intake students or equivalent**  
(for students who opt for industrial attachment)

Semester 1	MCs	Semester 2	MCs
IPM1102 Infrastructure and Project Management Law	4	IPM1103 Digital Construction	4
GEA1000 Quantitative Reasoning with Data	4	CS1010E Programming Methodology	4
DTK1234 Design Thinking	4	EG1311 Design & Make	4
MA1513 Linear Algebra with Differential Equations	2	MA1511 Engineering Calculus	2
CE2407A Uncertainty Analysis for Engineers	2	CE2407B Introduction to Numerical Methods for Engineers	2
PF1101 Fundamentals of Project Management	4	Group A module for Minor	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>20</b>

Semester 3	MCs	Semester 4	MCs
IPM2101 Introduction to Building Performance	4	IPM2103 Measurement (Building Works)	4
IPM2102 Construction Technology	4	IPM2104 Project Cost Management	4
EE2211 Introduction to Machine Learning	4	ES2631 Critique and Communication of Thinking and Design	4
EG2501 Liveable Cities	4	IE2141 Systems Thinking & Dynamics	4
Group B module for Minor	4	EG3301R DCP Project	6
GE	4		
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>22</b>

Semester 5	MCs	Semester 6	MCs
EG3301R DCP Project	6	EG3611A Industrial Attachment	10
IPM3101 Project Feasibility	4		
IPM3102 Infrastructure and Facilities Management	4		
CDE2000 Creating Narratives	4		
EG2401A Engineering Professionalism	2		
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>10</b>

Semester 7	MCs	Semester 8	MCs
IPM4101 Dissertation	8	UE	4
IPM4102 Project Execution	4	UE	4
IPM4103 Contract and Procurement Management	4	UE	4
GE *	4	UE	4
GE *	4	UE	4
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>20</b>

\* Students in UTCP and RVRC will need to overload in Semesters 2 to 4 in order to clear these modules earlier.