Recommended study plan in NUS for Biomedical Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)		
Pillar	**Course Code and Name**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	4
Communities and Engagement		4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	4
Digital Literacy	CS1010E Programming Methodology	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	4
Design Thinking	DTK1234 Design Thinking	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4
Project Management	PF1101A Project Management and Finance	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism		2
Major Programme (40 units)		
BN1112 Introduction to Biomedical Design and Manufacturing	Year 1 Sem 1	4
BN2112 Molecular Cell Biology for Biomedical Engineers	Year 1 Sem 2	4
BN2104 Medical Technology in Public and Global Health	Year 2 Sem 2	4
BN2301 Biochemistry and Biomaterials for Bioengineers	Year 2 Sem 1	4
BN2204 Fundamentals of Biomechanics	Year 2 Sem 2	4
BN2201 Quantitative Physiology for Bioengineers	Year 2 Sem 1	4
BN2404 Biomedical Circuits and Signal Processing	Year 2 Sem 1	4
BN2105 Medical Device Life Cycle Management	Year 2 Sem 1	4
BN3405 Biomedical Instrumentation	Year 2 Sem 2	4
BN3406 Biomedical imaging and AI applications	Year 2 Sem 2	4
	Total units	**82**

Recommended study plan in NUS for Chemical Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)			
Pillar	**Course Code and Name**	**Recommended Yr/Sem**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	Year 2 Sem 1	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 1	4
Communities and Engagement		Year 1 Sem 1	4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	Year 2 Sem 2	4
Digital Literacy	CS1010E Programming Methodology	Year 1 Sem 2	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 1	4
Design Thinking	DTK1234 Design Thinking	Year 1 Sem 1	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	Year 1 Sem 2	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	Year 2 Sem 1	4
Project Management	PF1101A Project Management and Finance	Year 1 Sem 1	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism	Year 2 Sem 1	2
Major Programme (40 units)		
CN1101A Chemical Engineering Principles and Practice I	Year 1 Sem 1	4
CN2102 Chemical Engineering Principles and Practice II	Year 1 Sem 2	4
CN2103 Mass & Energy Balance	Year 1 Sem 2	4
CN2104 Chemical Engineering Thermodynamics	Year 2 Sem 1	4
CN2109 Fluid Mechanics	Year 2 Sem 1	4
CN2105 Reaction Engineering	Year 2 Sem 2	4
CN2110 Heat and Mass Transfer	Year 2 Sem 2	4
CN3105 Machine Learning in Chemical Engineering	Year 2 Sem 2	4
CN3106 Separation Processes	Year 2 Sem 2	4
CN4101 Process Control and Safety	Year 2 Sem 2	4
Total units		**82**

Recommended study plan in NUS for Computer Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)		
Pillar	**Course Code and Name**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	4
Communities and Engagement		4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	4
Digital Literacy	CS1010 Programming Methodology	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	4
Design Thinking	DTK1234 Design Thinking	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4
Project Management	PF1101A Project Management and Finance	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism		2
Major Programme (40 units)		
CG1111A Engineering Principles and Practice I	Year 1, Sem 1	4
CG2111A Engineering Principles and Practice II	Year 1, Sem 2	4
CS1231 Discrete Structures	Year 2, Sem 1	4
CS2040C Data Structures and Algorithms	Year 2, Sem 1	4
CG2023 Signals & Systems	Year 2, Sem 2	4
EE2026 Digital Design	Year 2, Sem 2	4
CG2027 Transistor-level Digital Circuits	Year 2, Sem 2	2
CG2028 Computer Organization	Year 2, Sem 2	2
CS2107 Introduction to Information Security		4
CG3201 Machine Learning and Deep Learning		4
CS2113 Software Engineering & Object-Oriented Programming or CS3207 Computer Architecture		4
Total units		**82**

Recommended study plan in NUS for Electrical Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)			
Pillar	**Course Code and Name**	**Recommended Yr/Sem**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	Year 2 Sem 2	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 1	4
Communities and Engagement		Year 2 Sem 1	4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	Year 2 Sem 1	4
Digital Literacy	CS1010E Programming Methodology	Year 1 Sem 1	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 2	4
Design Thinking	DTK1234 Design Thinking	Year 1 Sem 2	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	Year 1 Sem 1	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	Year 2 Sem 2	4
Project Management	PF1101A Project Management and Finance	Year 1 Sem 2	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism	Year 2 Sem 2	2
Major Programme (40 units)		
EE1111A Electrical Engineering Principles & Practice I	Year 1 Sem 1	4
EE2111A Electrical Engineering Principles & Practice II	Year 1 Sem 2	4
EE2012 Analytical Methods in ECE	Year 2 Sem 1	4
EE2022 Electrical Energy Systems	Year 2 Sem 2	4
EE2023 Signals & Systems	Year 2 Sem 1	4
EE2026 Digital Design	Year 1 Sem 2	4
EE2027 Electronics Circuits	Year 2 Sem 1	4
EE2028 Microcontroller Programming and Interface	Year 2 Sem 1	4
EE3033 Systems Integration and Design Lab	Year 2 Sem 2	4
EE Extended Core - EE3xxxC	Year 2 Sem 2	4
EE Extended Cores / Technical Electives - Optional (strongly encouraged)		
	Total units	**82**

Recommended study plan in NUS for Industrial & Systems Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)			
Pillar	**Course Code and Name**	**Recommnded Yr/Sem**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	Year 1 Sem 2	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 2 Sem 2	4
Communities and Engagement		Year 2 Sem 1	4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	Year 2 Sem 2	4
Digital Literacy	CS1010E Programming Methodology	Year 1 Sem 1	4
Data Literacy	IE1111R Industrial & Systems Engineering Practice I	Year 1 Sem 1	4
Design Thinking	DTK1234 Design Thinking	Year 1 Sem 1	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	Year 1 Sem 2	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	Year 2 Sem 2	4
Project Management	PF1101A Project Management and Finance	Year 1 Sem 2	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism	Year 2 Sem 2	2
Major Programme (40 units)		
IE2111 Industrial & Systems Engineering Principles & Practice II	Year 1 Sem 2	4
ST2334 Probability and Statistics	Year 1 Sem 2	4
IE2110 Operations Research I	Year 2 Sem 1	4
IE2141 Systems Thinking and Dynamics	Year 2 Sem 1	4
IE2100 Probability Models with Applications	Year 1 Sem 2	4
IE3101 Statistics for Engineering Applications	Year 2 Sem 1	4
IE3110R Simulation	Year 2 Sem 1	4
CS2040DE Data Structures and Algorithms	Year 2 Sem 2	4
Technical Elective 1 - Any course from the List of Technical Electives	Year 2 Sem 1	4
Technical Elective 2 - Any course from the List of Technical Electives	Year 2 Sem 2	4
Total units		**82**

Recommended study plan in NUS for Mechanical Engineering students from AY2025/26 cohort onwards

Common Curriculum (40 units)			
Pillar	**Course Code and Name**	**Recommended Yr/Sem**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	Year 2 Sem 2	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 2 Sem 1	4
Communities and Engagement		Year 2 Sem 1	4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	Year 2 Sem 1	4
Digital Literacy	CS1010E Programming Methodology	Year 1 Sem 1	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 2	4
Design Thinking	DTK1234 Design Thinking	Year 1 Sem 2	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	Year 1 Sem 1	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	Year 2 Sem 2	4
Project Management	PF1101A Project Management and Finance	Year 1 Sem 2	4

Major Requirements (42 units)			
Engineering Core (2 units)			
Course Code and Name		**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism			2
Major Programme (40 units)			
ME1103 Principles of Mechanics and Materials		Year 1 Sem 1	4
ME2102 Engineering Innovation and Modelling		Year 1 Sem 1	4
ME2162 Manufacturing Processes		Year 1 Sem 1	4
ME2105 Principles of Mechatronics and Automation		Year 1 Sem 2	4
ME2121 Engineering Thermodynamics and Heat Transfer		Year 1 Sem 2	4
ME2134 Fluids Mechanics I		Year 1 Sem 2	4
ME2116 Mechanics of Materials		Year 2 Sem 1	4
ME3115 Mechanics of Machines		Year 2 Sem 1	4
ME3123 Applied Thermofluids		Year 2 Sem 2	4
ME3142 Feedback Control Systems		Year 2 Sem 2	4
		Total units	**82**

Recommended study plan in NUS for Robotics & Machine Intelligence students from AY2025/26 cohort onwards

Common Curriculum (40 units)			
Pillar	**Course Code and Name**	**Recommended Yr/Sem**	**Units**
Singapore Studies	CDE2501 Sustainable Systems for Liveable Cities	Year 2 Sem 2	4
Cultures and Connections	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 1	4
Communities and Engagement		Year 2 Sem 1	4
Critique and Expression	ES2631 Critique and Communication of Thinking and Design	Year 2 Sem 2	4
Digital Literacy	CS1010E Programming Methodology	Year 1 Sem 1	4
Data Literacy	Students may read any course from the curated list of course as approved by the NUS General Education Committee for this pillar.	Year 1 Sem 2	4
Design Thinking	DTK1234 Design Thinking	Year 1 Sem 2	4
Maker Space	EG1311 Design and Make or EG1311BE Design and Make	Year 1 Sem 1	4
Artificial Intelligence	EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	Year 2 Sem 1	4
Project Management	PF1101A Project Management and Finance	Year 1 Sem 2	4

Major Requirements (42 units)		
Engineering Core (2 units)		
Course Code and Name	**Recommended Yr/Sem**	**Units**
EG2401A Engineering Professionalism	Year 2 Sem 1	2
Major Programme (40 units)		
RB1101 Fundamentals of Robotics I	Year 1 Sem 1	4
RB2101 Fundamentals of Robotics II	Year 1 Sem 2	4
RB2202 Kinematics and Dynamics for Robotics	Year 1 Sem 1	4
RB2203 Robot Control	Year 1 Sem 2	4
RB2301 Robot Programming	Year 2 Sem 1	4
RB2302 Fundamentals of Artificial Neural Networks	Year 1 Sem 2	4
RB3301 Introduction to Machine Intelligence	Year 2 Sem 2	4
RB3302 Planning and Navigation	Year 2 Sem 1	4
RB3303 Robotic System Design and Applications	Year 2 Sem 2	4
RB4301 Robot Learning	Year 2 Sem 2	4
	Total units	**82**