Innovation & Design Programme
NUS College of Design and Engineering

Bachelor of Science
with Second Major in Innovation & Design

Cohort AY2023/2024

Course Requirements	Units
Common Curriculum	
Artificial Intelligence	4
Communities and Engagement	4
Data Literacy	4
Digital Literacy	4
Design Thinking: DTK1234 Design Thinking	4
Writing: SP1541 Exploring Science Communication through Popular Science	4
Integrated Asian Studies: HSA1000 Asian Interconnections	4
Integrated Humanities: HSH1000 The Human Condition	4
Integrated Social Sciences: HSS1000 Understanding Social Complexity	4
Scientific Inquiry I	4
Scientific Inquiry II	4
Interdisciplinary Course I	4
Interdisciplinary Course II	4
Sub-total for Common Curriculum	**52**
Major Requirements	
Major gateway course	4
Core courses and electives	56
Sub-total for Major Requirements	**60**
Unrestricted Electives	
Group A course for Second Major	4
Group B course for Second Major	4
Group C courses for Second Major (Innovation & Enterprise electives)	8
CDE3301/EG3301R Ideas to Proof-of-Concept (over 2 consecutive semesters)	12
CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up (over 2 consecutive semesters)	12
Other unrestricted electives	8
Sub-total for Unrestricted Electives	**48**
Total	**160**

Note:
Some courses in the Common Curriculum may be fulfilled by those in NUS College (NUSC), University Town College Programme (UTCP), and Ridge View Residential Programme (RVRC).

(updated 11 July 2024)

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Recommended semester schedule
(for students who read DTK1234 in Semester 1)

Semester 1	Units	Semester 2	Units
HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4	HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4
HSA1000 Asian Interconnections or Scientific Inquiry I	4	HSA1000 Asian Interconnections or Scientific Inquiry I	4
DTK1234 Design Thinking	4	Data Literacy	4
Major 1 (gateway course)	4	Major 2	4
UE	4	Group A/B course for Second Major	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	Units	Semester 4	Units
Digital Literacy	4	Artificial Intelligence	4
SP1541 Exploring Science Communication through Popular Science	4	Communities and Engagement	4
Scientific Inquiry II	4	Major 4	4
Major 3	4	Major 5	4
Group A/B course for Second Major	4	CDE3301/EG3301R Ideas to Proof-of-Concept	6
Sub-total	**20**	**Sub-total**	**22**

Semester 5	Units	Semester 6 – can be used for SEP	Units
CDE3301/EG3301R Ideas to Proof-of-Concept	6	Innovation & Enterprise Elective 1	4
Interdisciplinary Course I	4	Interdisciplinary Course II	4
Major 6	4	Major 9	4
Major 7	4	Major 10	4
Major 8	4	Major 11	4
Sub-total	**22**	**Sub-total**	**20**

Semester 7	Units	Semester 8	Units
CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6	CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6
Innovation & Enterprise Elective 2	4	Major 14	4
Major 12	4	Major 15	4
Major 13	4	UE	4
Sub-total	**18**	**Sub-total**	**18**

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Innovation & Design Programme
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Recommended semester schedule
(for students who read DTK1234 in Semester 2)

Semester 1	Units	Semester 2	Units
HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4	HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4
HSA1000 Asian Interconnections or Scientific Inquiry I	4	HSA1000 Asian Interconnections or Scientific Inquiry I	4
Data Literacy	4	DTK1234 Design Thinking	4
Major 1 (gateway course)	4	Major 2	4
UE	4	Group A/B course for Second Major	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	Units	Semester 4	Units
Digital Literacy	4	Artificial Intelligence	4
SP1541 Exploring Science Communication through Popular Science	4	Communities and Engagement	4
Scientific Inquiry II	4	Major 4	4
Major 3	4	Major 5	4
Group A/B course for Second Major	4	CDE3301/EG3301R Ideas to Proof-of-Concept	6
Sub-total	**20**	**Sub-total**	**22**

Semester 5	Units	Semester 6 – can be used for SEP	Units
CDE3301/EG3301R Ideas to Proof-of-Concept	6	Innovation & Enterprise Elective 1	4
Interdisciplinary Course I	4	Interdisciplinary Course II	4
Major 6	4	Major 9	4
Major 7	4	Major 10	4
Major 8	4	UE	4
Sub-total	**22**	**Sub-total**	**20**

Semester 7	Units	Semester 8	Units
CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6	CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6
Innovation & Enterprise Elective 2	4	Major 13	4
Major 11	4	Major 14	4
Major 12	4	Major 15	4
Sub-total	**18**	**Sub-total**	**18**

(updated 11 July 2024)

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Recommended semester schedule
(for students in year-long NOC programmes)

Semester 1	Units	Semester 2	Units
HSH1000 The Human Condition <u>or</u> HSS1000 Understanding Social Complexity	4	HSH1000 The Human Condition <u>or</u> HSS1000 Understanding Social Complexity	4
HSA1000 Asian Interconnections <u>or</u> HSI1000 How Science Works, Why Science Works	4	HSA1000 Asian Interconnections <u>or</u> HSI1000 How Science Works, Why Science Works	4
Data Literacy <u>or</u> DTK1234 Design Thinking	4	Data Literacy <u>or</u> DTK1234 Design Thinking	4
Digital Literacy	4	Major 2	4
Major 1 (gateway course)	4	Group A/B course for Second Major	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	Units	Semester 4	Units
SP1541 Exploring Science Communication through Popular Science	4	Artificial Intelligence	4
Scientific Inquiry II	4	Communities and Engagement	4
Major 3	4	Major 6	4
Major 4	4	Major 7	4
Major 5	4	CDE3301/EG3301R Ideas to Proof-of-Concept	6
Group A/B course for Second Major	4		
Sub-total	**24**	**Sub-total**	**22**

Semester 5	Units	Semester 6 – NOC	Units
CDE3301/EG3301R Ideas to Proof-of-Concept	6	NOC	
Interdisciplinary Course I	4		
Major 8	4		
Major 9	4		
Major 10	4		
Sub-total	**22**	**Sub-total**	**20**

Semester 7 – NOC	Units	Semester 8	Units
NOC		Interdisciplinary Course II	4
		Major 11	4
		Major 12	4
		Major 13	4
		Major 14	4
		Major 15	4
Sub-total	**18**	**Sub-total**	**24**

(updated 11 July 2024)

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A year-long NOC programme comprises the following courses:
- ETP3206L Innovation & Enterprise Internship (16 units) – counted as UE (16 units)
- ETP3202L Innovation & Enterprise Case Study & Analysis (8 units) – replaces CDE4301A (8 units out of 12 units)
- ETP3203L Innovation & Enterprise Internship Practicum (8 units) – replaces CDE4301A (4 units out of 12 units) and UE (4 units)
- ETP2271 Discovering Resilience and Purpose (2 units) – counted as UE (2 units)
- Entrepreneurship courses (4 or 8 units) – replaces Innovation & Enterprise electives (up to 8 units – students will need to complete additional Innovation & Enterprise Electives in NUS if they are unable to complete 8 units of entrepreneurship courses during NOC)

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Recommended semester schedule
(for students in one-semester NOC programmes)

Semester 1	Units	Semester 2	Units
HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4	HSH1000 The Human Condition or HSS1000 Understanding Social Complexity	4
HSA1000 Asian Interconnections or HSI1000 How Science Works, Why Science Works	4	HSA1000 Asian Interconnections or HSI1000 How Science Works, Why Science Works	4
Data Literacy or DTK1234 Design Thinking	4	Data Literacy or DTK1234 Design Thinking	4
Digital Literacy	4	Major 2	4
Major 1 (gateway course)	4	Group A/B course for Second Major	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	Units	Semester 4	Units
SP1541 Exploring Science Communication through Popular Science	4	Artificial Intelligence	4
Scientific Inquiry II	4	Communities and Engagement	4
Major 3	4	Major 6	4
Major 4	4	Major 7	4
Major 5	4	CDE3301/EG3301R Ideas to Proof-of-Concept	6
Group A/B course for Second Major	4		
Sub-total	**24**	**Sub-total**	**22**

Semester 5	Units	Semester 6 – NOC	Units
CDE3301/EG3301R Ideas to Proof-of-Concept	6	NOC	
Interdisciplinary Course I	4		
Major 8	4		
Major 9	4		
Major 10	4		
Sub-total	**22**	**Sub-total**	**22**

Semester 7	Units	Semester 8	Units
CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6	CDE4301 Innovation & Design Capstone or CDE4301A Ideas to Start-up	6
Major 11	4	Interdisciplinary Course II	4
Major 12	4	Major 14	4
Major 13	4	Major 15	4
Sub-total	**18**	**Sub-total**	**18**

A one-semester NOC programme comprises the following courses:
- ETP3201L Innovation & Enterprise Internship (12 units) – counted as UE (12 units)
- ETP3204S Innovation & Enterprise Internship Practicum (4 units) – replaces Innovation & Enterprise Elective 1 (4 units)
- Entrepreneurship course (4 units) – replaces Innovation & Enterprise Elective 2 (4 units)
- ETP2271 Discovering Resilience and Purpose (2 units) – counted as UE (2 units)

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