Innovation & Design Programme
NUS College of Design and Engineering

Bachelor of Computing (Computer Science)
with Minor in Innovation & Design

Cohort AY2021/2022

Modular Requirements	Modular Credits (MCs)
University Level Requirements [1]	
GE1: Data Literacy	4
GE2: Communities and Engagement [2]	4
GE3: Cultures and Connections [2]	4
GE4: Singapore Studies [2]	4
Sub-total for University Level Requirements	**16**
Programme Requirements	
CS1101S Programming Methodology [1]	4
CS1231S Discrete Structures	4
CS2030S Programming Methodology II	4
CS2040S Data Structures and Algorithms	4
CS2100 Computer Organisation	4
CS2103T Software Engineering [3]	4
CS2106 Introduction to Operating Systems	4
CS2109S Introduction to AI and Machine Learning	4
CS3230 Design and Analysis of Algorithms	4
IS1103 Ethics in Computing	4
CS2101 Effective Communication for Computing Professionals [3]	4
ES2660 Communicating in the Information Age [1]	4
MA1521 Calculus for Computing	4
MA2001 Linear Algebra I	4
ST2334 Probability and Statistics	4
One Science module [4]	4
Industrial Experience Requirement [5]	12
Computer Science Breadth and Depth modules	28
Sub-total for Programme Requirements	**104**
Unrestricted Electives	
Group A module for Minor	4
Group B module for Minor	4
EG3301R DCP Project (over 2 consecutive semesters)	12
Other unrestricted electives	20
Sub-total for Unrestricted Electives	**40**
Total	**160**

Notes:

[1]   Digital Literacy and Critique and Expression pillars are satisfied by CS1101S and ES2660, respectively.

[2]   Students may read equivalent modules in USP/NUSC, UTCP, and RVRC.

[3]   Students taking CS2103T must take CS2101 in the same semester.

[4]   Refer to latest list provided by School of Computing.

(updated 16 June 2022)

Innovation & Design Programme
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Recommended semester schedule
(for students who opt for vacation internships)

Semester 1	MCs	Semester 2	MCs
MA1521 Calculus for Computing	4	MA2001 Linear Algebra I	4
CS1101S Programming Methodology	4	CS2030S Programming Methodology II	4
CS1231S Discrete Structures	4	CS2040S Data Structures and Algorithms	4
IS1103 Ethics in Computing	4	CS2100 Computer Organisation	4
GE1	4	Group A module for Minor	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	MCs	Semester 4	MCs
CS2101 Effective Communication for Computing Professionals	4	CS2109S Introduction to AI and Machine Learning	4
CS2103T Software Engineering	4	CS3230 Design and Analysis of Algorithms	4
CS2106 Introduction to Operating Systems	4	ES2660 Communicating in the Information Age	4
ST2334 Probability and Statistics	4	One Science module	4
Group B module for Minor	4	EG3301R DCP Project	6
Sub-total	**20**	**Sub-total**	**22**

Summer vacation between Semesters 4 and 5	MCs
CP3200 Internship	6
Sub-total	**6**

Semester 5	MCs	Semester 6 – can be used for SEP	MCs
EG3301R DCP Project	6	CS Breadth / Depth module 1	4
GE2 *	4	CS Breadth / Depth module 2	4
GE3 *	4	CS Breadth / Depth module 3	4
GE4 *	4	UE	4
		UE	4
Sub-total	**18**	**Sub-total**	**20**

Summer vacation between Semesters 6 and 7	MCs
CP3202 Internship II	6
Sub-total	**6**

Semester 7	MCs	Semester 8	MCs
CS Breadth / Depth module 4	4	CS Breadth / Depth module 6	4
CS Breadth / Depth module 5	4	CS Breadth / Depth module 7	4
UE	4	UE	4
UE	4		
Sub-total	**16**	**Sub-total**	**12**

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

(updated 16 June 2022)

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Recommended semester schedule
(for students who opt for industrial attachment)

Semester 1	MCs	Semester 2	MCs
MA1521 Calculus for Computing	4	MA2001 Linear Algebra I	4
CS1101S Programming Methodology	4	CS2030S Programming Methodology II	4
CS1231S Discrete Structures	4	CS2040S Data Structures and Algorithms	4
IS1103 Ethics in Computing	4	CS2100 Computer Organisation	4
GE1	4	Group A module for Minor	4
Sub-total	**20**	**Sub-total**	**20**

Semester 3	MCs	Semester 4	MCs
CS2101 Effective Communication for Computing Professionals	4	CS2109S Introduction to AI and Machine Learning	4
CS2103T Software Engineering	4	CS3230 Design and Analysis of Algorithms	4
CS2106 Introduction to Operating Systems	4	ES2660 Communicating in the Information Age	4
ST2334 Probability and Statistics	4	One Science module	4
Group B module for Minor	4	EG3301R DCP Project	6
Sub-total	**20**	**Sub-total**	**22**

Semester 5	MCs	Semester 6	MCs
EG3301R DCP Project	6	CP3880 Advanced Technology Attachment Programme	12
GE2 *	4	UE	4
GE3 *	4		
GE4 *	4		
CS Breadth / Depth module 1	4		
Sub-total	**22**	**Sub-total**	**16**

Semester 7	MCs	Semester 8	MCs
CS Breadth / Depth module 2	4	CS Breadth / Depth module 5	4
CS Breadth / Depth module 3	4	CS Breadth / Depth module 6	4
CS Breadth / Depth module 4	4	CS Breadth / Depth module 7	4
UE	4	UE	4
UE	4	UE	4
Sub-total	**20**	**Sub-total**	**20**

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

(updated 16 June 2022)