

**Bachelor of Computing (Information Security)
with Minor in Innovation & Design**

Cohort AY2026/2027

Course Requirements	Units
Common Curriculum	
CS1010 Programming Methodology ¹	4
GE: Critique and Expression ²	4
GE: Communities and Engagement ²	4
GE: Cultures and Connections ²	4
GE: Data Literacy	4
GE: Singapore Studies ²	4
IS1108 Digital and AI Ethics	4
Interdisciplinary Courses ³	8
Elective 1 for Minor ³ (double-counted as Cross-disciplinary Course)	4
Sub-total for Common Curriculum	40
Programme Requirements	
CS1231S Discrete Structures	4
CS2030 Programming Methodology II	4
CS2040C Data Structures and Algorithms	4
CS2100 Computer Organisation	4
CS2101 Effective Communication for Computing Professionals ⁴	4
CS2103T Software Engineering ⁴	4
CS2105 Introduction to Computer Networks	4
CS2106 Introduction to Operating Systems	4
CS2107 Introduction to Information Security	4
CS3235 Computer Security	4
IS4231 Information Security Management	4
MA1521 Calculus for Computing	4
MA1522 Linear Algebra for Computing	4
ST2334 Probability and Statistics	4
IFS4205 Information Security Capstone Project or CS4238 Computer Security Practice and IFS4103 Penetration Testing Practice	8
Programme electives	8
Computing requirements ⁵	12
Sub-total for Programme Requirements	84
Unrestricted Electives	
CDE3301 Ideas to Proof-of-Concept (over 2 consecutive semesters) ³	12
Elective 2 for Minor ³	4
Other unrestricted electives	20
Sub-total for Unrestricted Electives	36
Total	160

NUS Innovation & Design Programme
College of Design and Engineering

Notes:

- ¹ Digital Literacy is satisfied by CS1010.
- ² Students may read equivalent courses in NUS College (NUSC), University Town College Programme (UTCP), and Ridge View Residential Programme (RVRC).
- ³ Students in this Minor are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Course if they are planning to read CDE2300 Product Design and Innovation or CDE2310 Fundamentals of Systems Design, respectively. DTK1234 should be read before CDE2300 and EG1311 before CDE2310.

Students should clear at least one elective course prior to CDE3301. Students in competition teams may enrol in CDE3301C Complex Systems Design: From Mission to Prototype in Semester 3 to Semester 4 (Year 2) or Semester 5 to Semester 6 (Year 3).

- ⁴ CS2101 and CS2103T must be taken in the same semester as a twinned pair.
- ⁵ Students are required to satisfy at least 6 units of Industrial Experience Requirement. Those with GPA of 4.00 or higher may opt to replace Industry Experience Requirement with CP4101 B.Comp. Dissertation.

Sample study plan

(for students who opt for vacation internship and may want to upgrade to a Second Major)

Semester 1	Units	Semester 2	Units
MA1521 Calculus for Computing	4	MA1522 Linear Algebra for Computing	4
CS1010 Programming Methodology	4	ST2334 Probability and Statistics	4
CS1231S Discrete Structures	4	CS2030 Programming Methodology II	4
IS1108 Digital and AI Ethics	4	CS2040C Data Structures and Algorithms	4
Interdisciplinary Course 1 *	4	CS2100 Computer Organisation	4
		Elective 1 for Minor *	4
Sub-total	20	Sub-total	24

Semester 3	Units	Semester 4	Units
CS2105 Introduction to Computer Networks	4	CS2101 Effective Communication for Computing Professionals	4
CS2106 Introduction to Operating Systems	4	CS2103T Software Engineering	4
CS2107 Introduction to Information Security	4	CS3235 Computer Security	4
GE	4	GE	4
Elective 2 for Minor	4	CDE3301 Ideas to Proof-of-Concept	6
Sub-total	20	Sub-total	22

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

Semester 5	Units	Semester 6 – can be used for SEP	Units
CDE3301 Ideas to Proof-of-Concept	6	Computing course 1	4
IFS4205 Information Security Capstone Project	8	Computing course 2	2
GE	4	UE	4
GE	4	UE	4
		UE	4
Sub-total	22	Sub-total	18

Semester 7	Units	Semester 8	Units
Programme elective 1	4	IS4231 Information Security Management	4
Interdisciplinary Course 2	4	Programme elective 2	4
GE	4	UE	4
UE	4		
Sub-total	16	Sub-total	12

* Students are highly recommended to read DTK1234 Design Thinking or EG1311 Design and Make as an Interdisciplinary Course if they are planning to read CDE2300 Product Design and Innovation or CDE2310 Fundamentals of Systems Design as Elective 1 for the Minor (which can be double-counted as Cross-disciplinary Course).

Sample study plan

(for students who opt for full-semester internship and may want to upgrade to a Second Major)

Semester 1	Units	Semester 2	Units
MA1521 Calculus for Computing	4	MA1522 Linear Algebra for Computing	4
CS1010 Programming Methodology	4	ST2334 Probability and Statistics	4
CS1231S Discrete Structures	4	CS2030 Programming Methodology II	4
IS1108 Digital and AI Ethics	4	CS2040C Data Structures and Algorithms	4
Interdisciplinary Course 1 *	4	CS2100 Computer Organisation	4
		Elective 1 for Minor *	4
Sub-total	20	Sub-total	24

Semester 3	Units	Semester 4	Units
CS2105 Introduction to Computer Networks	4	CS2101 Effective Communication for Computing Professionals	4
CS2106 Introduction to Operating Systems	4	CS2103T Software Engineering	4
CS2107 Introduction to Information Security	4	CS3235 Computer Security	4
GE	4	GE	4
Elective 2 for Minor	4	CDE3301 Ideas to Proof-of-Concept	6
Sub-total	20	Sub-total	22

Semester 5	Units	Semester 6	Units
CDE3301 Ideas to Proof-of-Concept	6	CP3880 Advanced Technology Attachment Programme ^	12
IFS4205 Information Security Capstone Project	8		
GE	4		
GE	4		
Sub-total	22	Sub-total	12

Semester 7	Units	Semester 8	Units
Programme elective 1	4	IS4231 Information Security Management	4
Interdisciplinary Course 2	4	Programme elective 2	4
GE	4	UE	4
UE	4	UE	4
UE	4	UE	4
Sub-total	20	Sub-total	20

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^ Students with GPA of 4.00 or higher may opt to replace CP3880 with CP4101 in their final year.

Sample study plan

(for students who opt for vacation internship and not planning to upgrade to a Second Major)

Semester 1	Units	Semester 2	Units
MA1521 Calculus for Computing	4	MA1522 Linear Algebra for Computing	4
CS1010 Programming Methodology	4	ST2334 Probability and Statistics	4
CS1231S Discrete Structures	4	CS2030 Programming Methodology II	4
IS1108 Digital and AI Ethics	4	CS2040C Data Structures and Algorithms	4
GE	4	CS2100 Computer Organisation	4
Sub-total	20	Sub-total	20

Semester 3	Units	Semester 4	Units
CS2105 Introduction to Computer Networks	4	CS2101 Effective Communication for Computing Professionals	4
CS2106 Introduction to Operating Systems	4	CS2103T Software Engineering	4
CS2107 Introduction to Information Security	4	CS3235 Computer Security	4
GE	4	Elective 1 for Minor *	4
Interdisciplinary Course 1 *	4	Elective 2 for Minor	4
Sub-total	20	Sub-total	20

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

Semester 5 – can be used for SEP	Units	Semester 6	Units
Computing course 1	4	CDE3301 Ideas to Proof-of-Concept	6
Computing course 2	2	GE	4
UE	4	GE	4
UE	4	GE	4
UE	4		
Sub-total	18	Sub-total	18

Semester 7	Units	Semester 8	Units
CDE3301 Ideas to Proof-of-Concept	6	IS4231 Information Security Management	4
IFS4205 Information Security Capstone Project	8	Programme elective 1	4
Interdisciplinary Course 2	4	Programme elective 2	4
		UE	4
		UE	4
Sub-total	18	Sub-total	20

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IS1108 Digital and AI Ethics	4	CS2040C Data Structures and Algorithms	4
GE	4	CS2100 Computer Organisation	4
Sub-total	20	Sub-total	20

Semester 3	Units	Semester 4	Units
CS2105 Introduction to Computer Networks	4	CS2101 Effective Communication for Computing Professionals	4
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CS2107 Introduction to Information Security	4	CS3235 Computer Security	4
GE	4	Elective 1 for Minor *	4
Interdisciplinary Course 1 *	4	Elective 2 for Minor	4
Sub-total	20	Sub-total	20

Semester 5	Units	Semester 6	Units
CP3880 Advanced Technology Attachment Programme ^	12	CDE3301 Ideas to Proof-of-Concept	6
		Interdisciplinary Course 2	4
		GE	4
		GE	4
		GE	4
Sub-total	12	Sub-total	22

Semester 7	Units	Semester 8	Units
CDE3301 Ideas to Proof-of-Concept	6	IS4231 Information Security Management	4
IFS4205 Information Security Capstone Project	8	Programme elective 1	4
UE	4	Programme elective 2	4
UE	4	UE	4
		UE	4
		UE	4
Sub-total	22	Sub-total	24

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