

(Study Scheme - English)

Programme Title Computer Science and Engineering	
Study Scheme <p style="text-align: center;">Applicable to students admitted in 2021-22 and thereafter</p>	
Major Programme Requirement	
Students are required to complete a minimum of 72 units of courses as follows:	
	Units
1. School Package: BIO1008, CSC1001, 1002, DDA2001, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. Required Courses: CSC3001, 3002, 3050, 3100, 3150, 3170, 4001, 4005, EIE2050, PHY1002	29
3. Elective Courses: Six courses selected from two groups, at least 3 from (a) and 2 from (b), with the total of 18 credit units.	
(a) CSC3120, 3180, 3185, 3200, 4008, 4100, 4120, 4140, 4150, 4160, 4170, 4180, 4190, DDA2020, 4260, EIE3080	9-12
(b) BIM3001, DDA4002, 4240, 4250, EIE3280, ERG4001, MAT3007, 3220	6-9
Total:	72
Notes:	
[a] EIE2050, all CSC courses, and all elective courses will be included in the calculation of Major GPA for honours classification.	

(Study Scheme - Chinese)

課程名稱 計算機科學與技術	
修讀辦法 二〇二一至二二年度及以後入學學生適用	
主修課程要求	
學生須至少修畢以下科目共 72 學分：	
	學分
1. 學院課程： BIO1008, CSC1001, 1002, DDA2001, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. 必修科目： CSC3001, 3002, 3050, 3100, 3150, 3170, 4001, 4005, EIE2050, PHY1002	29
3. 選修科目： 從以下課程中選修6科，(a)項的科目中修讀至少3科，(b)項的 科目中修讀至少2科，選修科目總學分為18學分	
(a) CSC3120, 3180, 3185, 3200, 4008, 4100, 4120, 4140, 4150, 4160, 4170, 4180, 4190, DDA2020, 4260, EIE3080	9-12
(b) BIM3001, DDA4002, 4240, 4250, EIE3280, ERG4001, MAT3007, 3220	6-9
共:	72
註： [a] EIE2050，CSC全部科目以及全部專業選修科目將會計入主修科目之平均績點，并用 以釐定學位等級。	

(Recommended Course Pattern - English)

Recommended Course Pattern

1. Sufficient units should be allowed in each term for students to fulfill the University Core Requirements, which include: (i) 3 units of Chinese; (ii) 12 units of English; (iii) 1 unit of IT; (iv) 18 units of General Education; and (v) 2 units of Physical Education and Health.
2. Programmes with different streams/concentrations are required to provide the recommended pattern for each stream/concentration.

Major Programme Requirement of <u>Computer Science and Engineering</u>		
	Recommended Course Pattern	Units
First Year of Attendance	1 st term School Package: BIO1008, CSC1001, MAT1001	9
	2 nd term School Package: DDA2001, CSC1002, MAT1002, PHY1001	10
Second Year of Attendance	1 st term School Package: MAT2040 Major Required: CSC3001, 3002	3 6
	2 nd term School Package: STA2001 Major Required: CSC3100, EIE2050, PHY1002	3 8
Third Year of Attendance	1 st term Major Required: CSC3050, 3150 Major Elective(s): Any one elective course	6 3
	2 nd term Major Required: CSC3170, 4001 Major Elective(s): Any one elective course	6 3
Fourth Year of Attendance	1 st term Major Required: CSC4005 Major Elective(s): Any two elective courses	3 6
	2 nd term Major Elective(s): Any two elective courses	6
Total (Major Requirement including School Package):		72

(Recommended Course Pattern – Chinese)

修課推介

1. 每學期均須預留足夠學分讓同學符合大學核心課程要求，包括：（一）中文三學分；（二）英文十二學分；（三）信息科技一學分；（四）通識教育十八學分及（五）體育與健康兩學分。
2. 有不同專修範圍的課程須為每項專修範圍提供課推介。

計算機科學與技術主修課程要求		
	修課推介	學分
第一修業學年	第一學期 學院課程: BIO1008, CSC1001, MAT1001	9
	第二學期 學院課程: DDA2001, CSC1002, MAT1002, PHY1001	10
第二修業學年	第一學期 學院課程: MAT2040 主修必修科目: CSC3001, 3002	3 6
	第二學期 學院課程: STA2001 主修必修科目: CSC3100, EIE2050, PHY1002	3 8
第三修業學年	第一學期 主修必修科目: CSC3050, 3150 主修選修科目: 任何一科選修科目	6 3
	第二學期 主修必修科目: CSC3170, 4001 主修選修科目: 任何一科選修科目	6 3
第四修業學年	第一學期 主修必修科目: CSC4005 主修選修科目: 任何兩科選修科目	3 6
	第二學期 主修選修科目: 任何兩科選修科目	6
合共 (主修要求包括學院課程):		72

Course List

I. School Package for the School of Data Science

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
BIO1008	Chemistry and Life Sciences	化學與生命科學	3
CSC1001	Introduction to Computer Science: Programming Methodology	計算機科學導論：程序設計方法	3
CSC1002	Computational Laboratory	計算機實驗	1
DDA2001	Introduction to Data Science	數據科學基礎	3
MAT1001	Calculus I	微積分（一）	3
MAT1002	Calculus II	微積分（二）	3
MAT2040	Linear Algebra	線性代數	3
PHY1001	Mechanics	力學	3
STA2001	Probability and Statistics I	概率及統計（一）	3

II. Major Required Courses

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
CSC3001	Discrete Mathematics	離散數學	3
CSC3002	Introduction to Computer Science: Programming Paradigms	計算機科學導論：程序設計範式	3
CSC3050	Computer Architecture	計算機體系結構	3
CSC3100	Data Structures	數據結構	3
CSC3150	Operating System	操作系統	3
CSC3170	Database System	數據庫系統	3
CSC4001	Software Engineering	軟件工程	3
CSC4005	Distributed and Parallel Computing	分佈式及並行式計算	3
EIE2050	Digital Logic and Systems	數字邏輯與系統	3
PHY1002	Physics Laboratory	物理實驗	2

III. Major Elective Courses

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
BIM3001	Bioinformatics	生物信息學	3
CSC3120	Programming Language	編程語言	3
CSC3180	Fundamentals of Artificial Intelligence	人工智能之基本原理	3
CSC3185	Introduction to Multimedia Systems	多媒體系統導論	3
CSC3200	Video Games Design and Development	電子遊戲設計與開發	3
CSC4008	Techniques for Data Mining	數據挖掘技術	3
CSC4100	Natural Language Processing	自然語言處理	3
CSC4120	Design and Analysis of Algorithms	算法設計及分析	3
CSC4140	Computer Graphics	計算機圖形學	3

CSC4150	Mobile Computing and Applications Development	流動計算和應用開發	3
CSC4160	Cloud Computing	雲端計算	3
CSC4170	Social Networks	社交網絡	3
CSC4180	Compiler Construction	編譯器設計	3
CSC4190	Internet Programming and Applications	互联网编程与应用	3
DDA2020	Machine Learning	機器學習	3
DDA4002	Stochastic Simulation	隨機模擬	3
DDA4240	Data Privacy and Ethics	數據隱私和道德	3
DDA4250	Mathematical Introduction to Deep Learning	深度學習中的數學	3
DDA4260	Networked Life	數據科學之應用：生活中的網絡	3
EIE3080	Microprocessors and Computer Systems	微處理與計算機系統	3
EIE3280	Networks: Technology, Economics and Society	网络: 技术、经济和社会	3
ERG4001	Principles of Entrepreneurship	創業原則	3
MAT3007	Optimization	最優化	3
MAT3220	Optimization II	最優化（二）	3