

## Computer Science and Engineering Course List

### I. School Package for the School of Science and Engineering

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
BIO2001	General Biology	普通生物	3
CHM1001	General Chemistry	普通化學	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
Option A*	MAT1001	Calculus I	微積分（一）
	MAT1002	Calculus II	微積分（二）
Option B*	MAT1003	Mathematical Analysis I	數學分析（一）
	MAT1004	Mathematical Analysis II	數學分析（二）
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

\*Students must complete either Option A or Option B.

### II. Major Required Courses

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
EIE2050	Digital Logic and Systems	數字邏輯與系統	3
PHY1002	Physics Laboratory	物理實驗	2
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

### III. Major Elective Courses

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
CSC3180	Fundamentals of Artificial	人工智能之基本原理	3

	Intelligence		
CSC3185	Introduction to Multimedia Systems	多媒體系統導論	3
CSC4008*	Techniques for Data Mining	數據挖掘技術	3
CSC4020*	Fundamentals of Machine Learning	機器學習之基礎課程	3
CSC4120	Design and Analysis of Algorithms	算法設計及分析	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
EIE3001	Signals and Systems	信號與系統	3
EIE3080*	Microprocessors and Computer Systems	微處理與計算機系統	3
EIE4001	Introduction to Internet Engineering	網絡工程導論	3
EIE4007	Computer and Network Security	計算機及網絡安全	3
EIE4180	Network Software Design and Programming	網絡軟件之程序設計	3
EIE4190	Multimedia Coding and Processing	多媒體編碼和處理	3
MAT3007	Optimization	最優化	3
MAT3220	Operations Research	運籌學	3
PHY2001	Electricity and Magnetism	電磁學	3
BME4005	Bioinformatics	生物信息學	3
DME3004	Aesthetic and Human Values in Engineering Product Design	工程產品設計審美與人類價值	3
DME3007	Simulation	仿真	3
DME4004	Production Planning and Project Management	生產策劃與項目管理	3
DME4006	Organizational Behaviour	組織行為學	3
ECO2011	Basic Microeconomics	基本個體經濟學	3
ERG3001	Engineering Ethics, Safety and Practice	工程倫理、安全及實務	3
ERG3010	Data and Knowledge Management	數據與知識管理	3
ERG4001	Principles of Entrepreneurship	創業原則	3