

(Study Scheme - English)

Programme Title Statistics	
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 70 units of courses as follows:	
	Units
1. School Package: BIO1008, CSC1001, 1002, DDA2001, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. Required Courses: DDA3005, MAT2006, 2007, 3007, STA2002, 3001, 3002, 3005, 3020, 3100, 4050	33
3. Elective Courses: Any four courses selected from the following: DDA4010, 4210, 4220, 4230, 4240, 4250, 4260, MAT3006, 3220, 3280, STA4001, 4002, 4003, 4010, 4011, 4020	12
Total:	70
Notes: [a] All required and elective courses will be included in the calculation of Major GPA for honours classification.	

(Study Scheme – Chinese)

課程名稱 統計學	
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70 學分：	
	學分
1. 學院課程： BIO1008, CSC1001, 1002, DDA2001, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. 必修科目： DDA3005, MAT2006, 2007, 3007, STA2002, 3001, 3002, 3005, 3020, 3100, 4050	33
3. 選修科目： 從以下選修四科： DDA4010, 4210, 4220, 4230, 4240, 4250, 4260, MAT3006, 3220, 3280, STA4001, 4002, 4003, 4010, 4011, 4020	12
共：	70
註：	
[a] 所有主修必修和主修選修科目將會計入主修科目之平均績點，並用以釐定學位等級。	

(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>Statistics</u>		
	Recommended Course Pattern	Units
First Year of Attendance	1 st term School Package: BIO1008, CSC1001, MAT1001	9
	2 nd term School Package: CSC1002, DDA2001, MAT1002, PHY1001	10
Second Year of Attendance	1 st term School Package: MAT2040, STA2001 Major Required: MAT2006	6 3
	2 nd term Major Required: MAT2007, 3007, STA2002	9
Third Year of Attendance	1 st term Major Required: DDA3005, STA3001, 3020	9
	2 nd term Major Required: STA3002, 3005, 3100	9
Fourth Year of Attendance	1 st term Major Elective(s): three courses	9
	2 nd term Major Required: STA4050 Major Elective(s): one course	3 3
Total (Major Requirement including School Package):		70

(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。

<u>統計學主修課程要求</u>		
	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: CSC1002, DDA2001, MAT1002, PHY1001	10
第二修業學年	第一學期 學院課程: MAT2040, STA2001 主修必修科目: MAT2006	6 3
	第二學期 主修必修科目: MAT2007, 3007, STA2002	9
第三修業學年	第一學期 主修必修科目: DDA3005, STA3001, 3020	9
	第二學期 主修必修科目: STA3002, 3005, 3100	9
第四修業學年	第一學期 主修選修科目: 三科	9
	第二學期 主修必修科目: STA4050 主修選修科目: 一科	3 3
合共 (主修要求包括學院課程):		70

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)
DDA3005	Numerical Methods	數值方法	3
MAT2006	Elementary Real Analysis	基礎實分析	3
MAT2007	Elementary Real Analysis II	基礎實分析（二）	3
MAT3007	Optimization	最優化	3
STA2002	Probability and Statistics II	概率及統計（二）	3
STA3001	Linear Models	線性模型	3
STA3002	Generalized Linear Models	廣義線性模型	3
STA3005	Statistical Computing	統計計算	3
STA3020	Statistical Inference	統計推斷	3
STA3100	Statistical Inference II	統計推斷（二）	3
STA4050	Statistical Capstone	統計畢業設計	3

III. Major Elective Courses

Course Code	Course Title (English)	Course Title (Chinese)	Unit(s)
DDA4010	Bayesian Statistics	貝葉斯統計	3
DDA4210	Advanced Machine Learning	高等機器學習	3
DDA4220	Deep Learning and Applications	深度學習與應用	3
DDA4230	Reinforcement Learning	強化學習	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
MAT3006	Real Analysis	實分析	3
MAT3220	Optimization II	最優化（二）	3

MAT3280	Probability Theory	概率論	3
STA4001	Stochastic Processes	隨機過程	3
STA4002	Multivariate Techniques with Business Applications	多元技術及其商業應用	3
STA4003	Time Series	時間序列	3
STA4010	Selected Topics in Statistics I	統計學專題（一）	3
STA4011	Selected Topics in Statistics II	統計學專題（二）	3
STA4020	Statistical Modelling in Financial Markets	金融市場的統計建模	3