

(Study Scheme – English)

Programme Title

Mathematics and Applied Mathematics

Study Scheme

Applicable to students admitted in 2017-18 and thereafter

Major Programme Requirement

Studies in Mathematics and Applied Mathematics are divided into THREE main streams and students are required to specialize in one of the streams:

- (1) Pure mathematics
- (2) Applied mathematics
- (3) Financial mathematics

Pure Mathematics Stream

Students are required to complete a minimum of 72 units of courses as follows:

	Units
1. School Package: BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002,-2040, PHY1001, STA2001	25
2. Required Courses: MAT2002, 2006,3004, 3253, 4001, 4002, 4003, 4033 4220, PHY1002	29
3. Elective Courses: Six courses selected from the following: CSC3001, MAT3005, 3006, 3007, 3040, 3093, 3220, 3280,3300, 4010, 4004, 4500, FMA4800	18

Total: 72

Applied Mathematics Stream

Students are required to complete a minimum of 72 units of courses as follows:

	Units
1. School Package: BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002,-2040, PHY1001, STA2001	25
2. Required Courses: MAT2002, 2006,3004, 3007, 3220, 3253, 4001, 4033, 4220, PHY1002	29
3. Elective Courses: Six courses selected from the following: BME4005, CHM2002, CSC3001, 3002, 3100, FMA4800, IER3500, 4005, MAT 3006, 3040, 3280, 3300, 4004,4010, 4500, PHY2001, 3002, 3201,4260	18

Financial Mathematics Stream

Students are required to complete a minimum of 72 units of courses as follows:

	Units
1. School Package: BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002,-2040, PHY1001, STA2001	25
2. Required Courses: ECO2031 , ECO3121 *, FIN3080, MAT2002, 2006, 3280, 4001, 4220, - PHY1002, STA3100, 4001	29
3. Elective Courses: Six courses selected from the following: ACT4253, ECO2011, 3410, FMA3200, 4100, 4200, 4800, MAT3006, 3007, 3040, 3220, 4500, RMS4001, 4050, 4060, STA4004	18

*Approval Pending

Total: 72

Remark: Students can choose to take either MAT1003 and MAT1004 or MAT1001 and MAT1002 to fulfill the graduate requirement.

Explanatory Notes:

[a] Courses included in the calculation of Major GPA for honors classification

(i) Pure Mathematics Stream

CSC3001, FMA4800, and MAT courses at 2000 and above level.

(ii) Applied Mathematics Stream

BME4005, CHM2002, CSC3001, 3002, 3100, FMA4800, IER3500, 4005, PHY2001, 3002, 3201, 4260, and MAT courses at 2000 and above

(iii) Financial Mathematics Stream

ACT4253, ECO2011, ~~2031~~, ~~3121~~*, 3410, FIN3080, FMA3200, 4100, 4200, 4800, RMS4001, 4050, 4060, STA3100, 4001, 4004, and MAT courses at 2000 and above level.

課程名稱

數學及應用數學

修讀辦法

二〇一七至一八年度及以後入學學生適用

主修課程要求

本課程分設三項專修範圍，學生須選修其中一項專修範圍：

- (1) 理論數學
- (2) 應用數學
- (3) 金融數學

理論數學專修範圍

學生須至少修畢以下科目共 72 學分：

	學分
1. 學院課程： BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. 必修科目： MAT2002, 2006, 3004, 3253, 4001, 4002, 4003, 4033, 4220, PHY1002	29
3. 選修科目： 從以下選修其中六科： CSC3001, MAT3005, 3006, 3007, 3040, 3093, 3220, 3280, 3300, 4010, 4004, 4500, FMA4800	18

共： 72

應用數學專修範圍

學生須至少修畢以下科目共 72 學分：

	學分
1. 學院課程： BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002, 2040, PHY1001, STA2001	25

2.	必修科目： MAT2002, 2006, 3004, 3007, 3220, 3253, 4001, 4033, 4220, PHY1002	29
3.	選修科目： 從以下選修其中六科： BME4005, CHM2002, CSC3001, 3002, 3100, FMA4800, IER3500, 4005, MAT 3006, 3040, 3280, 3300, 4004, 4010, 4500, PHY2001, 3002, 3201, 4260	18
	共：	<hr/> 72

金融數學專修範圍

學生須至少修畢以下科目共 72 學分：

	學分
1. 學院課程： BIO2001, CHM1001, CSC1001, 1002, MAT1001, 1002, 2040, PHY1001, STA2001	25
2. 必修科目： ECO2031 , ECO3121 *, FIN3080, MAT2002, 2006, 3280, 4001, 4220, PHY1002, STA3100, 4001	29
3. 選修科目： 從以下選修其中六科： ACT4253, ECO2011, 3410, FMA3200, 4100, 4200, 4800, MAT3006, 3007, 3040, 3220, 4500, RMS4001, 4050, 4060, STA4004	18

*Approval Pending

註：	共：	<hr/> 72
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[a] 下列科目將會計入主修科目之平均績點，並用以釐定學位等級：

(i) 理論數學專修範圍

CSC3001, FMA4800; MAT2000及以上程度的科目

(ii) 應用數學專修範圍

BME4005, CHM2002, CSC3001, ~~3150~~, 3002, ~~4120~~-3100, FMA4800, IER3500, 4005, PHY2001, 3002,
3201, 4260; MAT 2000 及以上程度的科目

(iii) 金融數學專修範圍

ACT4253, ECO2011, ~~2031~~, ~~3121~~*, 3410, FIN3080, FMA3200, 4100, 4200, 4800, RMS4001, 4050, 4060,
STA3100, 4001, 4004; MAT 2000 及以上程度的科目

(Recommended Course Pattern - English)

Recommended Course Pattern

- 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.
- Programmes with different streams/concentrations are required to provide the recommended pattern for each stream/concentration.

Major Programme Requirement of <u>Mathematics and Applied Mathematics</u>		
	Recommended Course Pattern	Units
First Year of	1 st term School Package: CHM1001, MAT1001, PHY1001	9
	2 nd term School Package: CSC1001, CSC1002, MAT1002, STA2001	10
Second Year of Attendance	1 st term School Package: MAT2040 Major Required: MAT2006, PHY1002,	3 5
	2 nd term School Package: BIO2001 Major Required: MAT2002, MAT3253 ^[1] ^[2] , STA3100 ^[3]	3 6
Third Year of Attendance	1 st term Major Required: ECO2031^[3] , ECO3121* ^[3] , MAT3004 ^[1] ^[2] , MAT3007 ^[2] , MAT4220*, MAT3280 ^[3] Major Elective(s): one course	6-9 3
	2 nd term Major Required: MAT3220 ^[2] , MAT4002 ^[1] , MAT4003 ^[1] , STA4001 ^[3] Major Elective(s): one course	3-6 3
Fourth Year of Attendance	1 st term Major Required: FIN3080 ^[3] , MAT4033 ^[1] ^[2] , MAT4001 Major Elective(s): two courses	6 6
	2 nd term Major Elective(s): two courses	6
Total (Major Requirement including School Package):		72

Explanatory Notes:

- [1] Applicable to Pure Mathematics Stream only.
 [2] Applicable to Applied Mathematics Stream only.
 [3] Applicable to Financial Mathematics Stream only.

*Approval Pending

(Recommended Course Pattern – Chinese)

修課推介

- 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)資訊科技一學分；(四)通識教育十八學分及(五)體育與健康兩學分。
- 有不同專修範圍的課程須為每項專修範圍提供修課推介。

數學及應用數學主修課程要求		
	修課推介	學分
第一修業學年	第一學期 學院課程: CHM1001, MAT1001, PHY1001	9
	第二學期 學院課程: CSC1001, CSC1002, MAT1002, STA2001	10
第二修業學年	第一學期 學院課程: MAT2040 主修必修科目: MAT2006, PHY1002,	3 5
	第二學期 學院課程: BIO2001 主修必修科目: MAT2002, MAT3253 ^{[1] [2]} , STA3100 ^[3]	3 6
	第一學期 主修必修科目: ECO2031^[3] , ECO3121* ^[3] , MAT3004 ^{[1][2]} , MAT3007 ^[2] , MAT4220, MAT3280 ^[3] 主修選修科目: 一科	6-9 3
第三修業學年	第二學期 主修必修科目: MAT3220 ^[2] , MAT4002 ^[1] , MAT4003 ^[1] , STA4001 ^[3] 主修選修科目: 一科	3-6 3
	第一學期 主修必修科目: FIN3080 ^[3] , MAT4033 ^{[1] [2]} , MAT4001 主修選修科目: 兩科	3-9 6
第四修業學年	第二學期 主修選修科目: 兩科	6
	合共 (主修要求包括學院課程):	72

註：

[1] 只適用於理論數學專修範圍。

[2] 只適用於應用數學專修範圍。

[3] 只適用於金融數學專修範圍。

*Approval Pending

Remark: Students can choose to take either MAT1003 and MAT1004 or MAT1001 and MAT1002 to fulfill the graduate requirement.