應用數學系碩士班

108 學年度

最低修業年限	二年(特優者得申請一年畢業)
應修學分數	24 學分
應修（應選）課程及符合畢業資格之修課相關規定	共同必修： 至少需通過二學期論文研討。 個別必修： 分析與幾何組：1.實變函數論(一)(3學分) 2.下列課程擇一(3學分)：實變函數論（二），常微分方程（一），常微分方程（二），偏微分方程（一），偏微分方程（二），近世代數（一），近世代數（二），高等機率論。 組合數學組：1.離散數學專題至少需通過二次。 2.圖論一學期(3學分)，組合學導論一學期(3學分)，共 6 學分
備註	(1)入學第一學期結束前完成學術研究倫理教育課程。

MS Program of the Department of Applied Mathematics

Academic Year 2019

Period of Study	two years (Students with outstanding academic performance may apply for graduation after the two-year study.
Graduation Credits	24 credits
Compulsory Courses and Graduation Requirements	The Master degree course regulations in the department are as follows: (i)Common Requirement: passing the "Colloquium" at least twice. (ii) Individual Requirements: (a)"Analysis and Geometry" program: Passing the course"Real Analysis(I)" which is of 3 credits. Passing one of the following 3 credits courses: Real Analysis(II), Ordinary Differential Equations(I)、Ordinary Differential Equations(II), Partial Differential Equations (I), Partial Differential Equations (II), Modern Algebra(I), Modern Algebra(II), Advanced Probability. (b)"Combinatorics" program: Passing the course "Topics in Discrete Mathematics" at least twice; passing the course "Graph Theory" which is of 3 credits; passing the course "Introduction to Combinatorics" which is of 3 credits.
Remarks	1. Students should study "Academic Ethics Education" program before the end of the first semester after enrollment.

應用數學系碩士班(輔所)
108 學年度(108.12 修訂)

應修學分數	12
應修（應選）課程	分析與幾何組： (1)必修 6 學分：本系所開授實變函數論(一)(3 學分)，下列課程擇一(3 學分)：實變函數論（二），常微分方程（一），常微分方程（二），偏微分方程（一），偏微分方程（二），近世代數（一），近世代數（二），高等機率論。 (2)選修：本系所開授非專題性課程 2 門共 6 學分。 組合數學組： (1) 必修 6 學分：本系所開授圖論 3 學分、組合學導論 3 學分。 (2)選修：本系所開授非專題性課程 2 門共 6 學分。

The Department of Applied Mathematics(Minor Program)
Academic Year 2019

Minimum Credits	12
Curriculum and Regulations	The requirements for the minor in Applied Mathematics ,must complete a minimum of 12 credits from the following: "Analysis and Geometry" program: (1) Required courses(6 credits):"Real Analysis (I)" which is of 3credits; another 3credits has to be taken and completed from one amount the following list of courses: "Real Analysis (II)"、Ordinary Differential Equations(I) 、Ordinary Differential Equations(II) 、Partial Differential Equations(I) 、Partial Differential Equations(II)、Modern Algebra(I) 、Modern Algebra(II) 、Advanced Probability. (2) Elective courses (6 credits): two graduate level courses, which are not conducted in the form of a seminar. "Combinatorics" program: (1) Required courses (6 credits):"Graph Theory" which is of 3 credits; "Introduction to Combinatorics" which is of 3 credits. (2) Elective courses (6 credits): two graduate level courses, which are not conducted in the form of a seminar.

應用數學系博士班
108 學年度

最低修業年限	三年(特優者得申請二年畢業)
應修學分數	18 學分
直升博士生 應修學分數	碩士生逕行修讀博士學位,必須修滿 30 學分,學士生逕行修讀博士學位,必須修滿 36 學分。
應修(應選)課程及符合畢業資格之修課相關規定	1.至少須選修本系所開課程 12 學分。 2.必修課程 　共同必修:至少需通過4學期論文研討。 　個別必修: 　　分析與幾何組:實變函數論二學期,共6學分。 　　組合數學組:圖論一學期(3學分),組合學導論一學期(3學分),共6學分及離散數學專題至少需通過4次。 　　數學建模與科學計算組:應用數學方法一學期(3學分), 　　　　　　　　　　　科學計算導論一學期(3學分),共6學分。 　3.英文規定必須通過下列三項之一: 　　(1)曾參加 TOEFL 考試 61 分(滿分 120)以上或 Paper-based TOEFL 500 分或 CBT-TOEFL 173 分。 　　(2)通過全民英檢中高級初試(含)以上。 　　(3)曾獲國科會千里馬計劃補助至非華語系國家出國進修半年(含)以上。 　　(4)修習本校科技英文或論文寫作或讀、寫類之英文課程達 2 學分,且成績達 70 分以上。
備註	1.若於碩士班已修過並及格之實變函數論可向系上申請免修 2.入學第一學期結束前完成學術研究倫理教育課程

Ph.D Program of Department of Applied Mathematics
Academic Year 2019

Period of Study	three years (Students with outstanding academic performance may apply for graduation after the two-year study.)
Graduation Credits	18 credits
Compulsory Courses and Graduation Requirements	1. Students have to complete at least 18 credits which is include 12 credits must earned from department. 2. Compulsory Courses: Compulsory Courses: passing the "Colloquium" at least four times. Individual Requirements: Analysis and Geometry program: passing a two-semester course sequence in "Real Analysis" which is of 6 credits. Combinatorics program: passing the course "Topics in Discrete Mathematics" at least four times; passing the course "Graph Theory" which is of 3 credits; passing the course "Introduction to Combinatorics" which is of 3 credits. Mathematical Modeling and Scientific Computing program: passing each a semester course sequence in "Methods of Applied

	Mathematics" and in "Introduction to Scientific Computing" which is of 6 credits.
Other Requirements	1.Students who have passing the course sequence in "Real Analysis" can apply for exemption. 2.Students should study "Academic Ethics Education" program before the end of the first semester after enrollment.

應用數學系博士班(輔所)
108 學年度(108.12 修訂)

應修學分數	12
應修（應選）課程	分析與幾何組： (1)必修 6 學分：實變函數論(一)(3 學分)，下列課程擇一(3 學分)：實變函數論（二），常微分方程（一），常微分方程（二），偏微分方程（一），偏微分方程（二），近世代數（一），近世代數（二），高等機率論。 (2)選修：本系所開授非專題性課程 2 門共 6 學分。 組合數學組： (1) 必修 6 學分：本系所開授圖論 3 學分、組合學導論 3 學分。 (2)選修：本系所開授非專題性課程 2 門共 6 學分。 數學建模與科學計算組： (1)必修 6 學分：本系所開授科學計算導論 3 學分、應用數學方法 3 學分。 (2)選修：本系所開授非專題性課程 2 門共 6 學分。
備註	

The Department of Applied Mathematics(Minor Program)
Academic Year 2019

Minimum Credits	
Curriculum and Regulations	The requirements for the minor in Applied Mathematics ,must complete a minimum of 12 credits from the following: "Analysis and Geometry" program: (1) Required courses(6 credits): "Real Analysis (I)" which is of 3credits; another 3credits has to be taken and completed from one amount the following list of courses: "Real Analysis (II)"、Ordinary Differential Equations(I) 、Ordinary Differential Equations(II) 、Partial Differential Equations(I) 、Partial Differential Equations(II)、Modern Algebra(I) 、Modern Algebra(II) 、Advanced Probability. (2) Elective courses (6 credits): two graduate level courses, which are not conducted in the form of a seminar. "Combinatorics" program: (1) Required courses 6 credits:"Graph Theory" which is of 3 credits; passing the course "Introduction to Combinatorics" which is of 3 credits. (2) Elective courses (6 credits): two graduate level courses, which are not conducted in the form of a seminar. "Mathematical Modeling and Scientific Computing" program: (1) Required courses(6 credits):"Introduction to Scientific Computing (3

	credits); "Methods of Applied Mathematics" (3 credits). (2) Elective courses (6 credits):two graduate level courses, which are not conducted in the form of a seminar.
Note	