Course Description

Department of Mathematics

Nature of the course ☐ required ☑ elective	Area ☑ 分析				
Course number		Section number	免填	Number of credits	3
Course title	課程名稱： Functions of a complex variable, 2				
Instructor	教授： 余正道				

I. ＊Contents：

Elliptic functions, conformal mappings, Riemann surfaces

II. Course prerequisite：

Functions of a complex variable

III. ＊Reference material (textbook(s))：

Ahlfors, Complex Analysis.

IV. ＊Grading scheme：請填寫各項計分之百分比，例如：期中30% 期末40% 作業10% 報告20%，總計100%

Homework 50%

Exams 50%

V. ＊Course Goal：

　　This course is a continuation of the course "Functions of a complex variable" in the first semester. Through the two courses, we cover the basic materials in complex analysis. In this second part, we focus on the introduction of elliptic functions, and the more geometric aspects of the complex analysis, including the conformal mappings, Riemann surfaces, and the uniformization theorem. We hope to equip students attending to this course enough tools from complex analysis in order to attack more advanced topics in modern mathematics, e.g. modular functions, complex algebraic geometry, etc.

1. ＊號為必填欄位
2. 大綱內容字數英文最少200字以上