

Course Description

Department of Mathematics

Nature of the course <input type="checkbox"/> required <input checked="" type="checkbox"/> elective		Area 麻煩老師勾選類別，或直接填寫_____。 <input type="checkbox"/> 代數與數論 <input type="checkbox"/> 分析 <input checked="" type="checkbox"/> 幾何與拓撲 <input type="checkbox"/> 計算與應用數學 <input type="checkbox"/> 機率 <input type="checkbox"/> 統計 <input type="checkbox"/> 離散數學 <input type="checkbox"/> 其他 <input type="checkbox"/> 論文研討、獨立研究			
Course number	免填	Section number		Number of credits	3
Course title	(中文) 幾何分析專題 (英文) TOPICS IN GEOMETRY ANALYSIS				
Instructor					
I. Contents : §0 Introduction §1 First and Second Variational Formulas for Area §2 Bishop Comparison Theorem §3 Bochner-Weitzenböck Formulas §4 Laplacian Comparison Theorem §5 Poincaré Inequality and the First Eigenvalue §6 Gradient Estimate and Harnack Inequality §7 Mean Value Inequality §8 Reilly's Formula and Applications §9 Isoperimetric Inequalities and Sobolev Inequalities §10 Lower Bounds of Isoperimetric Inequalities §11 Harnack Inequality and Regularity Theory of De Giorgi-Nash-Moser					
II. Course prerequisite :					
III. Reference material (textbook(s)) : 課本: Peter Li 講義					
IV. Grading scheme :					
V. Course Goal :					
教師簽名 : _____					