



課 綱 Course Outline

自然資源與環境學系碩士班一般組

中文課程名稱 Course Name in Chinese	國家公園地質專題				
英文課程名稱 Course Name in English	Special Topics in Geology of National Parks				
科目代碼 Course Code	NRES54180	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
<p>1. To develop geologic background, concepts, and principles through study of selected national parks in Taiwan.</p> <p>2. To examine the geologic framework and history, ancient/modern geologic processes, and factors influencing the present day landscape for each park area.</p> <p>3. To finish an essay of introducing the geology of a national park by reading the geological literature.</p>					
系教育目標 Dept.' s Education Objectives					
1	培養兼具國際視野與本土關懷的學生 To develop students who care about local issues and have an international perspective				
2	培養具備自然科學與社會科學知識的人才 To educate students to have knowledge of both the natural and social sciences				
3	培養具備環境倫理與人文素養的環境公民 To teach students to be environmental citizens (i.e., knowledgeable about environmental ethics and human issues)				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.' s Education Objectives	
A	能覺知多元的自然科學與社會科學理論並具備研究能力 To have knowledge of natural and social science theories				

B	具備自然資源與人類社會議題之調查分析、規劃與經營之能力 To be able to investigate, analyze, plan, and manage both natural resource and human social issues	
C	具備將環境倫理與生態思想落實於永續性生活型態的能力 To implement sustainable lifestyles based on environmental ethics and ecological principle	
D	能以整全式的觀點來解析環境問題，並具備發展系統性解決方案的能力 To resolve environmental issues and develop systematic solutions with a global perspective	
E	具備系統分析、未來思考、溝通協調與團隊合作的能力 The ability to analyze, plan, communicate, and coordinate with others (teamwork)	
F	具備終身學習、國際視野與外語溝通的能力 To instill the values of lifelong learning, an international perspective, and the ability to communicate in a foreign language	

圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated

課程大綱
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This course aims at introducing the geology of selected national parks in Taiwan. Topics to be discussed include: Earth' s Structure & Plate Tectonics; Earth Materials, Rock Cycle; Igneous Rocks; Volcanic Activity; Sedimentary Rocks, Weathering, Erosion, Deposition; Metamorphic Rocks; Metamorphism; Geologic Structures; Mountain Building Processes; Geologic Time; Geologic Landforms; Geologic Hazards; Geology of Taroko National Park; Geology of Yangmingshan National Park; and Geology of Kenting National Park. One required field trip to one of the national parks mentioned will be arranged.

資源需求評估 (師資專長之聘任、儀器設備的配合 . . . 等)
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

Participation: 20%; Homework/Assignments 20%; Final Exam: 30%; Term Paper: 30%

其他
Miscellaneous