



課 綱 Course Outline
自然資源與環境學系碩士班國際組

中文課程名稱 Course Name in Chinese	生態學專題				
英文課程名稱 Course Name in English	Special Topics on Ecology				
科目代碼 Course Code	NRESM0030	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	Non				
課程目標 Course Objectives					
The principle objective of this course is to examine the basic concepts and recent development in Ecology. By the end of the course, the students should be able to understand the debate encompassing the following questions: 1. Why are some animals and plants common while others are rare? 2. What factors determine the number of plants and animals in a population? 3. Why are there so many kinds of living things on earth? 4. How ecosystem works? 5. Concepts related to spatial analysis in ecosystem. 6. Value of biodiversity and importance of sustainability. 7. To understand the diversity of life and the processes responsible for shaping it.					
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 principles.	○
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 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

Course Outline

This course will first review basic concepts in ecology, such as life history, population dynamics and community structure. Then it will move to more advance topics, such as statistical ecology, evolutionary ecology, biodiversity and conservation, landscape ecology, physiological ecology and ecosystem ecology. This course is taught by six professors, each will cover one section that will last for three weeks. During each section, students are expected to read original works, participate in class discussion and give presentation on related topics.

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.)

1. Lecture room.

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

1. A variety of teaching methods will be used including lectures, student presentations, and classroom discussions

其他

Miscellaneous

Grading Criteria

1. Short essay (45%)

2. Oral presentation (30%)

3. Class participation and attendance (25%)