



## 課 綱 Course Outline

### 自然資源與環境學系碩士班

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	NRES54050	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>本課程主要授課對象為本系碩士班中，選擇以「專業訓練」作為修業規劃的學生。本課程將以應用生態學為主軸，講授生態學在環境問題分析與解決所扮演的角色。亦即，在課程進行中，學生將學習如何應用基礎生態學的知識，來處理農業生產、病蟲害、保育、乃至全球氣候變遷等問題。本系大學部開設的生態學必修課，可提供本課程各單元所需的基礎生態學知識，修課學生可善加利用。</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 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

#### Course Outline

- 1 Introduction - humans, nature and human nature
- 2 Ecological applications of niche theory
- 3 Life-history theory and management
- 4 Dispersal, migration and management
- 5 Conservation of endangered species
- 6 Pest management
- 7 Harvest management
- 8 Succession and management
- 9 Applications from food web and ecosystem theory
- 10 Landscape management
- 11 Dealing with global climate change

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.)

具備投影機及黑板的授課教室

#### 課程要求和教學方式之建議

#### Course Requirements and Suggested Teaching Methods

以教師講授為主，並引導學生進行討論。

#### 其他

#### Miscellaneous

出席 (20%)，課堂討論與平時作業 (20%)，期中考 (25%)，期末考 (25%)

教科書：Townsend, C. R. (2008) Ecological Applications: toward a sustainable world. Blackwell Publishing, ISBN: 978-1-4051-3698-3, 346 pp.