

國立中興大學 通識課程 教學大綱

Syllabus of NCHU General Education Course

課程名稱 course name	臺灣植物生態				
	Plant Ecology in Taiwan				
開課系所班級 dept. & grade	通識教育中心 General Education Center	學分 credits	2	規劃教師 teacher	國農學程 趙國容
課程屬性 course type	必修 compulsory	授課語言 language	中文或英文 Chinese/English	開課學期 semester	上或下 fall or spring
課程分類 course classification	109 學年度前入學新生適用 enrolled in or before academic year 2020		自然領域－生命科學學群		
	110 學年度起入學新生適用 enrolled in or after academic year 2021		核心素養－在地關懷		
課程簡述 course description	<p>本課程將介紹臺灣地區的生態特色、臺灣植物多樣性、以及臺灣植被分帶。臺灣地區雖面積狹小，但因位於熱帶與亞熱帶氣候交界，且地質多山（海拔梯度範圍為 0 至 3952 公尺）及多環境干擾（如颱風、地震等），造就了本地多樣性的生態環境。</p> <p>在此一小島上，我們即可綜觀全球熱帶生態系、溫帶生態系、以及寒帶生態系之縮影。並且，始從荷蘭殖民時代、以至日據時代、民國時期，至今已發現多達四千種以上的維管束植物，致使臺灣島已被列為地球陸域生態系生物多樣性熱點之一。</p> <p>因此，本課程將著重在介紹臺灣之自然環境及植物資源之多樣性。除此之外，為增進學生之自我學習能力，本課程亦將要求學生以專題報告的方式，介紹一種臺灣本土的植物(如原住民植物、農作物或特有植物等)的生態及特性，並介紹一個生態保護區(如國家公園或自然保留區)。如此一來，利用課堂引導、問題討論、專題報告等多重方式，將可協助學生體會臺灣自然之美。</p>				
	<p>The course will introduce the ecological characteristics of Taiwan, plant diversity in Taiwan, and the zonation of vegetation in Taiwan. Although Taiwan is a small Island, it is highly diverse in ecological environment due to locating in between tropics and subtropics climates, mountainous (with elevation ranging from 0 to 3952 m), and with several environmental disturbances (e.g., typhoons, earthquakes).</p> <p>In this tiny Island, we can have an overview of the global ecosystems in the tropical, temperate, and boreal regions. Moreover, from Dutch colonial period, Japanese colonial period, to current Republic of China period, more than 4000 vascular plant species have been discovered, making Taiwan as one of the biodiversity hotspots in terrestrial ecosystems on earth.</p> <p>Hence, this course will focus on introducing the diversity of natural environment and plant resources in Taiwan. Besides, to encourage students' active learning, students will need to give a presentation about the characteristics and ecology of one of the local plants in Taiwan, such as aboriginal plants, agricultural plants, or endemic species. Also, one presentation about a protected ecosystem (such as National parks or nature reserve). Overall, by course lecturing, question discussing, and presenting a plant topic, students can learn to appreciate the beauty of nature in Taiwan.</p>				

<p>教學目標 course objectives</p>	<p>1.引領非自然領域學生認知植物生態科學 2.增進學生對台灣地區植物生態特色與多樣性之認識 3.激發學生對保育自然環境及資源重要性之體認 4.以課堂引導、問題討論、及專題報告的方式，協助學生關懷在地自然環境 5.英語授課可增進本地生英語能力，同時協助外籍生對台灣生態環境之認知</p>				
<p>1. To guide students who are not in the field of natural science to understand plant ecology 2. To improve students' understanding in characteristics and diversity of plant ecology in Taiwan. 3. To inspire students' awareness of the importance of natural environment and resources conservation. 4. To lead students in concerning local natural environment based on course lectures, question discussion, and presentations. 5. Using English lecturing to improve local Taiwanese students' English ability, and to improve overseas students' perception of the ecological environment in Taiwan.</p>					
<p>先修課程 prerequisites</p>	<p>無 None</p>				
<p>六項核心能力配比 (加總為 100%) The 6 core learning outcomes add up to 100%</p>					
<p>人文素養 0%</p>	<p>科學素養 50%</p>	<p>溝通能力 20%</p>	<p>創新能力 0%</p>	<p>國際視野 0%</p>	<p>社會關懷 30%</p>
<p>Humanities Literacy</p>	<p>Scientific Literacy</p>	<p>Communication Skills</p>	<p>Innovative Ability</p>	<p>International Perspective</p>	<p>Social Concerns</p>
<p>教學方法 teaching methods</p>			<p>學習評量方式 evaluation</p>		
<p>講授、討論、報告 Teaching, discussion, and presentation</p>			<p>Oral presentations 30 % Quiz 20 % Exams 30 % Discussion 20 %.</p>		
<p>授課內容 (單元名稱與內容、習作/考試進度) course contents and homework/tests schedule</p>					
<p>週次</p>	<p>單元名稱與內容、習作/考試進度</p>				
<p>1</p>	<p>Introduction</p>				
<p>2</p>	<p>Ecological characteristics of Taiwan (1)</p>				
<p>3</p>	<p>Ecological characteristics of Taiwan (2) (Discussion)</p>				
<p>4</p>	<p>Vegetation of Taiwan (1)</p>				
<p>5</p>	<p>Vegetation of Taiwan (2) (Discussion)</p>				
<p>6</p>	<p>Plants in Taiwan (1) remarkable plants</p>				
<p>7</p>	<p>Plants in Taiwan (2) traditional plants</p>				
<p>8</p>	<p>Quiz for Taiwanese plants on campus</p>				
<p>9</p>	<p>Mid-term exam</p>				
<p>10</p>	<p>Plant diversity in Taiwan (1)</p>				
<p>11</p>	<p>Plant diversity in Taiwan (2) (Discussion)</p>				

12	Protected ecosystems in Taiwan (1)	
13	Protected ecosystems in Taiwan (2)	
14	Protected ecosystems in Taiwan (3)	
15	Protected ecosystems in Taiwan (4)	
16	Protected ecosystems in Taiwan (5)	
17	Conservation issues in Taiwan (Discussion)	
18	<i>Final exam</i>	
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教科書與參考書目 (書名、作者、書局/代理商...) textbooks & other references (title, author, publisher...)		
Tsai, H.-C. (eds.) 2005. Exploring Biodiversity in Taiwan. Council of Agriculture, Executive Yuan, R.O.C..		
課程教材 (教師個人網址請列在本校內之網址) teaching aids & teacher's website		
iLearning		
課程輔導時間 office hours		
另行公告 to be announced		