Course Map

Outline

Department Name	Department of Forestry
Class	Forest Science Program Note: 114-3 Curriculum Meeting: 1. Forest Surveying with Practice —Change from elective course to required course. 2. Introduction to Artificial Intelligence for Agriculture and Forestry—Add the elective course. 114-4 Curriculum Meeting: 1. Environmental Science in Forest—Change from elective course to required course. 2. Dendrology Laboratory—Change from elective course to required course.

Educational Objectives

No.	Item
1	Cultivate forest resource conservation and management professionals with integration, innovation capabilities and international perspectives

Student's Core Competencies

No.	Item	Corresponding to Educational Objectives No.
1	Basic knowledge and skills in forestry	1
2	Theories and practices in forest biology, conservation and ecology	1
3	Theories and practices in silviculture, forest genetics and breeding	1
4	Theories and practices in forest management	1
5	Basic knowledge and skills in forest biomaterial	1

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		1	2	3	4				
Required Courses									
森林測量學及實習	Forest Surveying with Practice	U	AB	S	3	4-100	2	Department of Forestry	2025-3 Change from elective course to required course
森林環境學	Environmental Science in Forest	U	A	S	2	1-20,2-40,3-40	2	Department of Forestry	2010-S1 正課 2023-2 update to elective 2025-4 Change from elective course to required course
樹木學實習	Dendrology Laboratory	U	B	S	1	2-100	2	Department of Forestry	2025-4 Change from elective course to required course
林木生理學	Tree Physiology	U	A	S	3	3-100	2	Department of Forestry	
樹木學	Dendrology	U	A	S	3	1-10,2-80,3-10	1	Department of Forestry	
森林測計學	Forest Mensuration	U	A	S	2	4-100	2	Department of Forestry	
森林測計學實習	Practice of Forest Mensuration	U	B	S	1	4-100	2	Department of Forestry	
森林生態學	Forest Ecology	U	A	S	2	1-30,2-40,3-10,4-20	3	Department of Forestry	Changed to 2 credits in semester 2024-2
遺傳學	Genetics	U	A	S	3	1-10,2-90	2	Department of Forestry	2019-S2 name update 原林木遺傳學
育林學及實習	Silviculture with Practice	U	AB	S	3	1-10,2-10,3-80	3	Department of Forestry	
森林資源評價學	Forest Resources Evaluation	U	A	S	2	1-10,2-10,4-80	3	Department of Forestry	
森林遙感探測學及實習	Remote Sensing in Forestry with Practice	U	AB	S	3	1-10,4-90	3	Department of Forestry	

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森林經營學	Forest Management	U	A	S	2	1-10,4-90	3	Department of Forestry	
森林經營學實習	Practice of Forest Management	U	B	S	1	1-10,4-90	3	Department of Forestry	
森林學	Forestry	U	A	S	2	1-100	1	Department of Forestry	
普通化學	General Chemistry	U	A	S	3	1-100	1	Department of Chemistry	2020-S1 update to compulsory
專題討論(一)	Seminar (I)	U	C	S	1	1-20,2-20,3-20,4-20,5-20	4	Department of Forestry	
專題討論(二)	Seminar (Π)	U	C	S	1	1-20,2-20,3-20,4-20,5-20	4	Department of Forestry	
生物化學	Biochemistry	U	A	S	4	1-100	4	Department of Food Science and Biotechnology	2010-S2 update to 4 credits
微積分(一)	Calculus(I)	U	A	S	2	1-100	1	Department of Applied Mathematics	2012-S2 semester change
微積分(二)	Calculus(II)	U	A	S	2	1-100	1	Department of Applied Mathematics	
森林遊樂學	Forest Recreation	U	A	S	2	1-30,4-70	3	Department of Forestry	2019-S1 update to 2 credits
林場實習(一)	Forest Camp (I)	U	B	S	1	2-50,3-50	3	Department of Forestry	Deleted in semester 2024-2
林場實習(二)	Forest Camp (II)	U	B	S	1	4-100	4	Department of Forestry	Deleted in semester 2024-2
林場實習－樹木學	Forest Field Practice - Dendrology	U	B	S	1	1-40,2-40,3-10,4-10	3	Department of Forestry	Added in semester 2024-2
林場實習－育林學	Forest Field Practice - Silviculture	U	B	S	1	1-10,2-30,3-50,4-10	4	Department of Forestry	Added in semester 2024-2
林場實習－森林測計學	Forest Field Practice - Forest Mensuration	U	B	S	1	1-20,2-30,4-50	3	Department of Forestry	Added in semester 2024-2
林場實習－森林經營學	Forest Field Practice - Forest Management	U	B	S	1	1-20,2-30,4-50	4	Department of Forestry	Added in semester 2024-2
統計學	Statistics	U	A	S	3	1-100	1	Department of Forestry	2013-S2 Addition
能高森林講座	Nenggao Forestry Lecture	U	C	S	2	1-20,2-20,3-20,4-20,5-20	3	Department of Forestry	2015-S2 addition 2017-S2 update eng name
森林土壤學	Forest Soil Science	U	A	S	2	1-80,2-10,3-10	2	Department of Forestry	2017-S1 addition
野生動物經營管理	Wildlife Management	U	A	S	3	2-50, 4-50	1	Department of Forestry	2018-S2 newly opened

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Elective Courses									
人工智慧概論與農林應用	Introduction to Artificial Intelligence for Agriculture and Forestry	U	A	S	2	4-100	2	Department of Forestry	2025-3 newly added
育林應用專論	Special Applied Topics in Silviculture	U	A	S	2	2-20,3-80	4	Department of Forestry	2023-M5 newly added, EMI, pre-course "Special Applied Topics in Silviculture"
遺傳學實驗	Lab in Genetics	U	B	S	1	1-10,2-90	2	Department of Forestry	2023-S2 newly added
造林應用及實習	Applications and Practices in Silviculture	U	AB	S	3	1-10,2-10,3-80	3	Department of Forestry	2023-S2 newly added, pre-course "Special Applied Topics in Silviculture"
森林資源研究方法與論文寫作	Principle of Research in Forest Resources and Scientific Writing	U	A	S	2	1-60,2-20,4-20	≧ 4	Department of Forestry	2022-M5 both MSc & bachelor 2023-M2 update to 2 credits
農業英文	English for Agriculture	U	A	S	1	1-100	2	College of Agriculture and Natural Resources	2022-M1 newly added
森林益康與創新應用	Forest Benefits and Innovation Application	U	A	S	2	1-20,2-20,3-20,4-20,5-20	≧ 4	Department of Forestry	2021-M3 newly added; both MSc & bachelor
野生動物經營管理實習	Lab of Wildlife Management	U	B	S	1	2-80,4-20	2	Department of Forestry	2018-S2 newly added
林木遺傳學實習	Practice of Forest Genetics	U	AB	S	2	1-5,3-85,4-10	2	Department of Forestry	2018-S1 newly added
森林衛星定位及繪圖	Satellite Positioning and Mapping for Forests	U	A	S	3	1-40,2-30,4-30	2	Department of Forestry	2017-S1 newly added
機器學習物種空間型態分析及模擬	Machine Learning for Spatial Pattern Analysis and Simulation in Species	U	A	S	3	1-40,2-30,4-30	3	Department of Forestry	2017-S1 newly added
地球空間資料萃取及模擬	Geospatial Data Extraction and Modeling	U	A	S	3	1-40,2-30,4-30	3	Department of Forestry	2016-S2 newly added

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Elective Courses									
永續休閒管理	Sustainable Leisure Management	U	A	S	2	4-100	2	Department of Forestry	2014-S1 newly added
林木分子遺傳與育種	Molecular Genetics and Breeding of Forest Trees	U	A	S	3	3-100	3	Department of Forestry	2015-S2 update name
木材化學及實驗	Wood Chemistry with Lab	U	AB	S	3	5-100	3	Department of Forestry	2012-S1 addition
木材物理及力學	Wood Physics and Mechanics	U	A	S	2	5-100	3	Department of Forestry	2012-S1 addition
森林環境學實習	Lab of Environmental Science in Forest	U	B	S	1	1-20,2-40,3-40	2	Department of Forestry	2010-S1 update to elective
國家公園概論	Introduction to National Parks	U	B	S	2	1-20,2-60,4-20	4	Department of Forestry	2010-S1 newly added 2016-S1 limit to 12 pax
林產學	Forest Products Technology	U	A	S	3	5-100	4	Department of Forestry	
木材組織學	Wood Anatomy	U	A	S	2	5-100	1	Department of Forestry	
木材成分之生化特性與其生合成	Biochemistry and Biosynthesis of Wood Components	U	A	S	2	5-100	3	Department of Forestry	
測量學	Surveying	U	AB	Y	4	4-100	2	Department of Soil and Water Conservation	
林業經濟學	Forestry Economics	U	A	S	2	4-100	3	Department of Forestry	
林業行政管理	Forestry Administration	U	A	S	2	4-100	4	Department of Forestry	
育林學原理	Principles of Silviculture	U	A	S	2	3-100	3	Department of Forestry	
經濟學	Economics	U	A	S	3	1-100	1	Department of Applied Economics	
樹木學概論	Introduction to Dendrology	U	A	S	2	2-100	1	Department of Forestry	
樹木生物力學	Biomechanics of Tree	U	A	S	2	1-10,5-100	4	Department of Forestry	
森林生態學實習	Practice of Forest Ecology	U	B	S	1	2-100	3	Department of Forestry	
台灣觀賞樹木	Ornamental Trees in Taiwan	U	A	S	2	2-80,3-20	3	Department of Forestry	

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Elective Courses									
都市林業	Urban Forestry	U	A	S	2	2-50,3-40,4-10	3	Department of Forestry	
演化生物學	Evolutionary Biology	U	A	S	3	2-100	3	Department of Forestry	
保育生物學	Conservation Biology	U	A	S	3	2-50, 4-50	1	Department of Forestry	2018-S1 update to 3 credits
熱帶雨林保育	Tropical Rain Forest Conservation	U	A	S	2	1-20,2-80	2	Department of Forestry	
生物保育海外研習	Overseas Study of Biological Conservation	U	C	S	1	1-20,2-80	4	Department of Forestry	
林木育種學	Tree Breeding	U	A	S	2	3-100	3	Department of Forestry	
森林美學	Forest Esthetics	U	A	S	2	2-25,3-25,4-50	1	Department of Forestry	
森林保護學	Forest Protection	U	A	S	2	1-20,2-20,3-60	3	Department of Forestry	
森林土壤學實驗	Lab of Forest Soil Science	U	B	S	1	1-20,3-80	2	Department of Forestry	
樹苗繁殖法	Tree Propagation	U	A	S	2	3-100	3	Department of Forestry	
林木生理學實驗	Lab of Tree Physiology	U	AB	S	2	3-100	2	Department of Forestry	
林木菌根及實習	Tree Mycorrhiza with Lab	U	AB	S	3	3-100	2	Department of Forestry	
育林學各論	Silviculture of Important Trees	U	A	S	2	3-100	4	Department of Forestry	
森林規劃	Forest Programming	U	A	S	2	1-10,4-90	4	Department of Forestry	
林業資料處理	Forestry Database and Data Processing	U	A	S	2	4-100	4	Department of Forestry	
木材市場	Timber Marketing	U	A	S	2	5-100	4	Department of Forestry	
森林景觀經營學	Forest Landscape Management	U	A	S	2	1-10,4-90	4	Department of Forestry	
整合森林資源調查與監測	Integrated Forest Inventory and Monitoring	U	A	S	3	4-100	4	Department of Forestry	
林政學	Forest Policy	U	A	S	2	4-100	4	Department of Forestry	
竹林經營法	Bamboo Forest Management	U	A	S	2	4-100	4	Department of Forestry	

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Elective Courses									
森林生長收穫學	Forest Growth and Yield	U	A	S	3	4-100	4	Department of Forestry	
畢業論文	Thesis	U	C	Y	2	1-25,2-25,3-25,4-25	4	Department of Forestry	
國際林業海外研習	Overseas Study of International Forestry	U	C	S	1	1-25,2-25,3-25,4-25	4	Department of Forestry	
林木結構與功能	Tree Structure and Function	U	A	S	1	4-100	4	Department of Forestry	
森林生物多樣性	Forest Biodiversity	U	A	S	2	1-10,2-70,3-10,4-10	3	Department of Forestry	2019-S2 update to 2 credits
集水區的環境監測與分析	Watershed Environmental Measurement and Interpretation	U	A	S	2	1-10,2-20,3-70	4	Department of Forestry	
大氣沈降與森林生態系養分循環	Atmospheric Deposition and Forest Nutrient Cycling	U	A	S	2	1-10,2-20,3-70	4	Department of Forestry	
植物分類原理	Principles of Plant Taxonomy	U	A	S	3	2-100	3	Department of Forestry	
經濟樹木學各論	Dendrology of Economical Important Species	U	A	S	2	2-100	3	Department of Forestry	
臺灣特有植物概論	Introduction to Endemic Plants in Taiwan	U	A	S	2	2-100	3	Department of Forestry	
植物地理學概論	Introduction to Phytogeography	U	A	S	2	2-100	3	Department of Forestry	
民俗植物學	Ethnobotany	U	A	S	2	1-20,2-80	3	Department of Forestry	
外來植物概論	Introduction to Alien Plants in Taiwan	U	A	S	2	1-10,2-90	3	Department of Forestry	
社會調查	Social Survey	U	A	S	2	4-100	4	Department of Forestry	
自然保護區管理	Natural Protection Area Management	U	A	S	2	1-20,2-80	4	Department of Forestry	
森林與氣候變遷	Forest and Climate Change	U	A	S	2	1-20,2-30,3-20,4-30	4	Department of Forestry	
林木資源經營	Timber Resources Management	U	A	S	2	4-100	4	Department of Forestry	

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Elective Courses									
社區林業	Community Forestry	U	A	S	2	4-100	4	Department of Forestry	
地景生態學	Landscape Ecology	U	A	S	3	2-20,4-80	4	Department of Forestry	
生態旅遊	Ecotourism	U	A	S	2	1-20,4-80	3	Department of Forestry	
地球空間資訊系統及製圖	Geo-spatial Information System and Map-making	U	A	S	3	4-100	2	Department of Forestry	
地球空間資料分析及應用	Geo-spatial Data Analysis and Applications	U	A	S	3	4-100	4	Department of Forestry	
森林生態學概論	An Introduction to Forest Ecology	U	A	S	2	1-40,2-40,3-10,4-10	1	Department of Forestry	Added in semester 2024-2
普通生物學	General Biology	U	A	S	3	1-100	1	Department of Life Sciences	2020-S1 update to elective 2021-M2 name change
普通化學實驗	Lab of General Chemistry	U	B	S	1	1-100	1	Department of Chemistry	
計算機概論	Introduction to Computer Science	U	A	S	3	1-100	1	Department of Information Systems	
農業概論	Introduction to Agriculture	U	A	S	2	1-100	1	College of Agriculture and Natural Resources	
地質學	Geology	U	A	S	3	1-100	1	Department of Soil and Environmental Sciences	
森林水文學	Forest Hydrology	U	A	S	2	1-100	3	Department of Soil and Water Conservation	
水土保持學	Soil and Water Conservation	U	A	S	2	1-100	2	Department of Soil and Water Conservation	
生物化學實習	Lab of Biochemistry	U	B	S	2	1-100	3	Department of Food Science and Biotechnology	
造園學	Introduction to Landscaping	U	A	S	3	1-100	3	Department of Horticulture	
樹病學	Forest Pathology	U	A	S	3	1-30,2-60,4-10	4	Department of Plant Pathology	
森林昆蟲學	Forest Entomology	U	AB	S	3	1-40,2-30,4-30	4	Department of Entomology	2022-M5 name change

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Elective Courses									
真菌學	Mycology	U	AB	S	4	1-100	2	Department of Plant Pathology	
氣候學	Climatology	U	A	S	3	1-100	1	Department of Soil and Environmental Sciences	

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