

系所課程地圖 Department Curriculum Map

系所概要 Department	
系所名稱 Department Name	水土保持學系 The Department of Soil and Water Conservation
班別 Division	學士班 Bachelor's Program

教育目標 Education Goals	
編號 Number	項目內容 Content
1	教導水土保持理論、技術與實務應用，並傳授跨領域相關知識與訓練。 英文：Teaching soil and water conservation theory, techniques, and practical applications and imparting interdisciplinary knowledge and training.
2	培養具獨立思考、創新與實作能力之水土保持科技人才。 英文：Developing soil and water conservation professionals with independent thinking, innovation, and practical skills.
3	培養團隊合作精神與溝通協調整合能力。 英文：Fostering teamwork spirit and communication, coordination, and integration capabilities.
4	建立水土資源保育利用之多元價值觀與國際觀。 英文：Establishing diverse values and an international perspective for the conservation and utilization of soil and water resources.

學生核心能力 Student Core Competencies		
編號 Number	項目內容 Content	對應教育目標編號 Corresponding Education Goal Number
A	整合跨領域知識與技術，有效執行專長事業。 Integrating interdisciplinary knowledge and techniques, and efficiently executing professional business.	14
B	培養溝通協調能力，強化團隊合作之精神。 Abilities of communication and coordination, and building-up attitudes for teamwork.	34
C	養成獨立思考能力及解決問題之技巧。 Developing independent thinking and problem-solving skills.	2
D	強化水土保持之社會責任與宣導觀念。 Raising students' awareness of social responsibility and the importance of soil and water conservation.	14

- ※附註 Note:
1. 各系所所屬之班別，含學士班、碩士班、博士班等，請分別填寫。 1. Complete the map separately for each division, including Bachelor's, Master's, and Doctoral program.
- 例如：資管學士班需填寫表二及表三；資管碩士班也須填寫表二及表三。 For example, Forms 2 and 3 must be completed for Bachelor's program in Management Information Systems, and also for Master's program in for Bachelor's program in Management Information Systems.
2. 教育目標及核心能力之代號皆以英文字母大寫為主。 2. Codes for Education Goals and Core Competencies must be in uppercase English alphabet letters.
3. 可依不同班（組）別填寫教育目標及核心能力。 3. Education Goals and Core Competencies can be specific to the division in question.

承辦人簽章 Signature of Processing Clerk: 規劃單位主管簽章 Head of Planning Unit: 年 月 日 Date:

課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點 (附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Year of Study	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
院核心課程(若無免填，請加註必修、選修) College Core Courses (not required if none, otherwise please indicate Required Courses and Elective Courses)									
微積分 (一)	Calculus (I)	U	A	Y	3	B(30%) C(70%)	1	應數系Department of Applied Mathematics	必修 Required Courses
微積分 (二)	Calculus (II)	U	A	Y	3	B(30%) C(70%)	1	應數系Department of Applied Mathematics	必修 Required Courses
普通物理學	General Physics	U	A	S	3	A(70%) C(30%)	1	物理系Department of Physics	必修 Required Courses
必修課程 Required Courses									
普通物理學實驗	General Physics Lab	U	B	S	1	A(35%) B(35%) C(30%)	1	物理系Department of Physics	
測量學	Surveying	U	A	Y	2	C(100%)	1	水保系DSWC	
測量學實習	Practice of Surveying	U	B	Y	2	C(100%)	1	水保系DSWC	分AB班 Divide into
地質學	Geology	U	A	S	2	A(70%) C(30%)	1	水保系DSWC	
氣象學	Meteorology	U	AB	S	3	A(50%) D(50%)	1	水保系DSWC	
土壤物理學	Soil Physics	U	A	S	2	A(25%) B(25%) C(25%) D(25%)	1	水保系DSWC	
土壤物理學實習	Practice of Soil Physics	U	B	S	1	A(25%) B(25%) C(25%) D(25%)	1	水保系DSWC	分AB班 Divide into
應用力學	Applied Mechanics	U	A	S	3	A(50%) C(50%)	1	水保系DSWC	
統計學	Statistics	U	A	S	3	A(30%) B(10%) C(50%) D(10%)	2	水保系DSWC	
工程數學(一)	Engineering Mathematics (I)	U	A	S	3	C(100%)	2	水保系DSWC	
流體力學	Fluid Mechanics	U	A	S	3	C(100%)	2	水保系DSWC	
水文學	Hydrology	U	A	S	3	A(40%) B(30%) C(30%)	2	水保系DSWC	
植生工程	Vegetation Engineering	U	A	S	3	A(50%) D(50%)	2	水保系DSWC	
土壤力學	Soil Mechanics	U	A	S	3	A(50%) C(50%)	2	水保系DSWC	
渠道水力學	Open Channel Hydraulics	U	A	S	3	A(40%) C(60%)	3	水保系DSWC	
水土保持工程(一)	Soil and Water Conservation Engineering (I)	U	A	S	2	A(50%) D(50%)	3	水保系DSWC	
沖蝕原理	Principles of Soil Erosion	U	AB	S	3	A(50%) C(50%)	3	水保系DSWC	
鋼筋混凝土學	Reinforced Concrete Design	U	A	S	3	A(30%) C(70%)	3	水保系DSWC	
集水區經營	Watershed Management	U	A	S	2	A(30%) B(35%) C(35%)	4	水保系DSWC	

※附註：規劃要點填表說明：（ 1 到 4 各欄位請填正確代表字母 ）

Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.

2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究.....等。

2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.

3：S -學期課、Y -學年課。3: S-Semester course, Y-Year-long course.

4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點 (附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Year of Study	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
選修課程 Elective Courses									
工程經濟	Engineering Economics	U	A	S	2	A(50%) C(50%)	1	水保系DSWC	
工程圖學	Engineering Graphics	U	AB	S	2	A(50%) C(25%) D(25%)	1	水保系DSWC	
水土保持學概論	Introduction to Soil and Water Conservation	U	A	S	2	A(25%) B(25%) C(25%) D(25%)	1	水保系DSWC	
電腦繪圖	Computer Drawing	U	A	S	3	A(50%) B(20%) C(20%) D(10%)	1	水保系DSWC	
普通化學	General Chemistry	U	A	S	3	A(70%) C(30%)	1	化學系Department of Chemistry	
普通化學實驗	General Chemistry Lab	U	B	S	1	A(35%) B(35%) C(30%)	1	化學系Department of Chemistry	
農業英文	English for Agriculture	U	A	S	1	A(35%) B(35%) C(30%)	1	農資院College of Agriculture and Natural Resources	
農業概論	Introduction to Agriculture	U	A	S	2	A(25%) B(25%) D(50%)	2	農資院College of Agriculture and Natural Resources	
地形學	Geomorphology	U	A	S	3	A(50%) C(25%) D(25%)	2	水保系DSWC	
生態學	Ecology	U	A	S	3	A(25%) B(25%) C(25%) D(25%)	2	水保系DSWC	
工程測量學	Engineering Surveying	U	A	S	1	A(30%) B(30%) C(20%) D(20%)	2	水保系DSWC	
工程測量學實習	Practice of Engineering Surveying	U	B	S	1	A(30%) B(30%) C(20%) D(20%)	2	水保系DSWC	
園藝學	Horticulture	U	A	S	2	A(50%) B(20%) C(10%) D(20%)	2	園藝系Department of Horticulture	
工程統計學	Engineering Statistics	U	A	S	3	A(30%) B(20%) C(30%) D(20%)	2	水保系DSWC	
資源保育學	Resources Conservation	U	A	S	2	A(25%) B(25%) C(25%) D(25%)	2	水保系DSWC	
航空測量學	Photogrammetry	U	A	S	3	A(50%) B(10%) C(20%) D(20%)	2	水保系DSWC	
工程數學(二)	Engineering Mathematics (II)	U	A	S	3	A(40%) C(60%)	2	水保系DSWC	
材料力學	Material Mechanics	U	A	S	3	A(25%) B(25%) C(25%) D(25%)	2	水保系DSWC	
土壤力學實驗	Soil Mechanics Lab	U	B	S	1	A(20%) B(50%) C(30%)	2	水保系DSWC	
流體力學實驗	Fluid Mechanics Lab	U	B	S	1	A(30%) B(30%) C(30%) D(10%)	2	水保系DSWC	
保育植物學	Plant Materials for Soil Conservation	U	A	S	3	A(50%) C(25%) D(25%)	2	水保系DSWC	
行政法(一)	Administrative Law (I)	U	A	S	3	A(50%) C(50%)	2	法律學系	
環境科學	Environmental Science	U	A	S	3	A(30%) B(20%) C(25%) D(25%)	2	水保系DSWC	
土壤管理	Soil Management	U	A	S	3	A(40%) C(20%) D(40%)	2	水保系DSWC	
應用水文學	Applied Hydrology	U	A	S	3	A(70%) D(30%)	3	水保系DSWC	
坡地保育規劃設計	Planning and Design for Slope Land Conservation	U	A	S	3	A(25%) B(25%) C(25%) D(25%)	3	水保系DSWC	
非黏性流體力學	Inviscid Fluid Mechanics	U	A	S	3	C(100%)	3	水保系DSWC	
景觀規劃	Landscape Planning	U	A	S	2	A(50%) C(50%)	3	水保系DSWC	
景觀規劃實習	Practice of Landscape Planning	U	B	S	1	A(50%) C(50%)	3	水保系DSWC	
水土保持工程實習(一)	Practice of Soil and Water Conservation Engineering (I)	U	B	S	1	A(50%) D(50%)	3	水保系DSWC	
工程數學(三)	Engineering Mathematics (III)	U	A	S	3	C(100%)	3	水保系DSWC	

結構學	Structural Analysis	U	A	S	3	C(100%)	3	水保系DSWC	
數值分析導論	Introduction to Numerical Analysis	U	A	S	3	C(100%)	3	水保系DSWC	
基礎工程	Foundation Engineering	U	A	S	3	A(25%) B(25%) C(25%) D(25%)	3	水保系DSWC	
灌溉與排水工程	Irrigation and Drainage Engineering	U	A	S	3	A(40%) B(30%) C(30%)	3	水保系DSWC	
水土保持工程(二)	Soil and Water Conservation Engineering (II)	U	A	S	3	A(50%) D(50%)	3	水保系DSWC	
程式語言	Programming Language	U	A	S	3	B(35%) C(65%)	3	水保系DSWC	
防災管理	Disaster Prevention Management	U	A	S	3	A(30%) B(30%) C(20%) D(20%)	3	水保系DSWC	
水土保持推廣	Soil and Water Conservation Extension	U	A	S	2	A(35%) C(35%) D(30%)	3	水保系DSWC	1150108系課程會改英文課名 Change the English course title in Department Curriculum Meeting on 1150108
專題研究	Reasearch on Specific Topics in Soil and Water Conservation	U	C	S	1	A(20%) B(80%)	3	水保系DSWC	
農村發展理論	Rural Development Theory	U	A	S	3	A(35%) B(35%) C(30%)	3	水保系DSWC	1120803系課程會新增 Added in Department Curriculum Meeting on 1120803
農村再生操作實務	Practical Operation of Rural Regeneration	U	A	S	3	A(35%) B(35%) C(30%)	3	水保系DSWC	1120803系課程會新增 Added in Department Curriculum Meeting on 1120803
岩石力學	Rock Mechanics	U	A	S	3	A(30%) B(30%) C(20%) D(20%)	4	水保系DSWC	
地理資訊系統	Geographic Information Systems	U	A	S	3	A(50%) C(50%)	4	水保系DSWC	
資源品質學	Resources Quality	U	A	S	3	A(30%) B(10%) C(20%) D(40%)	4	水保系DSWC	
防風定砂	Wind Erosion Control	U	A	S	3	A(50%) C(30%) D(20%)	4	水保系DSWC	
道路工程	Roadway Engineering	U	A	S	3	A(50%) D(50%)	4	水保系DSWC	
崩塌地防治工程	Landslide Mitigation Engineering	U	A	S	2	A(40%) B(10%) C(40%) D(10%)	4	水保系DSWC	
地下水	Introduction to Groundwater	U	A	S	2	A(30%) B(20%) C(20%) D(30%)	4	水保系DSWC	
工程地質	Engineering Geology	U	A	S	3	A(40%) B(30%) C(20%) D(10%)	4	水保系DSWC	
生態工程	Ecological Engineering	U	A	S	3	A(30%) B(10%) C(20%) D(40%)	4	水保系DSWC	
畢業論文	Thesis	U	C	Y	2	A(20%) B(80%)	4	水保系DSWC	
遙感探測學	Remote Sensing	U	A	S	2	A(50%) C(50%)	4	水保系DSWC	
海岸保護工程	Sea Coast Protection Engineering	U	A	S	2	A(50%) D(50%)	4	水保系DSWC	
水資源規劃	Planning of Water Resources	U	A	S	3	A(50%) C(50%)	4	水保系DSWC	
地震工程學	Earthquake Engineering	U	A	S	3	A(50%) B(30%) C(15%) D(15%)	4	水保系DSWC	
山坡地工程	Slope Engineering	U	A	S	2	A(40%) B(20%) C(40%)	4	水保系DSWC	
營建管理	Construction Management	U	A	S	3	A(50%) B(30%) C(15%) D(15%)	4	水保系DSWC	
水土保持法規	Law and Regulations of Soil and Water Conservation	U	A	S	2	C(50%) D(50%)	4	水保系DSWC	
水土保持法規實務	Practice of Soil and Water Conservation Law	U	A	S	2	A(50%) B(30%) C(10%)	4	水保系DSWC	
波浪力學	Wave Mechanics	U	A	S	3	A(40%) B(30%) C(30%)	4	水保系DSWC	
中等土壤力學	Intermediate Soil Mechanics	U	A	S	3	A(50%) C(50%)	4	水保系DSWC	
施工與估價	Construction and Cost Estimation	U	A	S	2	A(50%) C(50%)	4	水保系DSWC	

集水區污染	Watershed Pollution	U	A	S	2	A(50%) C(50%)	4	水保系DSWC	
水資源工程	Water Resources Engineering	U	A	S	3	A(35%) B(25%) C(15%) D(25%)	4	水保系DSWC	
水土保持實務實習	Soil and Water Conservation Professional Practices	U	B	S	1	A(20%) B(30%) C(25%) D(25%)	4	水保系DSWC	
水土保持試驗設計	Experiment Design of Soil and Water Conservation Engineering	U	B	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
工程地質特論	Special Topics in Engineering Geology	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
土壤力學特論	Special Topics on Soil Mechanics	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
大地工程特論	Special Topics on Geotechnical Engineering	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
計算水力學	Computational hydraulics	U	A	S	3	A(50%) C(50%)	4	水保系DSWC	進階課程 advanced courses
泥砂運動力學	Sediment Transport	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
河床演變學	River Morphology	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	進階課程 advanced courses
地形學特論	Special Topics in Geomorphology	U	A	S	3	A(15%) B(15%) C(40%) D(30%)	4	水保系DSWC	112-1學期起改 為進階課程 advanced

※附註：規劃要點填表說明：（ 1 到 4 各欄位請填正確代表字母 ）

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- 1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
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- 2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
- 3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
- 4：科目（全期或全年）總學分數（請填阿拉伯數字）。4: Total course (full-semester or full-year) credits (in Arabic numerals).

承辦人簽章 Signature of Processing Clerk:

規劃單位主管簽章 Head of Planning Unit:

年 月 日 Date:

[illegible]

Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

1: U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.

2: A-講演課、B-實習課 (請擇一表示)。2: A-Lecture course, B-Internship (choose one).

3：授課時數（6小時）。Class duration (6 hours).

4: 必/選修別。Required/elective.

※本表單編號 F3-41專業領域微課程規劃表，可由課務組表格下載/課程規劃用相關表格，或網址：<https://www.oaa.nchu.edu.tw/zh-tw/course-form/download-list.86>直接下載用。

[Click here to access and download this form \(F3-41\).](#)

*依本校「專業領域微課程實施要點」第一點及第二點，日間學制各學院、系、所、學位學程、室(中心)等教學單位，得依其教學特色或專業，每學期以每門課6小時課程時數，設計微課程內容，供學生組合式選擇學習，激發學生探索學習動機，培育跨領域知能。由教學單位提出微課程規劃表，經各級課程委員會審議通過後實施，於每學期18週內彈性安排上課。

According to Articles 1 and 2 of the University's Micro-Courses in Professional Fields Implementation Regulations, academic units within the full-time program system—such as colleges, departments, graduate institutes, degree programs, and centers—may, according to the characteristic of their teaching style or profession, design micro-courses with a course duration of 6 hours per course each semester. These micro-courses are intended for students to learn in a theme-oriented style, to stimulate their motivation, and to cultivate cross-disciplinary knowledge and skills. The academic units must submit a micro-course plan, which will be implemented upon approval by the respective curriculum committees at various levels. Classes will be flexibly arranged within the 18 weeks of each semester.

承辦人簽章 Signature of Processing Clerk:

規劃單位主管簽章 Head of Planning Unit:

年 月 日 Date: