

朝陽科技大學 093學年度第2學期教學大綱
Engineering Geology 工程地質

當期課號	1028	Course Number	1028
授課教師	賴俊仁	Instructor	LAI,JIUNN REN
中文課名	工程地質	Course Name	Engineering Geology
開課單位	營建工程系(四日)二B	Department	
修習別	必修	Required/Elective	Required
學分數	2	Credits	2
課程目標	認識礦物及岩石的種類和形成過程、地質年代、構造地質、台灣地質特性介紹、工程地質中的環境因素、工程地質在邊坡、水庫、壩工和隧道工程的應用及台灣案例介紹、工程地質圖的判讀繪製。	Objectives	This course will cover types of minerals and rocks and their formations, geological times, structural geology, plate tectonics, geology in Taiwan, environmental factors for engineering geology, applications of engineering geology on slopes, dams and tunnels, and cases in Taiwan.
教材	1. 洪如江，初等工程地質學大綱，地工技術發展基金會出版。2. 施國欽，大地工程學(三):工程地質篇，文笙書局。3. 蔡攀鰲，工程地質學，三民書局。	Teaching Materials	
成績評量方式	出席及作業 15%；小考(5次) 35%；期中考 25%；期末考 25%	Grading	Homework & Attendance 15%; Quizzes 35%; Midterm 25%; Final Exam 25%
教師網頁	http://www.cyut.edu.tw/~jrlai		
教學內容	地殼形成;礦物及岩石形成與種類(標本辨識);岩體中之弱面、地質構造(節理、褶皺)與地質年代;立體投影圖介紹、應用工程地質圖的判讀、應用;板塊運動、台灣地質;工程地質之計量化及其應用(岩體分類法介紹)邊坡破壞類型與監測工程地質在邊坡上之應用;	Syllabus	Formation of the earth's crust. Material factors of engineering geology including formation and types of minerals and rocks. Weak planes and geological structures in rock masses. Geological times.; Introduction and application of stereographic projection. Reading of geological maps. Plate tectonic. Geology of Taiwan.; Geological characteristics and formations in Taiwan. Environmental factors for geological engineering. Rock mass classifications. Types of slope failures and monitoring of slopes. Application of engineering geology on slopes.

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