國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：周詩梵

Instructor:Chou, Shih-Fan

課程名稱：區塊鏈的介紹及其應用

Course Title：Introduction to Blockchain and Its Applications

2026/11/3

課程代號：CS5138701 Course Code 學分數：3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室：T2(LB-001) T3(LB-001) T4(LB-001) Time/Location	
專業核心能力： Core Professional Competencies	1 具備活用技術應用於產業之能力 2 具備跨領域整合和創新之能力
課程網址： Course Website	
課程宗旨： Course Objectives	This course is focusing on the introduction of both Bitcoin and Blockchain techniques. The applications based on these newly created techniques are then included. The students can get the knowledge about how to set up a global financial technology center in Taiwan.
課程大綱： Outline of Lectures	1. Cryptography and Blockchain Technology 2. Bitcoin Mining and Python Programming Demonstration 3. Consensus for Blockchain and Distributed Ledger Technologies 4. Token Economics and Valuation 5. Cryptocurrency as an Alternative Investment Class 6. A Look at Security and Privacy: Bitcoin, Cryptocurrencies and Blockchain Networks 7. Introduction to Blockchain Smart Contracts and Programming with Solidity for Ethereum 8. Architecting and Designing Your Own Blockchain Solution
授課方式： Method of Instruction	講授 Lecture：60% 分組討論 Group discussion：10% 案例研討 Case study：10% 操做練習 Practical exercises：20% 講授 Lecture：%
教科書： Textbooks	Blockchain and Smart Contracts: Design Thinking and Programming for Fintech, Lo, Swee Wo, Wang, Yu, Lee, David, 2021, 978-9-811-22368-6, World Scientific.
參考書目： References	Blockchain and Distributed Ledgers: Mathematics, Technology, and Economics, Alexander Lipton, Adrien Treccani, 978-9-811-22152-1, World Scientific.
修課須知： Notice	
評量方式： Grading	

	Grading - Midterm Exam 25% - Final Exam 25% - Programming Practices 20% - Paper Presentation & Report 20% - Case Study 10%
備註說明： Notes	Method of Instruction： - Lecture： 60 % - Group discussion：40 %